PNADC797

Agriculture-Led Export Businesses
مشروع دعم الأعمال الزراعية الموجهة للتصدير

The American University in Cairo
الجامعة الأمريكية بالقاهرة

Abt

Training program 5 (Export management certificate)

Feasibility Analysis
and Export Business Planning for Food Processing Projects for Export

دراسات الجدوى وتقييم المشروعات
وإعداد خطة العمل لمشروعات التصنيع الغذائي الموجهة للتصدير

PN-ADC-797

مدخل مبسط للتحليل المالي

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يهدف تحليل القوائم المالية التي تنشر كل ثلاثة شهور إلى الكشف على التطورات التي حدثت في البنود الخاصة بتلك القوائم خلال فترة معينه وتقسم هذه القوائم إلى

الميزانية العمومية **Balance Sheet**

وقائمة الدخل **Income Statement**

وعادة تنشر هذه القوائم مع مقارنة لنفس الفترة العام الماضي وينبغي على المستثمر إن ينتبه التغيرات الجوهرية وان يقوم بمقارنتها بسنوات ماضية لمعرفة هل تلك التغيرات تمثل اتجاها بالشركة أم هي اتجاها طارئا وهذا بالطبع أمور لها أهميتها لقرار الاستثمار في شركة معينه (دراسة سلوك الزيادة والنقص في البنود) وهذا ما يسمى التحليل الأفقي كذلك يتم استخدام التحليل الرأسي لبنود الميزانية الذي يدرس العلاقة بين بنود الميزانية خلال فترة معينه ويتطلب هذا التحليل إيجاد النسبة بين قيمة كل بند من الميزانية وبين إجمالي البنود في الميزانية . وان استخدام هذا الأسلوب من التحليل على أساس النسب المئوية يجعل من الممكن أجراء المقارنة بين شركات من إحجام مختلفة واختيار أفضلها .

ولذلك كان لزاما علينا معرفة هذه النسب المالية وتقسم إلى خمس مجموعات أساسية

المجموعة الأولى :- نسب السيولة

المجموعة الثانية :- نسب النشاط

المجموعة الثالثة :- نسب الاقتراض

المجموعة الرابعة :- نسب التغطية

المجموعة الخامسة :- نسب الربحية

نسب السيولة **Liquidity Ratios**

وتقيس هذه النسب قدرة الشركة على الوفاء بالالتزامات قصيرة الأجل أي بما تملك من نقدية أو أصول أخرى يمكن تحويلها إلى نقد في فترة قصيرة نسبيا وتسمى (الأصول المتداولة **Current Assets**)

وكما يبدو فان نسب السيولة تعد مؤشرا لمدى احتمال تعرض الشركة لمخاطر الإفلاس التي تنجم عن فشلها في سداد ما عليها من التزامات ومن هذه النسب نسبة التداول ونسبة السيولة السريعة

إما نسبة التداول (Current Ratios)

فنحصل عليها بقسمة الأصول المتداولة (Current Assets) على (Current Liabilities) الخصوم المتداولة (وحاصل القسمة هو كم مرة تكفي هذه الأصول لتغطية الالتزامات وتقارن هذه النسبة بنسبة القطاع التي تنتمي إليه الشركة فإذا كانت اقل من نسبة القطاع معنى ذلك عدم قدرة الشركة على أداء الالتزامات بالمقارنة بمتوسط الشركات التي تنتمي للصناعة

إما نسبة السيولة السريعة (Quick Liquidity Ratios)

ونحصل عليها بقسمة الأصول المتداولة مطروحا منها قيمة المخزون مقسوما على الخصوم المتداولة وتأتي أهمية هذه النسبة إنها تقيس قدرة الشركة على سداد الالتزامات قصيرة الأجل دون الاتجاه إلى بيع المخزون فإذا كانت النسبة منخفضة واقل من معيار الصناعة معنى ذلك إن الشركة لا تستطيع إن تسد خصومها المتداولة بالكامل إلا إذا باعت مخزونها السلعي

نسب النشاط Activity Ratios

إن هذه النسب المالية ضرورية جدا لمعرفة كفاءة إدارة الأصول Assets أي تقيس مدى قدرة الإدارة على توليد المبيعات مما لديها من أصول .

وتكشف مقارنة نسب النشاط للشركة مع مثيلتها في الصناعة عما إذا كان الاستثمار في الأصول اقل أو أكثر من اللازم .

فالاستثمار الزائد عن الحاجة يمثل موارد مالية معطلة بل وقد تتكبد الشركة بسببه بعض التكاليف وكذلك فن عدم كفاية الاستثمار في الأصول من شانه إن يضيع على الشركة فرص تحقيق مبيعات إضافية وفي كلا الحالتين تتأثر الربحية سلبيا وتتأثر معها القيمة السوقية لأسهم الشركة

ونسب النشاط كثيرة ولكني سأشرح اثنين منها لسهولة الحصول على أرقام مهما من الميزانية

1- معدل دوران المخزون Inventory turnover

2- معدل دوران مجموع الأصول Total asset turnover

وهذا شرح تفصيلي لكل منها

معدل دوران المخزون Inventory turnover

وتحسب هذه النسبة بقسمة **Sales** على **Inventory** والنتيجة يتم مقارنتها بمعيار الصناعة (أي متوسط دوران المخزون في مجموع الشركات لنفس الصناعة) فإذا كانت النتيجة أكبر من معيار الصناعة فهذا دلالة إيجابية تدل على سرعة حركة المخزون السلعي للشركة وتصرف البضاعة المنتجة

معدل دوران مجموع الأصول **Total asset turnover**

ويمكن حسابها كالتالي قسمة **Sales** على **Total Asset** وطبيعة الحال كلما ارتفع ناتج القسمة كلما كان يدل على زيادة المبيعات ويمكن مقارنة الناتج بمعيار الصناعة فإذا كان الرقم أقل من معيار الصناعة يدل ذلك إن الشركة لا تحقق مبيعات كافية تتناسب مع حجم الاستثمارات في الشركة وبالتالي يكون حل هذه المشكلة إما بزيادة المبيعات أو التخلص من الأصول بيعها أو القيام بالاثنين معا .

وهذا المعدل يتأثر كثيرا بحجم الشركة وطبيعة الصناعة فالشركات الضخمة (مثل السيارات والبترول) تقوم بالاستثمار المكثف في الأصول الثابتة بعكس الحال في الشركات الصغيرة .

وكذلك يهمنا الإطلاع على معدل دوران الحسابات المدينة **Receivables turnover ratio** لمعرفة سرعة دوران الحسابات المدينة ومعرفة درجة سيولتها ومقارنتها بمعيار الصناعة ومعها تعرف كفاءة الإدارة بوضع شروط منح الائتمان وفترة التحصيل .

المجموعة الثالثة - نسب الاقتراض **Debt Ratios**

تقيس هذه النسب المدى الذي ذهبت إليه الشركة في الاعتماد على الاقتراض في تمويل احتياجاتها ولهذه المجموعة من النسب تأثير إيجابي وآخر سلبي ومن ثم لابد إن يعطي لها المستثمر قدرا كافيا من الاهتمام .

فالتأثير الإيجابي لكون زيادة الاعتماد على القروض تعني انخفاض تكلفة الأموال بسبب الانخفاض النسبي لتكلفة هذا النوع من مصادر التمويل وأيضا من الوفورات الضريبية المتولدة على أساس إن فوائد القروض هي بين المصروفات التي تخصم من الإيرادات قبل حساب الضريبة

إما التأثير السلبي فان زيادة نسبة الاقتراض تعرض الشركة لمخاطر الإفلاس فزيادة القروض تعني زيادة عبء الفوائد المستحقة وتعني ضرورة تدبير قدر أكبر من الأموال لسداد تلك القروض عندما يحل استحقاقها وإذا فشلت

الشركة بالوفاء بتلك الالتزامات فقد ينتهي الأمر بإعلان إفلاسها وقد لا يتبقى شيء لحملة الأسهم من أموال التصفية

ومن الأمثلة على نسب الاقتراض

نسبة القروض إلى إجمالي الأصول **Debt ratio**

نسبة القروض إلى حقوق الملكية **Debt/equity ratio**

نسبة القروض إلى إجمالي الأصول **Debt ratio**

وتحسب كالتالي **Total Debt / Total Asset**

وتقيس هذه النسبة — النسبة المئوية للأموال التي تم الحصول عليها من المقرضين وتتضمن القروض) الخصوم المتداولة وجميع أنواع السندات والقروض طويلة الأجل) (**Total Liabilities +Long Term Debt**)

ويفضل الدائنون نسبة اقتراض متوسطة أو معقولة **50%** أو اقل حيث انه كلما انخفضت هذه النسبة تزاد هامش الأمان بالنسبة لهم في

حال إشهار إفلاس الشركة وبيع أصولها .

وعلى العكس من ذلك تفضل إدارة الشركة نسبة اقتراض مرتفعة لهذه الأسباب

1- زيادة الإرباح بواسطة هذه الأموال

2- إذا كانت نسبة الاقتراض مرتفعة بصورة غير طبيعية فان ذلك قد يساعد على بعض التصرفات غير المسؤولية من جانب الإدارة بمعنى

إنهم قد يلجأون إلى أسلوب المضاربة على نطاق كبير في عملياتهم معتمدين على الإرباح فهي إذا تحققت فهي ضخمة والأضرار محدودة في حالة تحقق الخسائر .

فمثلا إذا كانت النسبة مثلا **0.54** يتضح إن المقرضين قد قاموا بالمساهمة بأكثر من نصف الهيكل المالي للشركة وهذا يشكل خطر على الدائنين وسوف تجد الشركة صعوبة كبيرة في الاقتراض مرة ثانية

إما نسبة القروض إلى حقوق الملكية **Debt/equity ratio**

فتحسب بقسمة إجمالي الأصول على حقوق الملكية أي **Total Debt / Total Equity**

هذه النسبة توضح مدى الاعتماد من إجمالي القروض (**Total Liabilities +Long Term Debt**)

كمصدر من مصادر التمويل بالمقارنة بمصادر التمويل الداخلية (حقوق المساهمين) إن زيادة هذه النسبة معناها زيادة المخاطر التي قد يتعرض لها كل من الدائنين والمساهمين

المجموعة الرابعة:- نسب التغطية **Coverage Ratios**

هذه النسب تقيس قدرة الشركة على الوفاء بالأعباء الثقيلة مثل فوائد القروض وأقساط سداد القروض وهي مثل نسب الاقتراض التي سبق شرحها تعد مؤشرا للمخاطر المالية التي تتعرض لها الشركة .

فالفشل في سداد الفوائد وأقساط القروض كفيل بتعرض الشركة لمخاطر الإفلاس ومن هذه النسب

معدل تغطية الفوائد **Interest Coverage**

كما هو معلوم إن اغلب الشركات الأمريكية تستعمل القروض لتمويل إعمالها وتدفع بناء على ذلك الفوائد ولمعرفة مقدرة الشركة على تغطية الفوائد من الإرباح تقسم الإرباح الصافية على الفوائد وسيكون الناتج هو عدد مرات التغطية وكلما كان الرقم بالسالب أو اقل من واحد معنى ذلك عدم مقدرة الشركة على تسديد الفوائد من الإرباح مما قد يترتب علية اتخاذ إجراءات قضائية ضدها ينتج عنها كثير من الأحيان الإعلان عن الإفلاس وعليه الحال يجب مقارنتها بمعيار الصناعة لمعرفة وضع الشركة بالنسبة لمثيلاتها

المجموعة الخامسة:- نسب الربحية **Profitability Ratio**

تقيس هذه النسب قدرة الشركة على توليد الإرباح من الأموال المستثمرة في الشركة ولهذا تعد نسب الربحية مقياسا لقدرة الإدارة على الرقابة على تكاليف العمليات .

كما تعد مقياسا لقدرة الإدارة على توليد الإرباح من الأموال التي قدمها الملاك وتلك التي قدمها المقرضين ومن هذه النسب

1- هامش الربح الإجمالي **Gross Margin**

2- هامش صافي الربح **Net Profit Margin**

3- معدل العائد على الأصول **Return On Assets**

4- معدل العائد على حقوق الملكية **Return On Equity**

هامش الربح الإجمالي **Gross Margin**

هذه النسبة تظهر الهامش المتوفر لتغطية تكلفة جميع الوظائف الأخرى اللازمة لتحقيق بيع المنتج ويتم حساب هذه النسبة على أساس طرح تكلفة المبيعات من صافي المبيعات ثم قسمة الناتج على قيمة صافي المبيعات.

إن انخفاض هذه النسبة في الشركة قد يؤدي إلى انخفاض الإرباح التي تحققها الشركة بسبب استنفاذ جزء كبير جدا من هذا الهامش في مقابلة تكاليف الوظائف الأخرى مثل البيع وغيرها وبطبيعة الحال يمكن مقارنة هامش ربح الشركة بمعيار الصناعة .

هامش صافي الربح **Net Profit Margin**

يتم حساب هذه النسبة بقسمة صافي الربح بعد الضرائب على المبيعات وهذه النسبة تنفع عندما مقارنتها بنسب الشركات المماثلة في النشاط وفي الحجم وهي مؤشر للحكم على كفاءة إدارة الشركة في الرقابة على المبيعات.

معدل العائد على الأصول **Return On Assets**

وتقيس هذه النسبة العائد على مجموع استثمارات الشركة وتحسب كالتالي صافي الربح بعد الضرائب مقسوما على إجمالي الأصول **Total Assets** وكلما ارتفع الرقم يدل على كفاءة الإدارة في استخدام الأصول ويجب مقارنة النسبة بمعيار الصناعة .

معدل العائد على حقوق الملكية **Return On Equity**

وتحسب بقسمة صافي الدخل بعد خصم الضرائب مقسوما على حقوق الملكية **Equity** وكلما ارتفعت النسبة كان الأداء ايجابيا وكذلك يجب مقارنتها بالشركات المثيلة وبمعيار الصناعة

مثال:

المجموعة الأولى :- نسب السيولة

- نسبة التداول **Current Ratio**

بالرجوع الى ميزانية الشركة **Balance Sheet** يمكن حساب النسبة كما يلي:

Total Current assets / Total Current Liabilities = Current Ratio

مجموع الاصول المتداولة (الحالية) على مجموع الخصوم (الحالية) = النسبة الحالية

41,322 / 35,614= 1.16

XOM = 1.16

القطاع = 1.1

كلما ارتفع الرقم عن **1** كان افضل واذا كان اقل من **1** مثلا **0.7** يكون المركز المالي ضعيف

محسوبة من الربح الأخير

- نسبة السيولة السريعة **Quick Ratio**

بالرجوع الى ميزانية الشركة **Balance Sheet** يمكن حساب النسبة كما يلي:

(Cash and Equivalents + Receivables) / Total Current Liabilities = Quick Ratio

(النقد وما يوازيه + المستحقات) على مجموع الخصوم (الحالية) = النسبة السريعة

(9298 + 21409) / 35614 = 0.86

XOM = 0.86

القطاع = 0.8

المجموعة الثانية: - نسب النشاط

- معدل دوران المخزون **Inventory Turnover**

بالرجوع الى ميزانية الشركة Balance Sheet يمكن حساب المخزون Inventory

بالرجوع الى قائمة دخل الشركة Income Statement يمكن حساب كلفة المبيعات

Cost of Sales

Sum Cost of Sales for One Year / (Sum of Inventories / 4) = Inventory Turnover

مجموع تكلفة المبيعات لسنة على متوسط المخزون لآخر أربع ميزانيات ربعية = معدل دوران المخزون

30623 + 30147 + 35390 + 32211 /] (8395 + 8382 + 8304 + 8540)[4 / = 15.27 ·

XOM = 15.27

القطاع = **20.4**

كلما ارتفع الرقم كان افضل

- معدل دوران مجموع الأصول **Total Asset Turnover**

بالرجوع الى ميزانية الشركة Balance Sheet يمكن حساب الأصول Assets

بالرجوع الى قائمة دخل الشركة Income Statement يمكن حساب المبيعات Sales

Sum of sales for Last four Quarters / Total Assets for the Last Quarter = Asset Turnover

مجموع المبيعات لآخر سنة على مجموع الأصول للربع الأخير = معدل دوران مجموع الأصول

(49875 + 50782 + 76103 + 53249) / 147660 = 1.56

XOM = 1.56

القطاع **= 1.6**

المجموعة الثالثة : نسب الاقتراض **Debt Ratios**

نسبة القروض الى اجمالي الاصول **Debt Ratio**

بالرجوع الى ميزانية الشركة Balance Sheet يمكن حساب النسبة كما يلي:

Total Liabilities / Total Asset = Debt Ratio

الخصوم/الاصول = نسبة القروض

74686 / 147660 = 0.5 = 50%

نسبة القروض الى حقوق الملكية Debt/Equity Ratio

بالرجوع الى ميزانية الشركة Balance Sheet يمكن حساب النسبة كما يلي:

Long Term Debt / Common Stock Equity = Debt/Equity Ratio

7289 / 72974 = 0.1
XOM = 0.1
القطاع = 0.24

المجموعة الخامسة: نسب الربحية Profitability Ratio

هامش الربح الإجمالي Gross Margin

بالرجوع الى قائمة دخل الشركة Income Statement يمكن حساب النسبة:

Sum of Sales from the Last four Quarters) – (Sum of Cost of Sales from the last four Quarters) / (Sum of Sales from the Last four Quarters) x 100= Gross Margin

(مجموع المبيعات لآخر 12 شهر – مجموع كلفة المبيعات لآخر 12 شهر) / مجموع المبيعات لآخر 12 شهر * 100 = هامش الربح الإجمالي

(49875+50782+76103+53249) - (30623+30147+35390+32211) / 230009 * 100 = 44.2

XOM= 44.2%

القطاع= 25.9%

هامش صافي الربح **Net Profit Margin** .

بالرجوع الى قائمة دخل الشركة **Income Statement** يمكن حساب النسبة:

Last 12 Mo Net Income From Total Operations / Last 12 Mo Sales * 100= Net Profit Margin

مجموع الدخل من العمليات لآخر 12 شهر/المبيعات لآخر 12 شهر *100= هامش صافي الربح

(4285+4960+4905+4060) / (49875+50782+76103+53249) *100= 7.91%

XOM = 7.91%

القطاع= 4.8%

معدل العائد على الأصول **Return On Assets**

بالرجوع الى ميزانية الشركة **Balance Sheet** يمكن حساب الاصول **Total Assets**

بالرجوع الى قائمة دخل الشركة **Income Statement** يمكن حساب الدخل **Total Net Income**

Last 12 Mo Net Income From Total Operations / Total Assets for Last Quarter * 100 = Return On Assets

مجموع صافي الدخل لآخر 12 شهر / الاصول للربع الاخير * 100= معدل العائد على الأصول

(4285+4960+4905+4060) / 147660 *100 =12.3%

XOM =12.3%

القطاع= 10.8%

معدل العائد على حقوق الملكية **Return On Equity**

بالرجوع الى ميزانية الشركة Balance Sheet يمكن حساب حقوق الملكية Common Stock Equity

بالرجوع الى قائمة دخل الشركة Income Statement يمكن حساب الدخل Total Net Income

Last 12 Mo Net Income From Total Operations / Common Stock Equity for Last Quarter * 100 = Return On Equity

مجموع الدخل لآخر 12 شهر / حقوق الملكية لآخر ربع * 100 = معدل العائد على حقوق الملكية

(4285+4960+4905+4060) / 72974 *100 =25%

XOM = 25%

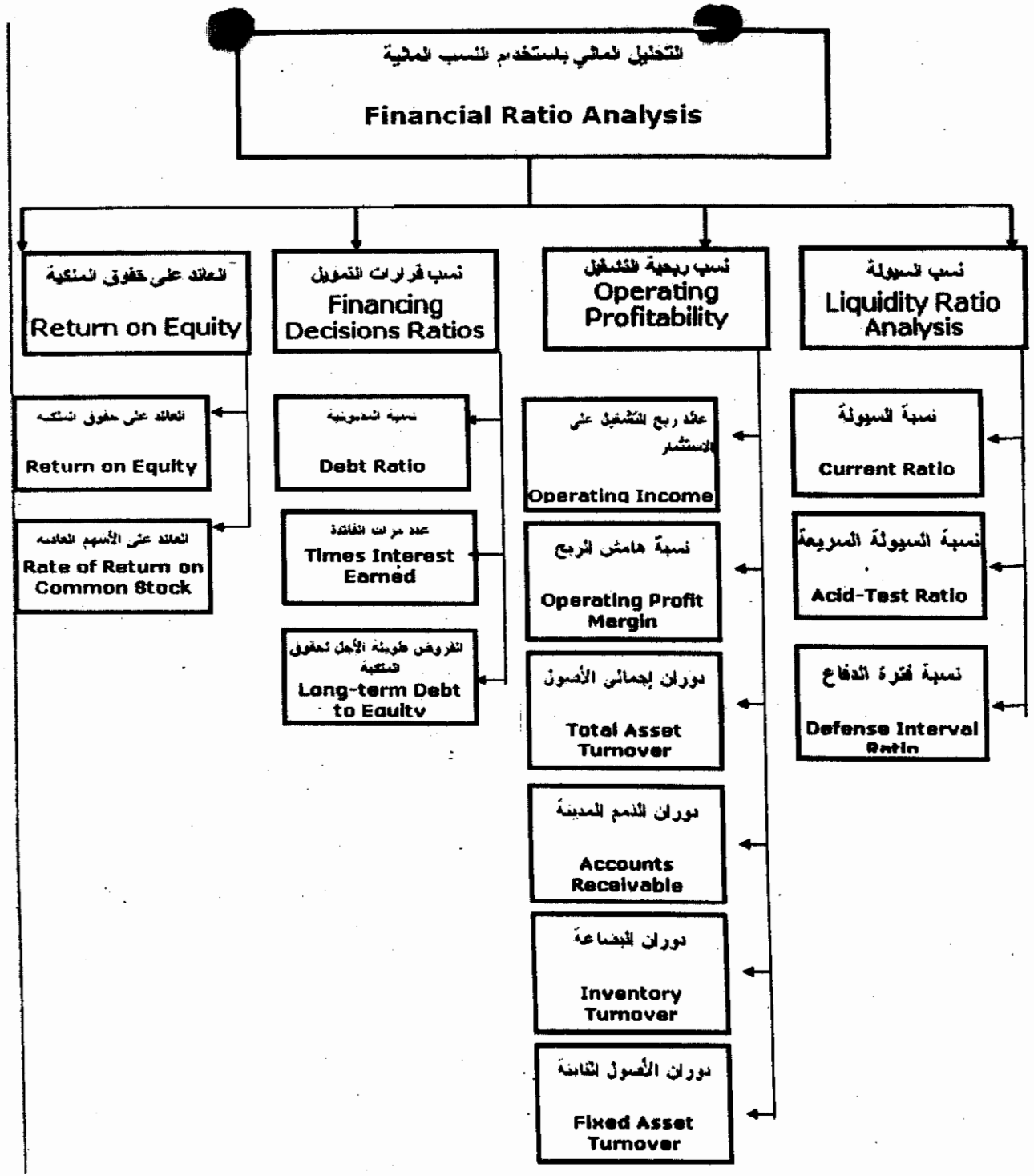
النتائج = 25.1%

Quarterly Balance Sheet	6-2001	3-2001	12-2000	9-2000	6-2000
Assets					
Current Assets					
Cash and Equivalents	9,298.0	10,906.0	7,080.0	6,644.0	5,813.0
Receivables	21,409.0	21,117.0	22,996.0	21,601.0	20,285.0
Inventories	8,395.0	8,382.0	8,304.0	8,540.0	8,499.0
Other Current Assets	2,220.0	2,122.0	2,019.0	2,664.0	2,454.0
Total Current Assets	41,322.0	42,527.0	40,399.0	39,449.0	37,051.0
Non-Current Assets					
Property, Plant & Equipment, Gross	186,273.0	185,923.0	187,746.0	186,007.0	187,437.0
Accum. Depreciation & Depletion	97,917.0	97,917.0	97,917.0	95,940.0	96,134.0
Property, Plant & Equipment, Net	88,356.0	88,006.0	89,829.0	90,067.0	91,303.0
Intangibles	0.0	0.0	0.0	0.0	0.0
Other Non-Current Assets	17,982.0	18,253.0	18,772.0	18,736.0	18,264.0
Total Non-Current Assets	106,338.0	106,259.0	108,601.0	108,803.0	109,567.0
Total Assets	**147,660.0**	**148,786.0**	**149,000.0**	**148,252.0**	**146,618.0**
Liabilities & Shareholder's Equity					
Current Liabilities					
Accounts Payable	25,307.0	25,164.0	26,755.0	27,646.0	27,217.0
Short Term Debt	3,890.0	5,560.0	6,161.0	6,713.0	6,617.0
Other Current Liabilities	6,417.0	6,637.0	5,275.0	5,416.0	4,758.0
Total Current Liabilities	35,614.0	37,361.0	38,191.0	39,775.0	38,592.0
Non-Current liabilities					
Long Term Debt	7,289.0	7,270.0	7,280.0	7,528.0	8,009.0
Deferred Income Taxes	16,194.0	16,357.0	16,442.0	0.0	0.0
Other Non-Current Liabilities	15,589.0	15,909.0	13,100.0	32,838.0	33,081.0
Minority Interest	0.0	0.0	3,230.0	0.0	0.0
Total Non-Current Liabilities	39,072.0	39,536.0	40,052.0	40,366.0	41,090.0
Total Liabilities	**74,686.0**	**76,897.0**	**78,243.0**	**80,141.0**	**79,682.0**
Shareholder's Equity					
Preferred Stock Equity	0.0	0.0	0.0	0.0	0.0
Common Stock Equity	72,974.0	71,889.0	70,757.0	68,111.0	66,936.0
Total Equity	72,974.0	71,889.0	70,757.0	68,111.0	66,936.0
Total Liabilities & Stock Equity	**147,660.0**	**148,786.0**	**149,000.0**	**148,252.0**	**146,618.0**
Total Common Shares Outstanding	6.9 Bil	6.9 Bil	7.9 Bil	7.0 Bil	7.0 Bil
Preferred Shares	0.0	0.0	3.5 Mil	0.0	0.0
Treasury Shares	1.1 Bil	1.1 Bil	1.1 Bil	1.1 Bil	1.1 Bil

الميزانية العمومية لشركة XOM الربع سنوية

Quarterly Income Statement	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sales	49,875.0	50,782.0	76,103.0	53,249.0	50,499.0
Cost of Sales	30,623.0	30,147.0	35,390.0	32,211.0	30,962.0
Gross Operating Profit	11,195.0	12,442.0	9,884.0	12,509.0	11,913.0
Selling, General & Admin. Expense	3,215.0	3,060.0	2,979.0	3,358.0	2,830.0
Other Taxes	8,057.0	8,193.0	30,829.0	8,529.0	7,624.0
EBITDA	7,980.0	9,382.0	6,905.0	9,151.0	9,083.0
Depreciation & Amortization	1,871.0	1,976.0	2,162.0	1,901.0	1,939.0
EBIT	6,109.0	7,406.0	4,743.0	7,250.0	7,144.0
Other Income, Net	1,083.0	1,224.0	4,309.0	0.0	0.0
Total Income Avail for Interest Exp.	7,025.0	8,509.0	8,750.0	6,878.0	6,942.0
Interest Expense	70.0	77.0	181.0	108.0	126.0
Minority Interest	83.0	212.0	157.0	73.0	110.0
Pre-tax Income	6,955.0	8,432.0	8,569.0	6,770.0	6,816.0
Income Taxes	2,587.0	3,260.0	3,507.0	2,637.0	2,706.0
Special Income/Charges	-167.0	-121.0	-302.0	-372.0	-202.0
Net Income from Cont. Operations	4,285.0	4,960.0	4,905.0	4,060.0	4,000.0
Net Income from Discont. Opers.	0.0	0.0	0.0	0.0	0.0
Net Income from Total Operations	4,285.0	4,960.0	4,905.0	4,060.0	4,000.0
Normalized Income	4,452.0	5,081.0	5,207.0	4,432.0	4,202.0
Extraordinary Income	0.0	0.0	0.0	0.0	0.0
Income from Cum. Eff. of Acct. Chg.	0.0	0.0	0.0	0.0	0.0
Income from Tax Loss Carryforward	0.0	0.0	0.0	0.0	0.0
Other Gains (Losses)	175.0	40.0	315.0	430.0	530.0
Total Net Income	**4,460.0**	**5,000.0**	**5,220.0**	**4,490.0**	**4,530.0**
Dividends Paid per Share	0.22	0.22	0.22	0.22	0.22
Preferred Dividends	0.00	0.00	0.00	0.00	0.00
Basic EPS from Cont. Operations	0.64	0.72	0.71	0.59	0.58
Basic EPS from Discont. Operations	0.00	0.00	0.00	0.00	0.00
Basic EPS from Total Operations	0.64	0.72	0.71	0.59	0.58
Diluted EPS from Cont. Operations	0.63	0.71	0.70	0.58	0.58
Diluted EPS from Discont. Operations	0.00	0.00	0.00	0.00	0.00
Diluted EPS from Total Operations	0.63	0.71	0.70	0.58	0.58

قائمة الدخل لشركة XOM الربع سنوية


التحليل المالي باستخدام النسب المالية
Financial Ratio Analysis
العائد على حقوق الملكية
Return on Equity
نسب قرارات التمويل
Financing Decisions Ratios
نسب ربحية التشغيل
Operating Profitability
نسب السيولة
Liquidity Ratio Analysis
العائد على حقوق الملكية
Return on Equity
العائد على الأسهم العادية
Rate of Return on Common Stock
نسبة المديونية
Debt Ratio
عدد مرات الفائدة
Times Interest Earned
القروض طويلة الأجل لحقوق الملكية
Long-term Debt to Equity
عائد ربح التشغيل على الاستثمار
Operating Income
نسبة هامش الربح
Operating Profit Margin
دوران إجمالي الأصول
Total Asset Turnover
دوران الذمم المدينة
Accounts Receivable
دوران البضاعة
Inventory Turnover
دوران الأصول الثابتة
Fixed Asset Turnover
نسبة السيولة
Current Ratio
نسبة السيولة السريعة
Acid-Test Ratio
نسبة فترة الدفاع
Defense Interval Ratio

نسبة السيولة Liquidity Ratios

م	معادلة لحساب النسب المالية	مدلول النسب المالية
1	نسبة السيولة Current Ratio - الأصول المتداولة الخصوم المتداولة	تقيس مدى سيولة المنشأة بشكل عام وبذلك فإنها تعطي دليل على مقدره الشركه من دفع ديونها من النقد ولدى البنوك
2	نسبة السيولة السريعة Acid- Test Ratio - الأصول المتداولة – البضاعة	تقيس مقدرة المنشأة على دفع ديونها من النقدية المتوفرة لديها ومن الحسابات الضريبية من النقد
3	نسبة فترة الدفاع Defensive- Interval Ratio - الأصول الدفاعية معدل المصاريف اليومية	تقيس هذه النسبة الفترة التي سيكون للمنشأة القدرة أن تعمل فيها اعتمادا على السيولة الحالية للمنشأة قبل اللجوء للإيرادات من السنه القادمه

نسب ربحية التشغيل Operating Profitability

م	معادلة احتساب النسب المالية	مدلول النسب المالية
1	عائد ربح التشغيل على الاستثمار = ربح التشغيل مجموع الأصول	تقيس مستوى ربح التشغيل إلى الأصول أي درجة فعالية استخدام المنشأة لأصولها .
2	نسبة هامش الربح = ربح التشغيل المبيعات	تقيس نسبة الربح في كل وحدة نقدية من مبلغ المبيعات
3	دوران إجمالي الأصول = المبيعات مجموع الأصول	تقيس مبلغ المبيعات لكل وحدة نقدية من مجموع الأصول . ودل أيضاً على فعالية استخدام المنشأة لأصولها .
4	دوران الذمم المدينة = المبيعات على الحساب الذمم المدينة	تقيس عدد مرات تحصيل الذمم المدينة خلال السنة الواحدة .
5	دوران البضاعة = تكلفة البضاعة المباعة البضاعة	تقيس عدد مرات تبدل البضاعة ودورانها خلال السنة .
6	دوران الأصول الثابتة = المبيعات صافي الأصول الثابتة	تقيس عدد مرات تغطية المبيعات للأصول الثابتة وبذلك تقيس الإنتاجية لكل وحدة نقدية من الأصول الثابتة.

نسب قرارات التمويل

م	معادلة احتساب النسب المالية	مدلول النسب المالية
1	نسبة المديونية Debt Ratio = مجموع الديون مجموع الأصول	تقيس درجه تمويل الأصول من خلال الديون
2	عدد مرات الفائده المكتسبة Times- Interest Earned ربح التشغيل =	تقيس ربح التشغيل المتوفر لخدمة الفائدة من حيث عدد مرات تغطية الفائدة المدفوعة لخدمة الديون

العائد على حقوق الملكية

Return on Equity

م	معادلة احتساب النسب المالية	مدلول النسب المالية
1	العائد على إجمالي حقوق الملكية = صافي الدخل إجمالي حقوق الملكية	تقيس مدى جاذبية العائد المحقق للمساهمين عند مقارنة ذلك مع المنشآت المماثلة العاملة في نفس النشاط
2	العائد على الأسهم العادية = صافي الدخل – فوائد الأسهم الممتازة معدل الأسهم العادية	تقيس مدى متاجرة الشركة في حقوق الملكية

Glossary

Accounts payable. Amounts a company owes to creditors.

Accounts receivable. Amounts owed to a company by customers that it sold to on credit. Total accounts receivable are usually reduced by an allowance for doubtful accounts.

Acid-test ratio. A ratio that shows how well a company could pay its current debts using only its most liquid or "quick" assets. It's a more pessimistic—but also realistic—measure of safety than the current ratio, because it ignores sluggish, hard-to-liquidate current assets like inventory and notes receivable. Here's the formula:

$$\frac{\text{Cash + Accounts receivable + Marketable securities}}{\text{Current liabilities}}$$

Accrual. A method of accounting in which you record expenses when you incur them and sales as you make them—not when you pay bills or receive checks in the mail.

Assets. Anything of value that a company owns.

Balance sheet. A "snapshot" statement that freezes a company on a particular day, like the last day of the year, and shows

the balances in its asset, liability, and stockholders' equity accounts. It's governed by the formula Assets = Liabilities + Stockholders' Equity.

BOND. A long-term, interest-bearing promissory note that companies may use to borrow money for periods of time such as five, ten, or twenty years.

BOOK VALUE. An asset's cost basis minus accumulated depreciation.

BOOK VALUE OF COMMON STOCK. The theoretical amount per share that each stockholder would receive if a company's assets were sold on the balance sheet's date. Book value equals:

$$\frac{\text{Stockholders' equity}}{\text{Common stock shares outstanding}}$$

CAPITAL. The money, raised by selling stock or bonds or taking out loans, that you use to start, operate, and grow a business.

CAPITAL IN EXCESS OF PAR VALUE. What a company collected when it sold stock for more than the par value per share.

CASH AND CASH EQUIVALENTS. The balance in a company's checking account(s) plus short-term or temporary investments (sometimes called "marketable securities"), which are highly liquid.

CASH-FLOW STATEMENT. A statement that shows where a company's cash came from and where it went for a period of time, such as a year.

CASH FLOWS FROM FINANCING ACTIVITIES. A section on the cash-flow statement that shows how much cash a company raised by selling stocks or bonds this year and how much was paid out for cash dividends and other finance-related obligations.

CASH FLOWS FROM INVESTING ACTIVITIES. A section on the cash-flow statement that shows how much cash came in and went out because of various investing activities like purchasing machinery.

CASH FLOWS FROM OPERATIONS. A section on the cash-flow

statement that shows how much cash came into a company and how much went out during the normal course of business.

Cost basis. An asset's purchase price, plus costs associated with the purchase, like installation fees, taxes, etc.

Cost of goods sold. The cost of merchandise that a company sold this year. For manufacturing companies, the cost of raw materials, components, labor and other things that went into producing an item.

Current assets. Cash, things that will be converted into cash within a year (such as accounts receivable), and inventory.

Current liabilities. Bills a company must pay within the next twelve months.

Current ratio. A ratio that shows how many times a company could pay its current debts if it used its current assets to pay them. The formula:

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

Declining balance. An accelerated depreciation method that calculates depreciation each year by applying a fixed rate to the asset's book (cost–accumulated depreciation) value. Depreciation stops when the asset's book value reaches its salvage value.

Depreciation. A technique by which a company recovers the high cost of its plant-and-equipment assets gradually during the number of years they'll be used in the business. Depreciation can be physical, technological, or both.

Dividend. A payment a company makes to stockholders.

Earnings before income tax. The profit a company made before income taxes.

Earnings per share of common stock. How much profit a company made on each share of common stock this year.

FIFO (First In, First Out). An inventory valuation method that presumes that the first units received were the first ones sold.

GENERAL-AND-ADMINISTRATIVE EXPENSES. What was spent to run the non-sales and non-manufacturing part of a company, such as office salaries and interest paid on loans.

GROSS PROFIT. The profit a company makes before expenses and taxes are taken away.

INCOME STATEMENT. An accounting statement that summarizes information about a company in the following format:

	Net Sales
–	Cost of goods sold
	Gross profit
–	Operating expenses
	Earnings before income tax
–	Income tax
=	Net income or (Net loss)

Formally called a "consolidated earnings statement," it covers a period of time such as a quarter or a year.

INCOME TAX. What the business paid to the IRS.

INVENTORY TURNOVER. The number of times a company sold out and replaced its average stock of goods in a year. The formula is:

$$\frac{\text{Cost of goods sold}}{\text{Average inventory (beginning inventory + ending)/2}}$$

LIABILITIES. What a company owes to its creditors. In other words, debts.

LIFO (Last In, First Out). An inventory valuation method that presumes that the last units received were the first ones sold.

LONG-TERM LIABILITIES. Bills that are payable in more than one year, such as a mortgage or bonds.

MACRS (Modified Accelerated Cost Recovery System). A depreciation method created by the IRS under the Tax Reform Act of 1986. Companies must use it to depreciate all plant and equipment assets installed after December 31, 1986 (for tax purposes).

MERCHANDISE INVENTORY. The value of the products that a

retailing or wholesaling company intends to resell for a profit. In a manufacturing business, inventories would include finished goods, goods in process, raw materials, and parts and components that will go into the end product.

Net income. The profit a company makes after cost of goods sold, expenses, and taxes are subtracted from net sales.

Net sales (revenue). The amount sold after customers' returns, sales discounts, and other allowances are taken away from gross sales. (Companies usually just show the net sales amount on their income statements, omitting returns, allowances, and the like.)

Notes receivable. Notes receivable are promissory notes that the company has accepted from its debtors. Most promissory notes pay interest. Those that are due within a year are shown under "Current Assets." Those that mature in more than a year would be listed under "Long-term Assets." If a note is being collected in installments, the payments due within the next twelve months are shown as a current asset, and the remainder is shown as a long-term asset.

Number of days sales in receivables (average collection period). The number of days of net sales that are tied up in credit sales (accounts receivable) that haven't been collected yet.

Operating expenses. The total amount that was spent to run a company this year.

Par value. An arbitrary value that a company may assign to its stock. Par value has no relationship to what the stock is selling for on the open market.

Profit. What's left over after you subtract the cost of goods sold and all your expenses from sales.

Property and equipment. Assets such as land, buildings, machinery, and equipment that the business will use for several years to make the product or provide the service that it sells. They are shown at the cost a company paid to buy or build them minus the amount they've depreciated since they were bought or built. (Except for land, which is not depreciated.)

RATE OF RETURN ON STOCKHOLDERS' EQUITY. The percentage return or profit that management made on each dollar stockholders invested in a company. Here's how you figure it:

$$\frac{\text{Net income}}{\text{Stockholders' equity}}$$

RATE OF RETURN ON TOTAL ASSETS. The percentage return or profit that management made on each dollar of assets. The formula is:

$$\frac{\text{Net income}}{\text{Total assets}}$$

RATIO OF DEBT TO STOCKHOLDERS' EQUITY. A ratio that shows which group—creditors or stockholders—has the biggest stake in or the most control of a company:

$$\frac{\text{Total liabilities}}{\text{Stockholders' equity}}$$

RATIO OF NET INCOME TO NET SALES. A ratio that shows how much net income (profit) a company made on each dollar of net sales. Here's the formula:

$$\frac{\text{Net income}}{\text{Net sales}}$$

RATIO OF NET SALES TO NET INCOME. A ratio that shows how much a company had to collect in net sales to make a dollar of profit. Figure it this way:

$$\frac{\text{Net sales}}{\text{Net income}}$$

RETAINED EARNINGS. Profits a company plowed back into the business over the years. Last January's retained earnings, plus the net income or profit that a company made this year (which is

calculated on the income statement), minus dividends paid out, equals the retained earnings balance on the balance sheet date.

Return on investment (ROI). In its most basic form, the rate of return equals net income divided by the amount of money invested. It can be applied to a particular product or piece of equipment, or to a business as a whole.

Salvage value. The amount management estimates a piece of equipment will be worth at the end of its useful life, either as a trade-in or if it were sold for scrap.

Selling expenses. What was spent to run the sales part of a company, such as sales salaries, travel, meals, and lodging for salespeople, and advertising.

Specific invoice prices. An inventory valuation method in which a company values the items in its ending inventory based on the specific invoices on which they were bought.

Stock. Certificates that signify ownership in a corporation. A share of stock represents a claim on a portion of the company's assets.

Stockholders' (or owners') equity. The value of the owners' interests in a company.

Straight-line depreciation. A depreciation method that depreciates an asset the same amount for each year of its estimated life.

Sum-of-the-years' digits. An accelerated depreciation method that makes the sum of the digits in an asset's expected life the denominator for a series of yearly depreciation fractions. The numerators of these fractions are the asset's years of life in reverse order. An increasingly smaller depreciation fraction is applied to the asset's (cost–salvage) value each year.

Units of production. A depreciation method that relates a machine's depreciation to the number of units it makes each accounting period. The method requires that someone record the machine's output each year.

Variable expenses. Those that vary with the amount of goods

you produce or sell. These may include utility bills, labor, etc.

VERTICAL ANALYSIS. A financial analysis technique that relates key amounts on the income statement and balance sheet to a 100 percent or base figure for the present and previous year. It shows the percentage change from last year to this year, making it easier to spot problems that require analysis.

WEIGHTED AVERAGE. An inventory valuation method that calculates a weighted average cost per unit for all the goods available for sale. Multiplying that figure by the total units in ending inventory gives you the inventory's value.

نمـــوذج خطـــة العمـــل

خطة العمل لمشروع جديد

(اسم الشركة)

(اسم مقدم الخطة)

(التاريخ)

(1)

استمارة خطة العمل لمشروع جديد

اســـم المشروع:----------

اســم مقدم الخطة:----------

التاريـــــــخ:----------

تفاصيـــل أوليـــــــة:-

*هل سجلت المنشأة لدى وزارة التجارة والصناعة: نعم ☐ لا ☐

*ما هو الشكل القانوني للمنشأة: مؤسسة فردية ☐ مشاركة ☐ شركة محدودة المسؤولية ☐

*تاريخ التسجيل (الشهر - السنة - المكان)

*راس المال المساهم المصرح به:———ر.ع

تفاصيل المساهمة في راس المال:-

الرقم	اسم المساهم	الجنسية	حجم المساهمة(راس المال المدفوع)	
			المبلغ	النسبة المئوية%
1				
2				
3				

طبيعة العمل:-

عنوان الاتصال:-

ص.ب. رقم:————

رمز بريدي :————

رقم الهاتف :————

خلفيـــة المؤسسيـــن:-

اسم المؤسس الرئيسي:----------
العمر:----------
الخبرة:----------سنوات:-

الفـــــترة	المنشـــــأة	اسم الوظيفـــة	مهـــام الوظيفـــة

- يرجى ذكر أهم المنجزات:-

- **التعليـــم:-**

الفتـــــرة	المؤسسة التعليمية	الشهـــــادة	المـــــواد

*تفاصيل المؤسسين الآخرين (إن وجدوا): تعطى هذه التفاصيل بنفس الطريقة الـواردة أعلاه.

الهيكل الإداري المقترح:-

(يرجى محاولة رسم مخطط للهيكل التنظيمي)

تفاصيـــل المشـــــروع:-

نبذة عن المشروع:-

يرجى إعطاء تفاصيل المشروع على أن يشمل ذلك النقاط التالية:-

- الموقع: يرجى أيضا ذكر المساحة الإجمالية التي يتطلبها المشروع وكذلك المساحة المشيدة.
- التكنولوجيا(إن كانت واردة)
- معلومات عن المنتج/الخدمة
- عملية التصنيع/الخدمة: وصف مفصل مع تبيان الإنتاجية في المراحل المختلفة.
- عدد نوبات العمل في اليوم
- الشركاء التقنيون
- المنافع المطلوبة:-

المنفعـــــــة	مدى توفرها في الموقع	القـــــدر المطلـــــوب
الكهرباء	متوفرة - غير متوفرة	ــــــــــــــــكيلوواط
المياه	متوفرة - غير متوفرة	ــــــــــــــــمتر مكعب يوميا
الغاز	متوفرة - غير متوفرة	ــــــــــــــــمتر مكعب يوميا
زيت الوقود	متوفرة - غير متوفرة	ــــــــــــــــلتر يوميا

العمالة المطلوبة:-

إداريـــــــة	
مهـــام مكتبيـــة	
عمالـــة ماهـــرة	
عمالـــة غير ماهـــرة	
سائقـــون / حـــراس	

- المواد الخـــام:-

من أين سوف تأتي بالمواد الخام؟

ما هو الحجم المطلوب من المواد الخام وكم سعر الوحدة؟

تفاصيل تكلفة المشروع

يرجى إعطاء تفاصيل تكلفة المشروع (بما في ذلك راس المال العامل) ويرجى -حيثما كان ممكنا- دعم الأرقام بعروض/مبررات.

البنـــــــــــود	ر.ع
الأرض وتسويتها	
المبـــــــاني	
الآلات والمعدات	
آلات احتياطيـــة	
المنافـــــــع	
أصـــول ثابتـــة متنوعـــة	
- معدات مكتبيه	
- أثاث وتركيبات	
- سيـــــارات	
رســـــــوم	
تكاليف تدريـــب	
مصروفات تأسيس الشركة	
مصاريف ما قبل التشغيل الاخرى	
فوائد خلال مرحلة التشييد	
طوارئ بنسبة 5%	
*رأس المال العامل	
إجمالـــــــي تكلفة المشروع	

بخصوص بنود تكلفة المشروع نقترح أن تحدد بوضوح المتطلب لكل بنـد علـى نحـو منفصل قبل أن تتوصل إلى الرقم النهائي لإدراجه في العمود . وفيما يتعلق براس المـال العامل يتوقع منك أثناء حسابك له أن تأخذ في الحسبان الممارسات التجارية السائدة حاليا في السوق بشأن تحصيل الحسابات المدينة.

أما مصاريف ما قبل التشغيل فإنها تعني المصاريف التي تتكبدها الـشركة قبـل ابتـداء عمليات التشغيل . وهذه قد تتضمن تكاليف الاتصالات والسفر وتعيين العاملين والرواتب خلال مرحلة ما قبل التشغيل الخ.

بخصوص الفوائد خلال مرحلة التشييد فإنها تعني الفوائد التي تتم مقابلتها خـلال فتـرة تجهيز وتشييد المشروع قبل بداية الإنتاج.

* لحساب راس المال العامل:
1- قم بحساب الموجودات المتداولة (ودائع لأجل، أرصدة لدى البنوك، النقدية، المدينون ..)
2- ثم قم بحساب المطلوبات المتداولة (مصاريف مستحقة الدفع، الدائنون، قروض لدى البنوك، مصاريف أخرى ..)
3- قم بإيجاد الفرق بينهما (الموجودات - المطلوبات) للحصول على رأس المال العامل
الذي هو الفرق بين الموجودات المتداولة والمطلوبات المتداولة

السوق:-

حجم السوق:-

يرجى إعطاء بيانات الطلب خلال الخمسة سنوات الأخيرة:-

	2000	1999	1998	1997	1996
المنتج 1					
المنتج 2					
المنتج 3					

العرض:-

يرجى تقديم قائمة بالواردات /الطاقات / انتاج الموردين المحليين

	2000	1999	1998	1997	1996
الإنتاج المحلي					
الواردات					

المنافسة:-

الاسم	عنوان الاتصال ورقم الهاتف	الطاقة

التسعيرة:-

يرجى تقديم تفاصيل التسعير المقترح

استراتيجية التسويق:-

اذكر خطوات استهداف اسواق جديدة عبر:-

- الاتصال بالعملاء: لمعرفة متطلباتهم.
- البحث عن منتجات تكميلية.
- المعارض التجارية.
- عرض منتجاتكم في المواقع التجارية والتسويقية على شبكة المعلومات في الحاسب الالي والتأهيل لذلك.
- دراسة استبيان السوق..

- البحوث والتطوير.

الميزات التنافسيـــة:-

نقـــاط القـــوة:

اذكر الأوجه التي ترى أنها تمثل نقاط قوة تنافسية تضمن النجاح . قد تتعلق هذه النقـــاط بالموقع أو تسعيرة المنتج أو التسليم أو الإدارة00000 الخ.

نقـــاط الضعـــف:

اذكر الأوجه التي ترى أنها تمثل نقاط ضعف قد تعوق تقدم المشروع . قد تتعلـــق هـــذه النقاط بنوع الخدمة أو تفاني العاملين أو نوع الآلات أو المصروفات العمومية000الخ.

التحليـــل المالـــــــي:-

بيان الأرباح والخسائر المتوقعة

(نناقش كلا من الجوانب الإيجابية والجوانب السلبية لقوائم الدخل إذ ينبغي عـدم محاولـة إخفاء أي حقيقة).

مرفق لك بالطي استمارة بيان الأرباح والخسائر المتوقعة لكـي تمثـل مرجعيـة لـك. وننصحك باتباع هذه الاستمارة إلى أقصى مدى ممكن حيث أن ذلك يضمن انك قد غطيت جميع التفاصيل . ولكل بند من بنود الإيرادات والمصروفات يرجى الأخذ فـي الحـسبان جميع التكاليف المحتملة لكي تصل إلى الرقم النهائي . مثلا تحت بند " الرواتب والأجور" يتوقع منك احتساب جميع التكاليف مثل الرواتب الأساسية والبدلات وتكلفة تجديد تأشيرات إقامة العمال الوافدين وقيمة تذاكر السفر ، وتكلفة التأمينات الاجتماعية وتكاليف مكافـآت نهاية الخدمة . وتحت بند "التامين" يتوقع منك أن تحسب ليس فقط التامين ضد الحريـق والأخطار الأخرى بل أيضا تامين العمال وتامين الخسارة التبعية (فقدان الأرباح)000الخ.

وننصحك أن تكون متحفظا بقدر الإمكان عند حساب التكاليف . وإذا كان المشروع وحدة تصنيع يرجى أن لا تتوقع أن تنتج هذه الوحدة بنسبة 100% من طاقتها التصميمية منـذ السنة الأولى فصاعدا.

قد تجد صعوبة في حساب الاستهلاك والفوائد ، لذا عليك أن تفترض فقط استهلاكا علـى طريقة النسبة المئوية الثابتة لعناصر تكلفة المشروع المختلفة . ولإعانتكم نرفق لكم بالطي جداول بشأن فئات الاستهلاك والفوائد.

* وفقا للمعايير المحاسبية العالمية ينبغي شطب جميع مصروفات ما قبل التشغيل خـلال السنة الأولى لعمليات التشغيل.

بيان نموذجي لحساب الأرباح والخسائر:-

	السنة (1)	السنة (2)	السنة (3)	السنة (4)	السنة (5)
الطاقة التصميمية					
الطاقة المستغلة					
الإنتاج					
إجمالي المبيعات (أ)					
تكلفة الإنتاج:-					
- تكلفة المواد الخام					
- تكلفة مواد التغليف والمواد المستهلكة					
- المنافع:الكهرباء والمياه والغاز وزيت الوقود					
- الرواتب والأجور					
- إيجار (المكاتب /السكن)					
- إصلاح وصيانة					
- تكلفة الإنتاج(ب)					
إجمالي الربح(ج):"أ"ناقصا"ب"					
المصروفات العمومية:-					
التامين					
المصاريف الادارية العمومية					
مصاريف البيع					
الفوائد:-					
- على القروض لاجل					
- على راس المال العامل					
- رسوم التمويل الايجاري					
- الاستهلاك					
- اطفاء مصروفات ما قبل التشغيل*					
- الربح قبل الضريبة (د):("ج"ناقصا المصروفات أعلاه)					
- الضريبة					
- الربح بعد الضريبة(هـ):("د" ناقصا الضريبة)					
- صافي التراكمات النقدية ("هـ"زائدا الاستهلاك زائدا					

الإطفاء)					

* وفقا للمعايير المحاسبية العالمية ينبغي شطب جميع مصروفات ما قبل التشغيل خلال السنة الاولى لعمليات التشغيل.

(10)

جدول الاستهلاك والإطفاء

بنود تكلفة المشروع:-

البنـــــــد	نسبة الاستهلاك السنوي (%)	المبلـــغ ر.ع
المباني	%5	
الآلات والمعدات	%10	
الآلات الاحتياطية /المنافع	%15	
الأثاث والتركيبات	%25	
المعدات المكتبية	%25	
السيارات	%25	

مصروفات ما قبل التشغيل:-

البنـــد	النسبة المئوية للاطفاء(%)	المبلغ(ر.ع)
مصروفات ما قبل التشغيل	%100	

Introduction

Approach and objectives of using FACT

This toolbox is prepared in a style intended to provide basic, practical knowledge and techniques for food processors for export, untrained in the discipline of finance and accounting. It is not intended to give an all embracing discussion on the intricacies of the principles of accounting and finance but to provide sufficient knowledge food processors for export to be aware of the financial implications of decision making, and aid in the following activities of marketing:

- an assessment of how well marketing strategy is working,
- an evaluation of alternative marketing activities,
- the development of future marketing plans, and
- controlling marketing activities.

Advantages of using FACT

The text is kept to a minimum in order to put over the principles in a concise way, but it includes both numerous worked and un-worked examples in order to achieve maximum understanding and reinforcement.

The utilization process is assisted through the provision of a number of aids. These are:

- Unit objectives; Each unit has specific objectives which prepare the user for the unit material and outline the outcomes.
- Figures and tables; Each unit is illustrated with relevant figures and tables which illustrate, encapsulate or summarize the text.
- Examples; Each unit contains examples which serve to illustrate the text and reinforce understanding of the principles. Each unit contains both worked and un-worked examples intended to ensure the user's understanding of both the concepts and the use of practical techniques involved in financial analysis.
- Key terms; Key terms are included at the end of each unit and are intended to act as an aide-memoire.
- Software; Excel based software are included to automate the process and enable the user to speed up the process to get results with minimal time and effort.

FACT Software

FACT toolbox includes three important Excel based software, the business plans templates, DuPont automated model, and technmatics comparisons software. Templates include will structured set of excel based work books for different food processing clusters while the DuPont automated model can be used as a simulation software to test different hypothesis and situations. The technmatics module will help food processors to compare their situation versus industry standards and/or leading companies in the cluster.

Hardware requirements

Running FACT modules the user need at least a PIII based PC with ate least 128 MB RAM, 30 MB of free disk space. It also important for the user to have any version of Microsoft

office installed on his computer and includes Excel software to be able to run FACT modules.

Steps in using FACT program

1. You have to feed in data to the modules ether directly or through other software including (PERCS) using the option EXPORT as *.xls format.
2. After having your data entry and analysis you can export data to DoPunt simulation module to test the different hypothesis.
3. The techmatics module will be used to compare your situation versus the industry standards and/or leading companies in your cluster.

Information required for FACT

Typical cost items (fixed, variable, and overhead) are necessary for the program. This information is normally available through your regular accounting system. If you are using PERCS this information could be extracted from PERCS and feed into the system. Information such as Cost of goods sold, Operating expenses, Sales, Stocks, Accounts receivable, Cash Prepaid expenses, and fixed assets are necessary for the program.

The link between PERCS and FACT

The two software will help food processors in the decision making process. As PERCS is supposed to be used as container and automation tool for company documentation, it will be the main source of information needed to do the financial and simulation analysis. Therefore both PERCS and FACT will work in harmony. Data could transfer from PERCS in suitable format (XLS, WKS, CSV, etc) and feed in FACT to start the analysis. FACT will be on top of PERCS to utilize its financial data capturing power and put it in more decision making format.

FACT Questionnaire

Item	Part of FACT toolbox	
Profitability analysis Key questions: Does the company make a profit? Yes No Is the profit reasonable in relation to the capital employed in your business? Yes No Are the profits adequate to meet the returns required by the providers of capital, for the maintenance of the business and to provide for growth? Yes No How are sales and trading profit split among the major activities? Moderate, Severe, Not sure To what extent are changes due to price change? Moderate, Severe, Not sure To what extent does volume change? Moderate, Severe, Not sure Does inter-company transfer pricing policy distort the analysis? Yes No Has the appropriate proportion of profit been taken in tax charged? Yes No Has the share of profit (or loss) attributable to minority interests in subsidiaries changed? Yes No Are profits and losses on sales of fixed assets: treated as adjustments of depreciation charges? disclosed separately "above the line" in the profit and loss account? treated as "below the line" items in the profit and loss account? transferred directly to reserves? What has been included in Extraordinary Items? ....., ..., ... Should any of these items be regarded as part of the ordinary business of the company?	Unit Two	

40

Yes No Do any items tend to recur year after year? Yes No Is it clear to you which items have been transferred directly to reserves without going through the profit and loss account? Yes No Is such treatment appropriate in each case? Yes No		
liquidity analysis Key questions: Has your business sufficient liquid resources to meet immediate demands from creditors? Yes No Has your business sufficient resources to meet the requirements of creditors due for payment in the next 12 months i.e. creditors payable within one year? Yes No Has your business sufficient resources to meet the demands of its fixed asset replacement program and its commitments to providers of long-term capital falling due for repayment in say, the next five years? Yes No	Unit Two	
Leverage analysis Key questions: What sort of capital has the company issued? Who owns the capital? What is the cost of capital in terms of interest or dividend? .....% What proportions of the capital have a financed return (gearing or leverage)? .....% Is the mix of capital optimum for the company? Yes No Is further capital available if required? Yes No Is total capital employed analyzed among different classes of business? Yes No		

If so, can return on capital be calculated for each class?

Yes No

Has issued Ordinary share capital increased during the period?

Yes No

If so, why?

Rights issue

Bonus (scrip) issue

Acquisition

Are "per share" figures calculated using appropriately weighted number of shares?

Yes No

Are prior years' figures comparable?

Yes No

What individual items have caused significant movements on Reserves?

Do any of them really belong in the profit and loss account?

Is any long term debt convertible into ordinary shares? On what terms?

Calculate appropriate measures on "fully diluted basis
Is any long term debt repayable within a short period?

Yes No

If so, should it be treated as a current liability?

Yes No

Are there significant borrowings in foreign currencies?

Yes No

Are they matched by foreign assets?

Yes No

How are exchange losses and gains thereon treated?

Is there any preference capital?

Is short term borrowing included in capital employed? Should it be?

Yes No

Is the treatment of pensions appropriate? Is information revealed?

Yes No

Would capitalizing leases significantly affect your long term debt

and gearing ratios? Yes No		
Activity analysis Key questions: Does management control the costs of the business well? Yes No Which costs, if any, have changed significantly, thus reducing or improving apparent profitability? Raw materials Labor Utilities Other ..... Does management control the investment in assets well? Yes No Are fixed assets sufficient for the current level of activity? Yes No Are they replaced on a regular basis and adequately maintained? Yes No Are the stock levels adequate for the level of activity, or excessive? Yes No Are debts collected promptly? Yes No Are creditors paid within a reasonable period of time? Yes No Are surplus cash resources invested to increase overall returns? Yes No How variable are the profits before interest and tax? Yes No How many times can the interest be paid from the available profit? ....., ..., ... How many times can the existing dividend be paid from the available profit? ....., ..., ...	Unit Two	

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What is analyzed in marketing financial analysis
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Other performance measures
Budgeting and forecasting
Key terms

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Key terms

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Venture capital
Franchising
Key terms

Appendix

Unit 1 - Introduction to accounting for marketers

Unit objectives

This unit is intended to provide:

- An understanding of financial analysis in marketing
- An explanation of the various activities associated with marketing financial analysis
- A brief introduction to the various financial analysis methods.

Whilst it is not necessary to be a qualified accountant or bookkeeper, a basic understanding of what is involved in financial analysis is essential for anyone in marketing. It is too enticing, and often too easy, to use "blue skies" thinking in planning marketing activities. It is even easier to spend money without fully realizing the return one is getting for it. It is proven, therefore, on marketers, to be more disciplined and analytical in the way they go about planning, executing and evaluating marketing plans and strategy. One way of introducing more discipline into the process is by having a basic understanding of the financial implications of decision making, and how financial measures can be used to monitor and control marketing operations. The purpose of this text is to provide exactly that, and the first unit deals basically with an introduction to the activities involved in financial analysis.

Structure of the unit

The unit introduces the way in which financial analysis can be used in marketing, and gives a brief overview of the areas in marketing where a knowledge of finance can be very useful, particularly in helping marketers gauge how well strategy is working, in evaluating marketing research alternatives, developing future plans and in marketing control.

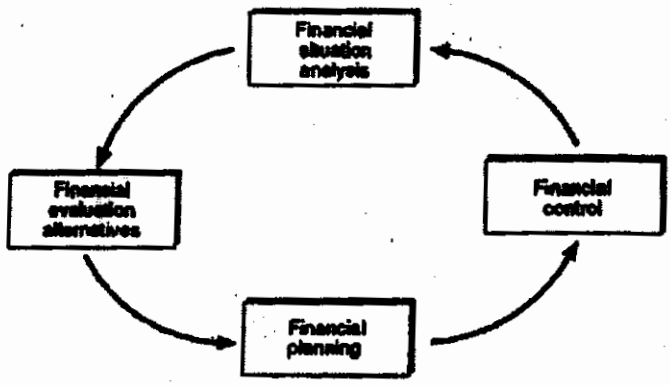
The marketing financial analysis circle

Financial analysis can be used to serve many purposes in an organization but in the area of marketing it has four main functions:

a) to gauge how well marketing strategy is working (situation analysis)
b) to evaluate marketing decision alternatives
c) to develop plans for the future
d) to control activities on a short term or-day to-day basis.

In effect these four functions comprise what can be called the "Marketing Financial Analysis Circle" (see figure 1.1)

Figure 1.1 The marketing-financial analysis circle



Activities associated with marketing financial analysis functions

For each of the four functional areas where financial analysis is useful in marketing, there are a number of associated activities:

a) Financial situation analysis (how well marketing strategy is working)
This involves the study of:

- the study of trends
- comparative analysis
- assessment of present financial strengths and limitations for the whole business, brand or component of the business, e.g. transportation.

b) Financial evaluation of alternatives

This involves the study of a number of factors like the market place, competitors etc., and is used for decisions whether to:

- introduce new products/delete mature products
- expand the sales force or do more advertising
- delete a market operation e.g. close a Dairy Board depot or increase the sales fleet
- move into a new market or markets
- build a new grain depot or silo.

c) Financial planning (projections concerning activities which marketing management has decided to undertake)

Financial planning is used for a number of activities like:

- the introduction of a new range of products
- the forecasting of sales and costs
- market liberalization.

d) Financial control (actual compared to planned results)

This activity is mainly centered around keeping plans on course.

Methods involved in marketing financial analysis

There are a variety of methods used in each of the four functional areas. Some of these include the following:

a) Financial situation analysis

- Ratio analysis
- Profit and contribution analysis
- Sales and cost analysis.

b) Financial evaluation of alternatives

- Sales and costs analysis
- Break even analysis
- Profit contribution, cash flow analysis, profit projections
- Return on investment
- Return on capital employed
- Sustainable growth rates.

c) Financial planning

- Sales and costs forecasts
- Budgets
- Proforma income statements.

d) Financial control

- Sales and costs forecasts
- Actual results compared to budgets (analysis of variance)
- Profit performance.

What is analyzed in marketing financial analysis

Two factors influence the choice of unit of analysis:

a) the purpose of the analysis
b) the cost of the information needed to perform the analysis.

Several possible units can be used in marketing financial analysis and cost or sales data can be used. These units are listed in table 1.1. which is by no means exhaustive. Units can be chosen which suit the particular situation or organisation.

Table 1.1 - Alternative units in financial analysis

Market	Product/service	Organization
Total Market	Industry	Company
Market segment (s)	Product mix	Segment/Division/Unit
Geographical areas	Product line	Marketing department
- demographics	Specific product	Sales unit
- product	- brand	Regions
- characteristics	- model	District/Branch
	- size	Office/Store
	- shape	Sales person

Basic financial analysis methods

These will be expanded on in later units, so this section serves as an introduction only.

Use of ratios

Ratios can be used to judge the organization's "liquidity", i.e. can it pay its bills, its "leverage", i.e. how is it financed and its "activities", i.e. the productivity and efficiency of the organization. Taking liquidity analysis only, this has a bearing on new product planning, marketing budgets and the marketing decisions. Liquidity analysis is drawn from the balance sheet, e.g.:

	$		$
Cash	250	Current	120
Accounts receivable	300	Short term debt	100
Stock	200	Long term debt	1,500
Total current assets	750	Total liabilities	1,720
Property and equipment	2,000	Net worth	1,430
Other assets	400		
Total assets	3,150	Total liabilities and net worth	3,150

Current and quick ratios

These are used to judge a firm's short term capacity to meet its financial responsibilities.

(i) Current ratio

$$\frac{\textit{Current asset}}{\textit{Current liabilities}} \text{ (Should be greater than 1)}$$

750/220=3.41

ii) Quick ratio

$$\frac{\textit{Current asset}}{\textit{Current liabilities}} \text{ (minus stock)}$$

550/220=2.50

Debt ratios

These are used to measure long term liquidity

$$\frac{\textit{Total debts}}{\textit{Net worth}}$$ (Current Liability+Short Term Debt+Long Term debt) should be >1

1,720/1,430=1.21

$$\frac{\textit{Long term debt}}{\textit{Total capitalization}}$$ (Long Term Debt + Net Worth)

1,500/2,930=0.51

This ratio shows the extent of leverage (debt) in total capitalization.

Profit analysis

Breakeven analysis is a method used to estimate the number of units (volume) or sales value required to make neither profit nor losses. In other words, it is the point where costs of production and sales volume are equal.

Sales and cost information are used to calculate the breakeven point. Without getting into the argument as to what constitutes fixed or variable costs, fixed costs are defined as those which do not vary with output e.g. rent, rates, whereas variable costs do vary with increased or decreased output, e.g. labour, materials. Breakeven assumes fixed costs are constant, variable costs vary at a constant rate and there is only one selling price. However, with a higher or lower price, the breakeven point will be lower or higher respectively. Breakeven is calculated by the formula:

$$\text{BREAKEVEN} = \frac{\textit{FIXED COSTS}}{\textit{PRICE / UNIT} - \textit{VARIABLE COST / UNIT}}$$

By rearranging the formula breakeven costs or sales can be calculated. Note that profit level intentions should be added to the fixed costs, as this is a "charge" to the company. Also, if one wishes to recover all new investment (value) *immediately* it should be added to fixed cost.

Breakeven can be calculated by the formula or by graphical methods. Figure 1.2 shows an example of both.

Figure 1.2 Formula and graphical solution for breakeven analysis

I) Formula

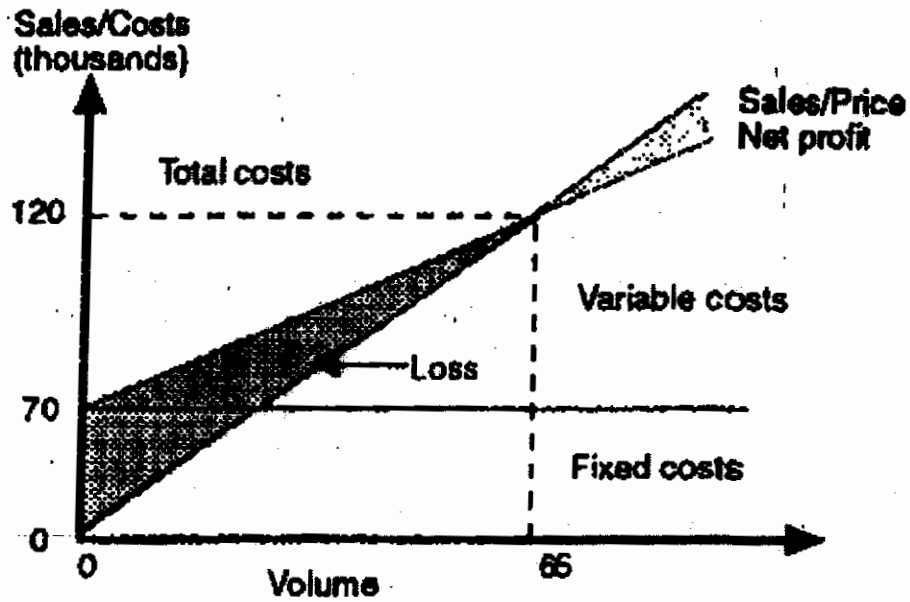
Price/Unit =	$ 1.846
Variable cost/Unit =	$ 0.767
Fixed costs =	$70.000

$$Breakeven = \frac{Fixed\ costs}{Price\ per\ unit - Variable\ cost\ per\ unit}$$

$$= \frac{70{,}000}{1.846 - 0.767}$$

= 65, 000 units (volume) or $120, 000

Figure 1.2 Graphical solution



Contribution analysis: When performance of products, market segments and other marketing units is being analyzed, an examination of the profit contribution generated by a unit is often very useful to management.

CONTRIBUTION = *SALES (REVENUE) - VARIABLE COSTS*

So, contribution represents the amount of money available to cover fixed costs and the excess available is net income.

For example, suppose a product is generating a positive contribution margin. If the product is dropped, the remaining products would have to cover fixed costs that are not directly traceable to it.

In the example below if X was eliminated, $50, 000 of product net income would be lost. If the product was retained the $50, 000 could be used to contribute to other fixed costs and/or net income (see figure 1.3.).

Gross and net profit margins: Contribution margin is useful for examining the financial performance of products, market segments and other marketing, planning and control units. However, marketing executives should be familiar with the calculation of gross and net profit margins, which is useful to gauge company and business unit financial performance and to budget for future operations. The profit

and loss statement is useful for reporting performance to stockholders and to compute taxes. Figure 1.4 gives an example

Figure 1.3 Illustrative contribution margin for product X (000's)

		$
SALES		500
LESS:	Variable manufacturing costs	200
	Other variable costs traceable to product X	100
EQUALS:	Contribution margin	200
LESS:	Fixed cost traceable to product X	150
EQUALS:	Product's net income	50

Note: *Unit 5 provides further explanations of a) and b).*

Figure 1.4 Illustrative profit and loss statement

		$
SALES REVENUE		1,200,000
LESS	Cost of goods sold	800,000
EQUALS:	Gross profit margin	400,000
LESS:	Selling and admin. expenses	200,000
EQUALS:	Net profit before tax	200,000
LESS:	Tax	80,000
EQUALS:	Net profit	120,000

Consider the following sample data taken from *Rowe, Mason, Dickel and Westcott (1987)*

	$
Cost of goods sold	12,000
Operating expenses	3,600
Sales	16,500
Stocks	3,200
Accounts receivable	3,750
Cash	400
Prepaid expenses	50
Fixed assets	1,200

Financial analysis models

Many models, often computerized, have been developed to aid marketers see the effects on the "bottom line" of a change in an organization. One such programme is the Dupont Analysis The model allows executives to input data into blank boxes and by manipulating any figure find the resulting outcome. One of the advantages of computer based models is that one can work "backward" or "forward" through the model, setting desired levels of cost or outcomes and calculating the results.

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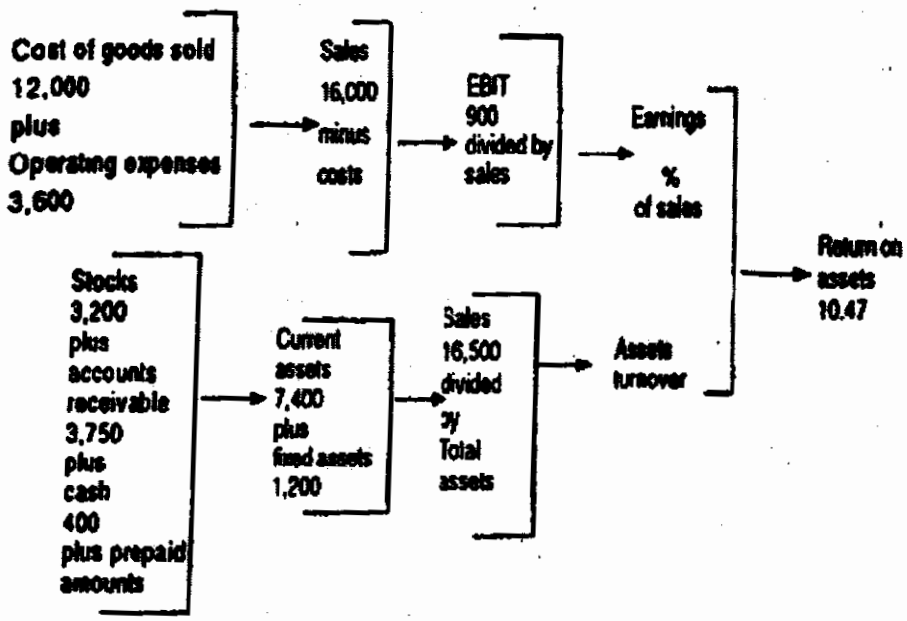
Figure 1.5 Sample printout of the Dupont analysis



Other performance measures

Various other performance measures can be used; these include productivity measures, which, say, for a supermarket would be:

$$\frac{\text{Sales}}{\text{Sq metre of space}}$$

Other measures include inventory turnover:

$$\frac{\text{Net Sales}}{\text{Inventory}}$$

Budgeting and forecasting

These two activities are essential to marketing planning and are often done via pro forma statements.

a) Marketing budgets

Field sales expense, advertising expense, product development expense, market research expense, distribution expense (trade and administration), promotion expense (trade, consumer).

b) Pro forma financial statement

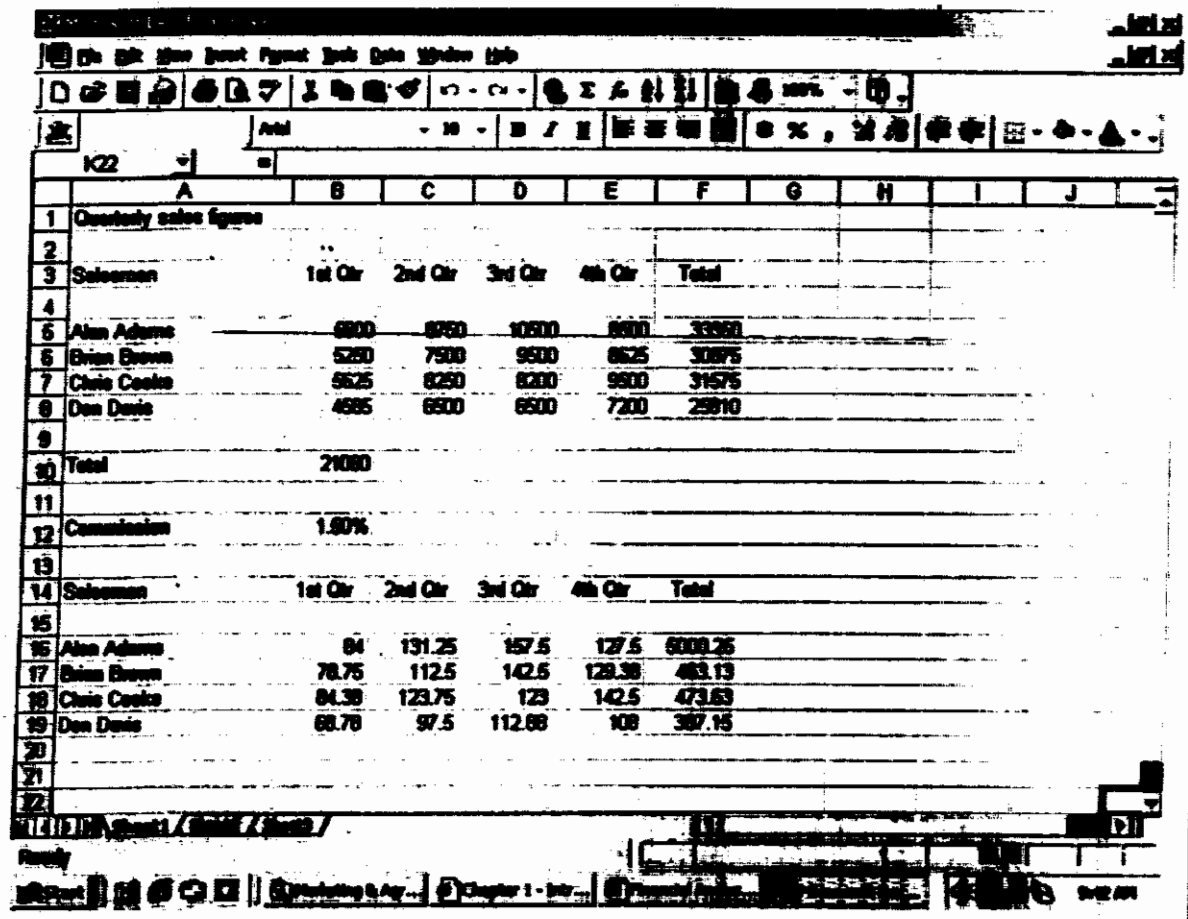
Annual profit and loss statement, next year pro forma/quarter, current year budget/quarter, last year actual/quarter, annual revision of 5 year pro forma profit and loss statement (expense detail for broad categories).

N.B. In all figures watch for inflation and information gaps (use approximation).

Spreadsheets

Spreadsheets are often used in budgeting and forecasting exercises. Spreadsheets use the memory of a computer as if it were a large piece of paper divided up into a matrix of cells. Into these cells may be entered numbers, text and formulae. The power of these systems is that the data held in any one cell can be made dependent on that held in other cells and changing a value in one cell can set (if wanted) a chain reaction of changes through other related cells. This means that a model can be built in which the effect of changing key parameters may be observed. A term often used to describe spreadsheets is "what if software". It can be used, for example, to evaluate the effect of changing the sales commission rate. Simply entering a new value in the commission rate cell will lead to the automatic re-calculation of all dependent cells. Figure 1.6 shows an example of a spreadsheet used in accounting.

Figure 1.6 Sample spreadsheet



	A	B	C	D	E	F
1	Quarterly sales figures					
2						
3	Salesman	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
4						
5	Alan Adams	6800	8750	10500	8000	33950
6	Brian Brown	5250	7500	9500	8625	30875
7	Chris Cooke	5625	8250	8200	9500	31575
8	Dan Davis	4585	6500	6500	7200	25810
9						
10	Total	21060				
11						
12	Commission	1.50%				
13						
14	Salesman	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
15						
16	Alan Adams	84	131.25	157.5	127.5	500.25
17	Brian Brown	78.75	112.5	142.5	129.38	463.13
18	Chris Cooke	84.38	123.75	123	142.5	473.63
19	Dan Davis	68.78	97.5	112.88	108	387.15
20						
21						
22						

Note: The formatting of the 'cells' to display numerical fields to two decimal places/values for commission in the lower half are found by multiplying the sales figures by 1.5%; totals are stored as the SUM (column or row); the borders showing column letters and row numbers may be omitted.

Spreadsheets are powerful personal decision support tools. In addition, programming facilities such as IF...THEN...ELSE greatly extend the control that may be built into the model.

Unit 2 - Financial, managerial accounting and reporting

Unit objectives

This unit is intended to provide:

- An introduction to the basic principles of the accounting equation
- An introduction to, and the construction of, manufacturing, trading and profit and loss accounts and their use
- An understanding of the principles and construction of a balance sheet and its interpretation
- A detailed explanation of the interpretation of company accounts using ratio analyses and the uses of these.

The two principle statements which form a set of accounts are:-

a) *The profit and loss account* defined as a summary of a business's transactions for a given period.
b) *The balance sheet* defined as a statement of the financial position of the business at a given date (usually the end of that period).

Other less important statements are the *manufacturing account* and the *trading account*. It is absolutely essential to any marketer to understand what the profit and loss statement and balance sheet mean. Both documents are vital, not only to show the corporate health of the organization, but also as an indication to various shareholders of how well or badly the organization is performing, as proof to potential investors or lenders for the raising of capital and as a statutory record for taxation and other purposes.

Structure of the unit

This unit is structured in a logical way, building up from the basic tenets of financial analysis - the dual effect and the accounting equation. From this, the unit looks at the construction of manufacturing, trading and profit and loss accounts and the drawing up of a balance sheet. Ratio analysis is a particularly powerful technique aimed at helping marketers to compare sets of figures over time and between companies. This is dealt with in considerable detail.

The basic principles

All aspects of accounts are governed by these two principles.

a) **First principle: Dual effect**

Every transaction has two effects, not one, e.g. if a Cerial Marketing Board (C.M.B.) purchases grain it has:

- more stock
- less cash.

If the Nile Company of Egypt sells frozen artichokes to a retailer, it has:

- less stock
- an amount owed by the customer if he does not pay immediately.

b) Second principle: The accounting equation

The second principle stems from the first. Every transaction has two effects; these two are equal and balance each other. Thus, at any given moment the net assets of a business are equal to the funds which the owner or proprietor has invested in the business.

Net Assets = Proprietor's funds

is the ultimate accounting equation. An explanation of the terms is as follows;

- *Net assets* are defined as a business's total assets less total liabilities.
- An *asset* is defined as something owned by a business, available for use in the business.
- A *liability* is defined as the amount owed by the business, i.e. an obligation to pay money at a future date.
- *Proprietor's funds* represents the total amount which the business owes to its owner or proprietor. This consists of:

Capital: (amount proprietor invested in the business)
plus
Profits: (funds generated by the business)
or minus
Losses: (funds lost by the business) *minus*
Drawings: (amounts taken out of the business).

Use of the accounting equation to find profit

We normally arrive at a business's profit or loss by means of a profit and loss account, but where information about income and expenditure is lacking, the accounting equation can be a useful way of finding profit. If:

Net assets = Proprietor's funds

then an *increase in net assets = an increase in a proprietor's funds.*

Considering what causes an increase in the proprietor's funds, we can say that INCREASE IN NET ASSETS (from the beginning of a period to the end) is equal to:

New capital introduced + Profit - Drawings

during the same period. If three of these four amounts are known, the fourth can be calculated.

Manufacturing account

There are many firms, whether parastatal, sole trader, partnership or limited company, which manufacture the final product to be sold from raw materials, e.g. a fertilizer company uses phosphates, ammonia and so on to produce finished fertilizer pellets.

In this instance, a manufacturing account is required in order to arrive at the final cost of manufacture. The manufacturing organization will still need a trading and profit and loss account. The only major difference is that, in the trading account, the entry for purchases is replaced by the cost of manufacture. The cost of manufacture is calculated using a manufacturing account. Two important factors need to be taken into account:

a) **Different types of cost**

The costs needed to prepare a manufacturing account can be broken down into two main categories known as direct and indirect costs.

The main or direct costs are those of raw materials and labor, which together are known as the prime cost, although any expense which can be traced directly to any unit of production is also a direct cost. The indirect costs are those associated with production but cannot be traced directly to a particular production unit. These costs will include the general factory overheads such as light, heat and power, rent, rates, insurance, depreciation of production machinery, etc. Certain labour costs, such as supervision by foremen or factory managers, will also be indirect costs because they are not directly traceable to a production unit but are absorbed as a general overhead.

b) **The effect of stocks**

One complication in constructing the manufacturing account is to remember that there may be opening and closing stocks of raw materials and opening and closing values to attach to partly completed items (work in progress).

Figure 2.1 Pro forma manufacturing account

YEAR ENDED 2001			
Opening stock of raw materials			Production cost o completed goods carrie down to trading account
Purchases		:	
		x	xx
Less closing stock of raw materials		:	
Cost of raw materials consumed		:	
Direct manufacturing wages		:	
Prime cost		x	
Factory overheads:			
Rent and rates,	x		
light, heat and power	x		
Indirect wages	x		
Depreciation of			
Prod. machinery	x		
		x	
		x	
Opening work in progress		:	
		xx	
Less closing work in progress		:	
		xx	xx

Now attempt exercise 2.1 and 2.2.

These adjustments can be seen in the pro forma manufacturing account, which follows. (See figure 2.1.)

Exercise 2.1 A simple manufacturing account

The following are details of production costs of *Aroma Pvt Ltd* for the year ended 31 December 2001.

	:
1 January 2001, stock of raw materials	1,30
31 December 19X5, stock of raw materials	1,80
Purchase of raw materials	10,00
Manufacturing (direct) wages	17,00
Royalties	60
Indirect wages	9,00
Rent of factory (excluding administration and selling and distribution departments)	2,08
Factory rates	64
General indirect expenses	68
Depreciation of work machinery	1,05

Prepare a manufacturing account for the year ended 31 December 19X5.

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Exercise 2.2 A manufacturing account with an adjustment of work-in-progress.

January 2001 stock of raw materials	1,50
31 December 2001 stock of raw materials	2,75
1 January 2002 work in progress	86
31 December 2002 work in progress	94
For the year ended 31 December 19X4	
Wages: direct	6,45
indirect	4,06
Raw materials purchased	15,70
Power fuel	1,02
Direct expenses	66
Carriage inwards on raw materials	1,05
Depreciation of factory machinery	72
Insurance of factory buildings	34
General factory expenses	70

Trading account

The purpose of the trading account is to show the gross profit on the sale of goods. Gross profit is the difference between the sale proceeds of goods and what those goods cost the seller to buy, or cost of sales. The cost of sales for this purpose includes the amount which has been debited for them to the purchases account plus the cost of getting them to the place of sale, which is usually the seller's premises, i.e. the carriage inwards of those goods.

Preparing a trading account

The trading account is calculated by using a sequence of steps. It is essential that these steps are carried out in the order indicated.

a) The first step is to transfer the balance on the sales account to the trading account:

Dr: Sales A/c	Cr: Trading A/c.

b) Next, debit the trading account with the cost of goods sold, starting with the opening stock:

Dr: Trading A/c	Cr: Stock A/c.

The opening stock is obviously the same as the closing stock of the previous period; in the first year of trading, of course, there will be no opening stock.

c) The balance on the purchases account is then transferred to the trading account and added to the opening stock figure:

Dr: Trading A/c	Cr: Purchases A/c.

d) Transfer any balance on the carriage inwards account to the trading account:

Dr: Trading A/c	Cr: Carriage Inwards A/c.

Add the carriage to the total arrived at in c) above. This gives the total cost of goods available for sale.

e) Deduct the value of closing stock from the cost of goods available for sale. Any item deducted from the debit side of an account is, in effect, credited to the account. Deducting closing stock from the debit side of the trading account is therefore crediting it to that account. The corresponding double entry will therefore be to the debit of stock account:

Dr: Stock A/c	Cr: Trading A/c

(by deduction from the debit side).

We have now arrived at the cost of sales.

f) The balance on the trading account will be the difference between sales and cost of sales, i.e. gross profit, which is carried down to the profit and loss account.

Point to Note:

The debit to stock account for closing stock is the value of the current asset of closing stock which will be included in the balance sheet, as we shall see later. When the opening stock is credited to the stock account in the next period, it will balance off the stock account.

Net sales (turnover) and net purchases: Goods which have been returned by customers are represented by a debit balance on the sales return account. This must be transferred to the trading account, otherwise the sales and gross profit in that account will both be overstated.

Following the same reasoning that allows us to deduct closing stock on the debit side of the trading account, we may deduct the debit balance on the sales returns account from the sales credited in the trading account. In this way, we show the net sales for the year. Net sales are known as turnover. Similarly, we show the credit balance on the purchases returns account as a deduction from purchases in the trading account to show the net cost of purchases. Goods which have been returned to suppliers must not be included in the cost of sales.

Point to Note:

The order of items is most important. Sales returns must be deducted from sales; purchases returns must be deducted from purchases; carriage inwards, if any, must be debited in the account before closing stock is deducted. Figure 2.2 shows a pro forma trading account.

Figure 2.2 Pro forma trading account

Opening stock of finished goods		:Sales	xx
Production cost of completed goods b/d (from manufacturing account)	:		
Closing stock of finished goods	x		
Cost of sales	x		
Gross profit c/d	x		
	x		xx
		Gross profit B/d	xx

N.B. A trading account is prepared very much like a manufacturing account but substituting the production cost of completed goods for the usual purchasing figure (see exercise 2.3: Preparation of trading account)

Appendix I shows a sample trading account for The Nile Marketing Board, Zimbabwe.

Now attempt exercise 2.3.

Exercise 2.3 Preparation of trading account

Prepare a trading account from the following balances included in the trial balance of *K. Smith* at 31 December 2001.

	Dr	Cr
	$	$
Sales		25,00
Purchases	16,00	
Sales returns	3,00	
Purchases returns		2,50
Stock at 1.1.19X8	3,00	
Carriage inwards	1,00	
Stock at 31/12/19X8	5,00	

The profit and loss account

Introduction: The remaining nominal accounts in the ledger represent non-trading income, gains and profits of the business in the case of credit balances, e.g. rent, discount and interest receivable. Debit balances represent expenses and losses of the business and are known as overheads, e.g. salaries and wages, rent and rates payable, lighting, heating, cleaning and sundry office expenses. These must now be transferred to the profit and loss account so that we can calculate the net profit of the business from all its activities.

The profit and loss (income) statement presents a summary of the revenues and costs for an organisation over a specific period of time. Such a statement is generally developed on a monthly, quarterly and yearly basis. The profit and loss statement enables a marketer to examine overall and specific revenues and costs over similar time periods and analyses the organisation's profitability. Monthly and quarterly statements enable the firm to monitor progress towards goals and revise performance standards if necessary.

When examining a profit and loss statement, it is important to recognise one difference between manufacturers and retailers. For manufacturers the cost of goods sold involves the cost of manufacturing products (raw materials, labour and overheads). For retailers, the cost of goods sold involves the cost of merchandise purchased for resale (purchase price plus freight charges).

The balance sheet shows that the profit for an accounting period increases proprietor's funds. The trading and profit and loss account shows, in detail, how that profit or loss has arisen. The profit and loss statement consists of these major components:-

- **Gross sales** - the total resources generated by the firm's products and services
- **Net sales** - the revenues received by the firm after subtracting returns and discounts (such as trade, quantity, cash)
- **Cost of goods sold** - the cost of merchandise sold by the manufacturer or retailer.
- **Gross margin** (profit) - the difference between sales and the cost of goods sold: consists of operating expenses plus net profits
- **Operating expenses** - the costs of running a business, including marketing
- **Net profit before taxes** - the profit earned after all costs have been deducted.

Figure 2.3 shows a pro forma trading and profit and loss account.

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Figure 2.3 Trading, profit and loss a/c for the year ended 31 Dec 19X0

	$	$	$
Sales			x
Less: cost of goods sold stock, at a cost on 1 January ('opening stock')		x	
Add: purchases of goods		x	
Less: stock, at a cost on 31 Dec ('closing stock')		(x)	
			x
Gross profit			xx
Sundry income:			
Discounts received	x		
Commission received	x		
Rent received	x		
	x		
	xx		
Less: administration expenses			
Rent	x		
Rates	x		
Lighting and heating	x		
Telephone	x		
Postage	x		
Insurance	x		
Stationery	x		
Office salaries	x		
Depreciation	x		
Accounting and audit fees	x		
Bank charges and interest	x		
Doubtful debts	x		
Distribution costs:		x	
Delivery costs	x		
Van running expenses	x		
Advertising	x		
Discount allowed	x		
		x	
			(x)
NET PROFIT			xxx

Explanations

It is essential that the difference between a trading and profit and loss account is clearly understood. The following provides an explanation.

- The trading account shows the gross profit generated by the business. This is done by comparing sales to the costs which generated those sales. A retailer, for example, will purchase various items from various suppliers, and add a profit margin. This will give him the selling price of the goods and this, minus the cost of goods sold, will be the gross profit.

Cost of goods sold is calculated by:

Opening Stock + Opening Purchases (for year or period) **- Closing Stock** (cost of goods unsold at the end of the same period).

This gives the cost of goods which were sold. Sales and cost of goods sold should relate to the same number of units.

- The profit and loss account shows items of income or expenditure which although earned or expended by the business are incidental to it and not part of the actual manufacturing, buying or selling of goods.

- In a complicated manufacturing industry and in service industries, different definitions of "goods", "net profit" and "cost of sales" may exist.

Capital and revenue expenditure

Only revenue expenditure (e.g. heating bills) is charged to the profit and loss account; capital expenditure (e.g. the purchase of a new plant) is not.

a) Revenue expenditure is expended on:

- acquiring assets for conversion into cash (resale goods)
- manufacturing, selling and distribution of goods and day-to-day administration of the business
- maintenance of fixed assets (e.g. repairs);

It is well to note that "cash" need not be paid or received to be accounted for. The amount of revenue expenditure charged against the profits for the year or period is the amount incurred whether cash has or has not been paid. This applies with sales as well. Even if cash for sales has not been received in the year or period under review, sales will be included in the trading account. This is the "accruals" concept.

b) Capital expenditure is expended on:

- start up of the business
- acquisition of fixed assets (not for resale)
- alterations or improvements of assets to improve their revenue earning capacity.

Capital expenditure is not charged to the profit and loss account as the benefits are spread over a considerable period of time.

Now attempt exercise 2.4.

Exercise 2.4 Trading and profit and loss account

Nigel Munyati and his friends opened a small scale horticultural "co-operative" in Concession, growing and retailing. The business started on 1 August 19X6.

The following is a summary of the transactions for the first year:

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	$
Capital introduced on 1 August 19X6	
cash	20,000
stocks	12,000
Cash paid to suppliers	28,000
Amounts owed to suppliers at 3 July 19X7	14,000
Received from customers in respect of sales	50,000
Amounts owed by customers at 31 July 19X7	10,000
Stock of goods at the end of the year	11,000
Rent	2,500
Rates	800
Water and light	500
Salesmen's salaries	4,000
Salesmen's commissions, not yet paid	600
Bank charges	120
Office wages	400
Telephone and postal charges	150
Advertising	1,000
Drawings during the year	4,000

You are required to prepare a trading and profit and loss account for the year ended 31 July 2001.

The balance sheet

Introduction: The balance sheet is a statement of the financial position of a business at a given date. It is, therefore, only a "snapshot" in time. When comparing business performance, therefore, a number of years and time periods may be more suitable. The balance sheet is the accounting equation but set out in a vertical form in order to be more readily, understood i.e. the accounting equation.

Assets - Liabilities = Capital + Profit - Drawings

expressed in the form of a balance sheet is as follows:-

	$
Assets	X
less: liabilities	X
Net assets	X
Representing:	
Capital	X
Profit for the year	X
	X
less: drawings	X
Proprietor's funds	X

This is a simplified form; in reality the assets and liabilities will be further sub-divided and analyzed to give more detailed information. Figure 2.4 shows a pro forma balance sheet.

Figure 2.4 Pro forma balance sheet

Balance sheet at 31 December 19X0

		C Cost	D Depreciation	Net value (C-D)
		$	$	$
A)	Fixed assets			
	Freehold factory	x	x	x
	Machinery	x	x	x
	Motor vehicles	x	x	x
		x	x	x
B)	Current assets			
	Stocks and work in progress		x	
	Debtors and prepayments		x	
	Cash at bank		x	
	Cash in hand		x	
			x	
C)	Current liabilities			
	Trade creditors	(x)		
	Accrued charges	(x)		
			(x)	
				x
D)	Net current assets			xx
E)	15% loan			(x)
				xxx
F)	Representing:			
	Capital at 1 January			x
	Profit for the year			x
				x
	Less: drawings			(x)
G)	Proprietor's fund			xxx

Explanations

As with trading and profit and loss accounts, the balance sheet has its own nomenclature. These are fixed accounts, current accounts, current liabilities and funds:

A) **Fixed assets:** assets acquired for use within the business with a view to earning profits, but not for resale. They are normally valued at cost less accumulated depreciation.

B) **Current assets:** assets acquired for conversion into cash in the ordinary course of business; they should not be valued at a figure greater than their net realisable value.

C) **Current liabilities:** amounts owed by the business, payable within one year.

D) **Net current assets:** funds of the business available for day-to-day transactions. This can also be called working capital.

E) **Loans:** funds provided for the business on a medium to long term basis by an individual or organisation other than the proprietor.

F) This total is the total of the business's net assets.

G) This total is the total of proprietor's funds, i.e. the extent of his investment in the business. Within these main headings the following items should be noted.

- **Fixed assets**

Depreciation is an amount charged in the accounts to write off the cost of an asset over its useful life.

- **Current assets**

Debtors are people who owe amounts to the business.

Prepayments are items paid before the balance sheet date but relating to a subsequent period.

- **Current liabilities**

Trade creditors are those suppliers to whom the business owes money.

Accrued charges are amounts owed by the business, but not yet paid, for other expenses at the date of the balance sheet.

Note:
Working capital. This is a term given to net current assets, or total current assets less total current liabilities, e.g.

	$
Current assets	7,600
Less current liabilities	1.800
Working capital	5,800

Working capital is important because it is the fund of ready resources that a business has in excess of the amount required to pay its current liabilities as they fall due. Working capital is important; lack of it leads to business failure.

Appendix i shows a sample balance sheet and a full set of accounts for The Nile Marketing Board of Zimbabwe.

Now attempt exercise 2.5.

Exercise 2.5 Balance sheet

Prepare a balance sheet for year ended 31 July 19X7 for *Nigel Munyati's* horticultural co-operative.

	$
Capital introduced on 1 August 19X6	
- cash	20,00
- stocks	12,00
Cash paid to supplier	28,00
Amounts owed to suppliers at 31 July 19X7	14,00
Received from customers in respect of sales	50,00
Amounts owed by customers at 31 July 19X7	10,00
Stock of goods at the end of the year	11,00
Rent	2,50
Rates	80
Water and lights	50
Salesmen's salaries	4,00
Salesmen's commissions, not yet paid	60
Bank charges	12
Office wages	40
Telephone and postal charges	15
Advertising	1,00
Drawings during the year	4,00

Stocks and work-in-progress

Accounting for stocks: Almost every company carries stocks of some sort. In an agricultural business, these may be fertilisers, chemicals, produce, etc. Accounting for stocks presents a problem, because stocks in hand at the end of the financial year are regarded as current assets, whereas stocks used during the year form part of the company's costs. Hence, stocks (assets) appear in the balance sheet, and stocks (used) must be accounted for in the trading and profit and loss account.

Valuation of stocks: Valuing closing stocks has always been a problem and a source of disagreement. There are many methods of establishing the value of stocks. Three common alternatives are average cost, first in first out (Fifo) and last in first out (Lifo).

i) Average cost

Cost is calculated by taking the average price computed by dividing the total costs of production by the total number of units produced. This average price may be derived by means of a continuous update, a periodic calculation, or a moving period calculation. This method is often used to calculate the cost of low value items, e.g. in the manufacture of nails.

ii) First in first out (Fifo)

The calculation of the cost of stocks and work-in-progress is on the basis that the stocks in hand at the year end represent the latest purchases or production, as the items going into stock at the earliest date are assumed to leave first, e.g. a greengrocer will obviously wish to sell the oldest stocks first.

iii) Last in first out (Lifo)

The calculation of the cost of stocks and work-in-progress is on the basis that the stocks in hand represent the earliest purchases or production, as it is assumed that the latest stocks into store are the first to be taken out, e.g. a 'bin' system, where purchases are added to the top and sales will be removed from the top.

Consider the following example comparing the effect of valuing stock of 240 units:

FIFO trading account

			$	$
Sales (March)		$360 @ $3.00		1,080
Purchases	(01 February)	$200 @ $2.00		
	(10 February)	$200 @ $2.25		
	(15 February)	$200 @ $2.50	1,350	
Less:	Closing stock	(bought 15 Feb)		
	$200 @ $2.00	(bought 10 Feb)	590	
	$ 40 @ $2.25			760
				320

LIFO trading account

			$	$
Sales (March)		$360 @ $3.00		1,080
Purchases	(01 February)	$200 @ $2.00		
	(10 February)	$200 @ $2.25		
	(15 February)	$200 @ $2.50	1,350	
Less:	Closing stock	(bought 15 Feb)		
	$200 @ $2.00	(bought 10 Feb)	490	
	$ 40 @ $2.25			860
				220

Note: In both cases, there are 240 items in stock. Valuing stocks using the latest prices, the gross profit is $320, whereas using the earliest prices the figure is $220.

The lower of cost and net realizable value: The most fundamental accounting concept with regards to the valuation of stocks and work-in-progress is that they need to be stated at cost, or if lower, at net realisable value. Net realisable value is the amount at which it is expected that items of stock and work-in-progress could be sold after allowing for the costs of completion and disposal. If net realisable value is higher than cost, then cost is taken, as valuing stocks at a higher value would not be prudent, i.e. profit would have been taken into account before it is actually earned. It is important to check against the net realisable value to ensure that the current asset, stock, is not stated at a figure above that for which it could be realised at the balance sheet date.

Stock provision: If it is decided to reduce the value of certain items of stock from cost to net realisable value, e.g. obsolete, slow moving or unsaleable stocks, this is done by means of a provision.

Stock is reduced in value, and a charge is made against profits. The full amount is deducted from stock in the balance sheet, but only the decrease between the beginning and end of a period is shown in that period's trading and profit and loss account.

Now attempt exercise 2.6.

Exercise 2.6 Valuation of stocks

Kubi Dwili began business as a small scale peanut importer in July 19X6. Purchases of peanuts were made as follows:

		Price per ton	
		$	$
19X6	Tons		
01 July	60	20.00	1,200
15 August	40	24.00	960
30 September	45	26.00	1,170
12 October	30	35.00	1,050
29 November	25	38.00	950
11 December	30	50.00	1,500
	230		6,830

On 10 October, 100 tons of peanuts were sold and on 31 December 70 tons were sold. The total proceeds of the sale were $8,500.

You are required to calculate the value of closing stock and to prepare the trading account on the following bases:

a) first in first out
b) last in first out
c) average cost.

The interpretation of company accounts-ratio analysis

Why ratios: Ratios are the means of presenting information, in the form of a ratio or percentage, which enables a comparison to be made between one significant figure and another. Often the same ratios of like firms are used to compare the performance of one firm with another. A "one off" ratio is often useless - trends need to be established by company ratios over a number of years.

- The great volume of statistics made available in the annual accounts of companies must be simplified in some way. Present and potential investors can therefore quickly assess whether the company is a good investment or not.

- Financial ratio analysis is helpful in assessing an organisation's internal strengths and weaknesses. Potential suppliers will, for example, want to judge credit worthiness.

- Ratios by themselves provide no information; they simply indicate by exceptions where further study may improve company performance. Management can compare current performance with previous periods and competing companies.

Which areas are used for analysis?

Four key areas are generally used for analysis:

- profitability
- liquidity
- leverage (capital structure)
- activity or management effectiveness (efficiency).

a) **Profitability**

In most organizations profits are limited by the cost of production and by the marketability of the product. Therefore, "profit maximization" entails the most efficient allocation of resources by management, and "profitability ratios" when compared to others in the industry will indicate how well management has performed this task.

Key questions to be identified in profitability analysis include:

- Does the company make a profit?
- Is the profit reasonable in relation to the capital employed in the business?
- Are the profits adequate to meet the returns required by the providers of capital, for the maintenance of the business and to provide for growth?
- How are sales and trading profit split among the major activities?
- To what extent are changes due to price change?
- To what extent does volume change?
- Does inter-company transfer pricing policy distort the analysis?
- Has the appropriate proportion of profit been taken in tax charged?
- What deferred taxation policy is being followed?
- Has the share of profit (or loss) attributable to minority interests in subsidiaries changed? If so, is it clear why?
- Are profits and losses on sales of fixed assets:
  - -treated as adjustments of depreciation charges?
  - -disclosed separately "above the line" in the profit and loss account?
  - -treated as "below the line" items in the profit and loss account?
  - -transferred directly to reserves?
- What has been included in Extraordinary Items?
- Should any of these items be regarded as part of the ordinary business of the company?
- Do any items tend to recur year after year?
- Is it clear which items have been transferred directly to reserves without going through the profit and loss account?
- Is such treatment appropriate in each case?

b) **Liquidity**

"Liquidity measures" are based on the notion that a business cannot operate if it is unable to pay its bills. A sufficient amount of cash and other short-term assets must be available when needed. On the other hand, because most short term assets do not produce any return, a strong liquidity position will be damaging to profits. Therefore, management must try to keep the firm's liquidity as low as possible whilst ensuring that short term obligations will be met. This means that industries with stable and predictable conditions will generally require smaller current ratios than will more volatile industries.

Key questions to be identified in liquidity analysis include:

- Has the business sufficient liquid resources to meet immediate demands from creditors?
- Has the business sufficient resources to meet the requirements of creditors due for payment in the next 12 months i.e. creditors payable within one year?
- Has the business sufficient resources to meet the demands of its fixed asset replacement programme and its commitments to providers of long-term capital falling due for repayment in say, the next five years?

c) **Leverage**

"Leverage ratios" show how a company's operations are financed. Too much equity in a firm often means the management is not taking advantage of the leverage available with long-term debt. On the other hand, outside financing will become more expensive as the debt-to-equity ratio increases. Thus, the leverage of an organisation has to be considered with respect both to its profitability and the volatility of the industry.

Key questions to be identified in leverage analysis include:

- What sort of capital has the company issued?
- Who owns the capital?
- What is the cost of capital in terms of interest or dividend?
- What proportions of the capital have a financed return (gearing or leverage)?
- Is the mix of capital optimum for the company?
- Is further capital available if required?
- Is total capital employed analysed among different classes of business?
- If so, can return on capital be calculated for each class?
- Has issued Ordinary share capital increased during the period?
- If so, why? e.g. Rights issue? Bonus (scrip) issue? Acquisition?
- Are "per share" figures calculated using appropriately weighted number of shares?
- Are prior years' figures comparable?
- What individual items have caused significant movements on Reserves?
- Do any of them really belong in the profit and loss account?
- Is any long term debt convertible into ordinary shares?
- On what terms?
- Calculate appropriate measures on "fully diluted
- basis
- Is any long term debt repayable within a short period?
- If so, should it be treated as a current liability?
- Are there significant borrowings in foreign currencies?
- Are they matched by foreign assets?
- How are exchange losses and gains thereon treated?
- Is there any preference capital?
- Is short term borrowing included in capital employed? Should it be?
- Is the treatment of pensions appropriate? Is information revealed?
- Would capitalising leases significantly affect long term debt and gearing ratios?

d) **Activity**

"Activity ratios" are used to measure the productivity and efficiency of a firm. When compared to the industry average, the fixed-asset turnover ratio, for example, will show

how well the company is using its productive capacity. Similarly, the inventory turnover ratio will indicate whether the company used too much inventory in generating sales and whether the company may be carrying obsolete inventory.

Key questions to be identified in activity analysis are:

- Does management control the costs of the business well?
- Which costs, if any, have changed significantly, thus reducing or improving apparent profitability?
- Does management control the investment in assets well?
- Are fixed assets sufficient for the current level of activity? Are they replaced on a regular basis and adequately maintained?
- Are the stock levels adequate for the level of activity, or excessive?
- Are debts collected promptly?
- Are creditors paid within a reasonable period of time?
- Are surplus cash resources invested to increase overall returns?
- How variable are the profits before interest and tax?
- How many times can the interest be paid from the available profit?
- How many times can the existing dividend be paid from the available profit?

e) **Other**

Other questions can be asked in interpreting final accounts. These may relate to long-term trends in the business or to fixed assets, e.g.

i) *Long-term trends in the business*

- Are profits increasing or decreasing?
- Is the size of the business growing faster or slower than inflation?
- How has past growth been financed?
- Are the levels of stocks, debtors and creditors consistent with the long-term growth of the business?
- Are dividends increasing?
- Have any radical changes occurred in the past, giving rise to major changes in the business?

ii) *Fixed assets*

- Where fixed assets are shown "at historical cost":
  - -How old are they? What is their estimated current value?
  - -How would revaluation affect the depreciation charge?
- Where fixed assets are shown "at valuation":
  - -When was the valuation made, and on what basis?
  - -How have values changed since that date?
  - -Might the assets be more valuable if used for other purposes?
- What method of depreciation is used for valuation?
- What asset lives are used? Are different lives used for Current Cost Accounting?
- Has adequate provision been made for technological obsolescence?
- Are any assets leased? What is their value?
- How much are the annual rentals? How long is the commitment?
- Is goodwill:
  - -Shown as an asset?
  - -Written off against reserves?
  - -Being amortized by charges against profit?

- How does the book value of goodwill compare with the estimated surplus of the current value of fixed assets over their net book value?
- Has the status of any investments changed during the period? Subsidiaries? Associated companies? Trade investments? Non-consolidated subsidiaries?
- Are investments in associated companies shown by the "cost" method or by the "equity" method?
- What is the difference between cost and market value of quoted investments? Is market value used if it is lower than cost?
- Are there any long-term debtors? How have they been treated in the balance sheet?

Methods used to evaluate organizational performance

To evaluate the performance of a company with respect to these ratios, three methods are used, namely industry comparisons, time series analysis and absolute standards.

a) Industry comparisons

Data are used, such as that provided by commercial firms like Dun and Bradstreet and Profit Impact of Marketing Strategies (PIMS), are used for comparing the company with others of about the same size, that serve the same market and have similar products. The danger is that when industry averages include companies with different products or markets, averages can be misleading.

b) Time series analysis

Ratios for several periods are used to determine whether significant changes have occurred. These time series can also be used to project the future financial performance of the company.

c) Absolute standards

Most organizations have some minimum requirements for corporate performance regulations of the particular industry, e.g. the long-term debt-to-equity ratio should not exceed one. A thorough financial analysis usually is a condition of these three approaches.

Figure 2.5 shows an example of how a time series analysis can be used to back financial and business objectives.

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$$\frac{\text{Pre-tax} + \text{Interest (long term)}}{\text{Issued capital} + \text{Reserves} + \text{Debt capital (long term) i.e. assets}}$$

d) Return on equity

$$\frac{\text{Profit after tax}}{\text{Total equity}}$$

Note that:

$$\frac{\text{SALES}}{\text{NAV}} X \frac{\text{PROFIT} + \text{INTEREST}}{\text{SALES}} = \frac{\text{PROFIT} + \text{INTEREST}}{\text{NAV}}$$

NAV = Net asset value i.e. Net asset turnover X profit margin = return on assets

2) Liquidity

a) Current ratio

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

b) Quick (liquidity or acid test ratio):

$$\frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

c) Defensive interval ratio:

$$\frac{\text{Liquid assets}}{\text{Daily operating expenses}}$$

d) Inventory to net working capital:

$$\frac{\text{Inventory}}{\text{Current assets} - \text{Current liabilities}}$$

3(i) Leverage (coverage ratios or gearing) - debt cover

a) Conventional leverage:

$$\frac{\text{Debentures and loans}}{\text{Total shareholders funds (net worth)}}$$

b) Murphy Prussman Gearing:

$$\frac{\text{Debenture} + \text{Loans} + \text{Bank overdrafts}}{\text{Total long term financing} + \text{Bank overdraft}}$$

- How does the book value of goodwill compare with the estimated surplus of the current value of fixed assets over their net book value?
- Has the status of any investments changed during the period? Subsidiaries? Associated companies? Trade investments? Non-consolidated subsidiaries?
- Are investments in associated companies shown by the "cost" method or by the "equity" method?
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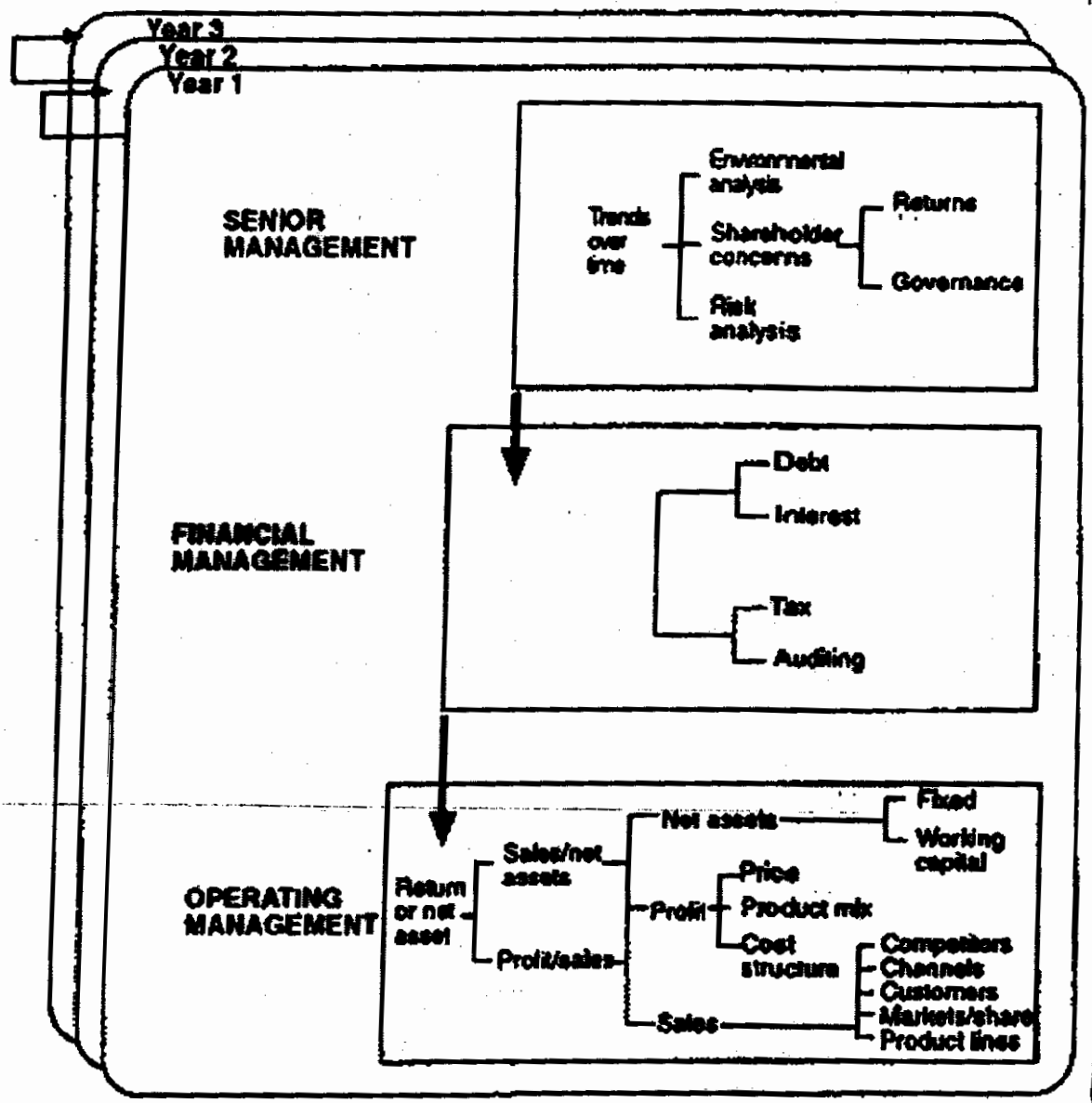
Figure 2.5 shows an example of how a time series analysis can be used to back financial and business objectives.

Figure 2.5 Framework for linking financial business objectives



The main types of ratio

1) Profitability

a) Gross profit margin or profit margin on sales:

$$\frac{Sales - Cost\ of\ goods\ sold}{Sales} \quad \text{or} \quad \frac{Pre-tax\ profit + Interest}{Sales}$$

b) Net profit margin:

$$\frac{Profit\ after\ tax}{Sales}$$

c) Return on assets:

$$\frac{\text{Pre-tax} + \text{Interest (long term)}}{\text{Issued capital} + \text{Reserves} + \text{Debt capital (long term) i.e. assets}}$$

d) Return on equity

$$\frac{\text{Profit after tax}}{\text{Total equity}}$$

Note that:

$$\frac{SALES}{NAV} X \frac{PROFIT + INTEREST}{SALES} = \frac{PROFIT + INTEREST}{NAV}$$

NAV = Net asset value i.e. Net asset turnover X profit margin = return on assets

2) Liquidity

a) Current ratio

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

b) Quick (liquidity or acid test ratio):

$$\frac{\text{Current assets - Inventory}}{\text{Current liabilities}}$$

c) Defensive interval ratio:

$$\frac{\text{Liquid assets}}{\text{Daily operating expenses}}$$

d) Inventory to net working capital:

$$\frac{\text{Inventory}}{\text{Current assets} - \text{Current liabilities}}$$

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a) Conventional leverage:

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b) Murphy Prussman Gearing:

$$\frac{\text{Debenture} + \text{Loans} + \text{Bank overdrafts}}{\text{Total long term financing} + \text{Bank overdraft}}$$

c) U.S. measure of leverage:

$$\frac{\text{Debenture} + \text{Loans} + \text{Bank overdrafts}}{\text{Total assets}}$$

(ii) Leverage - Interest cover

d) Interest coverage:

$$\frac{\text{Net profit before interest and tax}}{\text{Interest}}$$

e) Cumulative interest coverage:

$$\frac{\text{Net profit before interest and tax}}{\text{Cumulative interest}}$$

4) Activity (efficiency ratios)

a) Debtors turnover:

$$\frac{\text{Closing debtors}}{\text{Sales}}$$

b) Creditors turnover:

$$\frac{\text{Closing debtors}}{\text{Purchases}} \times 365$$

c) Inventory turnover:

$$\frac{\text{Cost of goods sold}}{0.5\,(\text{Opening and closing stock})}$$

d) Wages turnover:

$$\frac{\text{Sales}}{\text{Wages}}$$

e) Net asset turnover:

$$\frac{\text{Sales}}{\text{Net asset value}}$$

f) Profits per employee:

$$\frac{\text{Pre-tax profits}}{\text{Number of employees}}$$

Other useful ratios

1) Stock market ratios

a) Earnings per share:

$$\frac{\text{Profit after tax}}{\text{Number of ordinary shares in issue}}$$

b) Price earnings ratio:

$$\frac{\text{Market price per share}}{\text{Earnings per share}}$$

c) Dividend yield (net):

$$\frac{\text{Dividend per share (net)}}{\text{Market price per share}}$$

d) Dividend cover:

$$\frac{\text{Earnings per share}}{\text{Dividend per share}}$$

Financial measures of business unit performance

If an organization is made up of multiple divisions or Strategic Business Units (SBU's), then the following measures can be computed, provided that balance sheet and income statement data are available at the divisional or SBU level. These analyses enable corporate management to assess the performance of divisions, SBU's and/or their management.

a) Return on sales (ROS)

ROS is computed by dividing net income (NI), or profit (P) before or after interest and taxes, by total revenue:

$$\text{ROS} = \frac{\text{Net Income (or Profit) \$}}{\text{Sales \$}} \times 100$$

Some argue that interest expenses and tax should not be considered as they are outside the SBU manager's control. However, interest may be added to show managers that invested funds are not a free resource. This, however, understates the true cost of capital employed, because the interest is a charge for only the debt portion of capital.

b) Return on investment (ROI), return on net assets (RONA) and return on equity (ROE)

$$\text{ROI} = \frac{\textit{Net Income (or Profit)\$}}{\textit{Total assets \$}} \times 100$$

$$\text{RONA} = \frac{\textit{Net Income (or Profit)\$}}{\textit{Net assets \$}} \times 100$$

Note: NET ASSETS = TOTAL ASSETS- TOTAL LIABILITIES

$$\text{RONA} = \frac{\textit{NI (or P)\$}}{\textit{Owner's equity}} \times 100$$

$$= \frac{\textit{NI (or P)\$}}{\textit{(Total assets - All liabilities)}} \times 100$$

Note: Owner's equity = total assets - total liabilities

In using any of these measures to assess an SBU manager's ability to use assets efficiently, account should be taken of whether cash is centrally controlled or headquarters determines both credit and payment policies. If the latter, then cash receivables or payables or both should be omitted from the investment base.

c) Cash flow (CF)

Cash flow is not the same as net income (NI) or profit (P). It differs in two ways:

i) Cash flow includes depreciation, as this is a bookkeeping transaction, and tax, because tax is a cash cost. Thus,

CF = NI (or P) after tax and depreciation

ii) Cash flow is affected by balance sheet changes, e.g. increase in accounts receivable or additions to fixed assets (FA), e.g. plant and equipment and changes in working capital (WC).

CF = Net Income (or Profit) after tax *plus* Depreciation *minus* changes in FA and *minus* changes in WC

Note: If no tax is paid or if tax is deferred, use Net Income (or Profit) before tax.

The changes in (Δ) are calculated by the company's balance sheet entries for two consecutive periods.

Working Capital =

Δ Cash *plus or minus*
Δ Stock *plus or minus*

Δ Accounts receivable *plus or minus*
Δ Accounts payable (and other short-term liabilities)

Example:

Balance sheet

	2001	2002
	$(000's)	$(000's)
Profit	400	380
Plus		
Depreciation	120	125
Cash flow from operations	520	505
Less		
Increase in Working capital	(360)	(420)
Increase in Fixed Assets	(80)	(105)
Net cash generated or (Used)	50	(20)

d) Sustainable growth rate (SGR)

This is a measure of the ability of the business to grow within the constraints of its current financial policies. What is required is a balance sheet for the SBU which includes a justified assignment of the proportion of the total corporate short-run liabilities and long-run debt.

Once accomplished, the maximum sustainable growth rate (a measure of the ability of the business to fund the new assets needed to support increased sales) is estimated by:

$$SGR = \frac{p[(1-d)(1+L)]}{t - p[(1-d)(1+L)]}$$

where:

p = profit margin after taxes
d = dividend payout ratio (for a business unit this is computed from the corporate overhead charge plus any dividend paid to corporate?)
L = debt to equity ratio
t = ratio of assets (physical plant and equipment plus working capital) to sales.

The growth rate is expressed in nominal terms. Real SGR is reduced by 2.2% for every 5% of inflation for two reasons:

i) Depreciation charges based on historical costs overstate taxable income because they fail to fully recover the economic value of depreciating assets.
ii) Working capital increase solely due to inflation requires financing.

If the actual growth rate exceeds SGR, then the organisation can consider a number of strategic actions which affect the "productivity" side of the quest for increased profits ("productivity" as opposed to "volume" strategies to increase profits). These are:

i) reduce investment intensity (cut stocks and/or receivables)
ii) reduce dividends
iii) obtain injections of "equity" from the corporate body
iv) increase debt.

Now attempt exercise 2.7.

Exercise 2.7 Ratio analysis

Nigel Munyati's horticultural business continued to flourish. Six years later his condensed financial accounts for the last three years are summarised below (N.B. he introduced fresh capital into the business):

Profit and Loss account for the year to 31 March	1999		2000		2001	
			$(000's)			
Sales (all on credit)		415		645		885
Less: Cost of goods sold:						
Opening stock	35		40		65	
Purchases	340		565		805	
	375		605		870	
Less; Closing stock	40	335	65	540	115	755
Gross profit		80		105		130
Less: Expenses	40		50		60	
Loan interest	-	40	-	50	10	70
Net Profit		40		55		60

Balance Sheet as at 31 March	1999		2000		2001	
			($ 000's)			
Fixed assets		89		93		101
Current assets						
Stocks	40		65		115	
Trade debtors	52		108		250	
Cash at Bank	12	104	6	179	-	365
		193		272		466
Financed by:						
Capital		100		120		146
Add. Net profit for the year	40		55		60	
Less: Drawings	24	16	35	20	38	22
(all on 31 March)		116		140		168
Loan		-		-		110
Current liabilities						
Creditors	77		132		178	
Bank overdraft	-	77	-	132	10	188
		174		272		466

Compute the following ratios for 1999, 2000 and 2001.

a) gross profit on sales
b) gross profit on cost of goods sold
c) stock turnover
d) return on capital employed
e) current ratio
f) liquidity (or quick) ratio
g) debtor collection period

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h) working capital
i) ratio of current assets to total assets
j) ratio of cash to current liabilities

Comment briefly on the results of the business over the last three years.

Key terms

Activity

ratio
Average cost
Balance sheet
Capital expenditure
Cost of goods sold
Credit balances
Current liabilities
Debit balances
Direct and indirect costs
Dual effect
First-in-first-out
Fixed and current assets
Gross margin
Gross sales
Last-in-first-out
Leverage
Liquidity ratios
ess

Loans
Manufacturing account
Net profit
Net sales
Net sales and net purchases
Opening and closing stock
Overheads
Profit
Profitability ratios
Profit and loss account
Ratio analysis
Revenue expenditure
Trading account
The accounting equation
Working capital
Work-in-progr

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Figure 3.1 shows a pro forma cash flow statement.

Figure 3.1 Pro forma cash flow statement

Cash Flow Statement For The Year Ended 31 December 2001		
	$	$
Net cash inflow from operating activities	X	
Returns on investments and servicing of finance		
Interest received	X	
Interest paid	(X)	
Dividends paid	(X)	
Net cash inflow/ (outflow) from returns on investments and servicing of finance		X
Taxation		
Corporation tax paid	(X)	
Tax paid		(X)
Investing activities		
Payments to acquire intangible fixed assets	(X)	
Payments to acquire tangible fixed assets	(X)	
Receipts from sales of tangible fixed assets	X	
Net cash inflow/ (outflow) from investing activities	X or	(X)
Net cash inflow before financing		X
Financing		
Issue of ordinary capital	X	
Repurchase of debenture loan	(X)	
Expenses paid in connection with share issues	(X)	
Net cash inflow/ (outflow) from financing	X or	(X)
Increase/ (Decrease) in cash and cash equivalents		X

NOTES ON THE CASH FLOW STATEMENT

1. *Reconciliation of operating profit to net cash inflow from operating activities*

		$
Operating profit		X
Depreciation charges		X
Loss on sale of tangible fixed assets		X
Increase/(decrease) in stocks	(X)	
Increase/(decrease) in debtors	(X)	
Increase/(decrease) in creditors		X
Net cash inflow from operating activities		X

2. *Analysis of changes in cash and cash equivalents during the year*

Balance at 1 January 2001	X
Net cash inflow	X
Balance at 31 December 2001	X

3. *Analysis of the balances of cash and cash equivalents as shown in the balance sheet*

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h) working capital
i) ratio of current assets to total assets
j) ratio of cash to current liabilities

Comment briefly on the results of the business over the last three years.

Key terms

Activity

ratio
Average cost
Balance sheet
Capital expenditure
Cost of goods sold
Credit balances
Current liabilities
Debit balances
Direct and indirect costs
Dual effect
First-in-first-out
Fixed and current assets
Gross margin
Gross sales
Last-in-first-out
Leverage
Liquidity ratios
ess

Loans
Manufacturing account
Net profit
Net sales
Net sales and net purchases
Opening and closing stock
Overheads
Profit
Profitability ratios
Profit and loss account
Ratio analysis
Revenue expenditure
Trading account
The accounting equation
Working capital
Work-in-progr

Unit 3 - Cash flow accounting

Unit objectives

This unit is intended to provide an explanation of:

- The aim, use and construction of cash flow statements
- The meaning and calculation of the source and application of funds statement and their importance to business
- A discussion on credit and types of loans available to businesses
- An explanation of the cost of funds and capital
- The importance and calculation of ownership costs, including depreciation, interest, repair, taxes and insurance.

It can be argued that 'profit' does not always give a useful or meaningful picture of a company's operations. Readers of a company's financial statements might even be misled by a reported profit figure.

Shareholders might believe that if a company makes a profit after tax of say $100,000, then this is the amount which it could afford to pay as a dividend. Unless the company has sufficient cash available to stay in business and also to pay a dividend, the shareholders' expectations would be wrong. Survival of a business depends not only on profits but perhaps more on its ability to pay its debts when they fall due. Such payments might include 'profit and loss' items such as material purchases, wages, interest and taxation etc, but also capital payments for new fixed assets and the repayment of loan capital when this falls due (e.g. on the redemption of debentures).

Structure of the unit

"Cash flow" is one of the most vital elements in the survival of a business. It can be positive, or negative, which is obviously a most undesirable situation. The unit develops the concept of cash flow and then shows how the funds can be used in the business. Funds are not only generated internally; they may be externally generated, and so the unit finishes with a discussion of externally generated funds.

Aim of a cash flow statement

The aim of a cash flow statement should be to assist users:

- to assess the company's ability to generate positive cash flows in the future
- to assess its ability to meet its obligations to service loans, pay dividends etc
- to assess the reasons for differences between reported and related cash flows
- to assess the effect on its finances of major transactions in the year.

The statement therefore shows changes in cash and cash equivalents rather than working capital.

Indirect method cash flow statement

Figure 3.1 shows a pro forma cash flow statement.

Figure 3.1 Pro forma cash flow statement

Cash Flow Statement For The Year Ended 31 December 2001		
	$	$
Net cash inflow from operating activities	X	
Returns on investments and servicing of finance		
Interest received	X	
Interest paid	(X)	
Dividends paid	(X)	
Net cash inflow/ (outflow) from returns on investments and servicing of finance		X
Taxation		
Corporation tax paid	(X)	
Tax paid		(X)
Investing activities		
Payments to acquire intangible fixed assets	(X)	
Payments to acquire tangible fixed assets	(X)	
Receipts from sales of tangible fixed assets	X	
Net cash inflow/ (outflow) from investing activities	X or	(X)
Net cash inflow before financing		X
Financing		
Issue of ordinary capital	X	
Repurchase of debenture loan	(X)	
Expenses paid in connection with share issues	(X)	
Net cash inflow/ (outflow) from financing	X or	(X)
Increase/ (Decrease) in cash and cash equivalents		X

NOTES ON THE CASH FLOW STATEMENT

1. *Reconciliation of operating profit to net cash inflow from operating activities*

		$
Operating profit		X
Depreciation charges		X
Loss on sale of tangible fixed assets		X
Increase/(decrease) in stocks	(X)	
Increase/(decrease) in debtors	(X)	
Increase/(decrease) in creditors		X
Net cash inflow from operating activities		X

2. *Analysis of changes in cash and cash equivalents during the year*

Balance at 1 January 2001	X
Net cash inflow	X
Balance at 31 December 2001	X

3. *Analysis of the balances of cash and cash equivalents as shown in the balance sheet*

	19X4	19X3	Change in year
	$	$	$
Cash at bank and in hand	X	X	(X)
Short term investments	X	X	X
Bank overdrafts	(X)	(X)	(X)
	X	X	X

4. *Analysis of changes in finance during the year*

	Share capital	Debenture loan
	$	$
Balance at 1 January 2001	X	X
Cash inflow/(outflow) from financing	X	(X)
Profit on repurchase of debenture loan for less than its book value	-	(X)
Balance at 31 December 2001	X	X

Note: Any transactions which do not result in a cash flow should not be reported in the statement. Movements within cash or cash equivalents should not be reported.

Explanations

It is often difficult to conceptualise just what is "cash" and what are "cash equivalents". Cash need not be physical money; it can take other forms:

a) Cash in hand and deposits repayable on demand with any bank or financial institution.

b) Cash equivalents: Short term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

c) Operating activities: Principal revenue-producing activities of the company and other activities that are not investing or financing activities. The reconciliation between the operating profit reported in the profit and loss account and the net cash flow from operating activities must show the movements in stocks, debtors and creditors related to operating activities.

d) Returns on investments and servicing of finance. Cash inflows from these sources includes:

i) interest received, also any related tax recovered, and
ii) dividends received.

Cash outflows from these sources includes:

i) interest paid
ii) dividends paid
iii) interest element of finance lease payments.

e) Taxation: These cash flows will be those to and from the tax authorities in relation to the company's revenue and capital profits, i.e. corporation tax.

f) Investing activities: the acquisition and disposal of long term assets and other investments not included in cash equivalents.

Cash receipts include:

i) receipts from sales or disposals of fixed assets (or current asset investments)
ii) receipts from sales of investments in subsidiary undertakings net of any cash or cash equivalents transferred as part of the sale
iii) receipts from sales of investments in other entities
iv) receipts from repayment or sales of loans made to other entities.

Cash payments include;

i) payments to acquire fixed assets
ii) payments to acquire investments in subsidiary net of balances of cash and cash equivalents acquired
iii) payments to acquire investments in other entities
iv) loans made and payments to acquire debt of other entities.

g) Financing: activities that result in changes in the size and composition of the equity capital and borrowings of the enterprise.

Financing cash inflows include:

i) receipts from issuing shares or other equity instruments
ii) receipts from issuing debentures, loans, notes and bonds and so on.

Financing cash outflows include:

i) repayments of amounts borrowed
ii) the capital element of finance lease rental payments
iii) payments to re-acquire or redeem the entity's shares.

Now attempt exercise 3.1.

Exercise 3.1 Cash flow statement

Set out below are the accounts for *TPK Pvt Ltd* as at 31 December 2000 and 2001.

PROFIT AND LOSS ACCOUNTS FOR THE YEARS TO 31 DECEMBER	2000 Z$'000	2001 Z$'000
Operating profit	9,400	20,640
Interest paid	-	(280)
Interest received	100	40
Profit before taxation	9,500	20,400
Taxation	(3,200)	(5,200)
Profit after taxation	6,300	15,200
Dividends		
Preference (paid)	(100)	(100)
Ordinary: interim (paid)	1,000)	(2,000)
final (proposed)	(3,000)	(6,000)
Retained profit for the year	2,200	7,100
BALANCE SHEETS AS AT 31 DECEMBER		
Fixed Assets		
Plant, machinery and equipment at cost	17,600	23,900
Less: accumulated depreciation	9,500	10,750
	8,100	13,150
Current Assets		
Stocks	5,000	15,000
Trade debtors	8,600	26,700
Prepayments	300	400
Cash at bank and in hand	600	-
	14,500	42,100
Current liabilities		
Bank overdraft	-	16,200
Trade creditors	6,000	10,000
Accruals	800	1,000
Taxation	3,200	5,200
Dividends	3,200	6,000
	3,000	38,400
	9,600	16,850
Share capital		
Ordinary shares of $1 each	5,000	5,000
10% preference shares of $1 each	1,000	1,000
Profit and loss account	3,000	10,100
	9,000	16,100
Loans		
15% debenture stock	600	750
	9,600	16,850

Prepare a cash flow statement for the year to 31 December 2001.

Statements of source and application of funds

Although cash flow statements have now superseded statements of source and application of funds, funds flow statements may not disappear entirely. Some

businesses or industries will continue to find fund flow statements useful and informative. For this reason, it is necessary to examine funds flow statements.

Funds statement on a cash basis

Funds statements on a cash basis can be prepared by classifying and/or consolidating:

a) net balance sheet changes that occur between two points in time into changes that increase cash and changes that decrease cash

b) from the income statement and the surplus (profit and loss) statement, the factors that increase cash and the factors that decrease cash and

c) this information in a sources and uses of funds statement form.

Step (a) involves comparing two relevant Balance sheets side by side and then computing the changes in the various accounts.

Sources of funds that increase cash

Sources of funds which increase cash are as follows:

- a net decrease in any asset other than cash or fixed assets
- a gross decrease in fixed assets
- a net increase in any liability
- proceeds from the sale of preferred or common stock
- funds provided by operations (which usually are not expressed directly in the income statement).

To determine funds provided by operations, we have to add back depreciation to net income after taxes. In other words, suppose we have:

Net income after taxes of a company, being	= $750,000
and depreciation (non-cash expense), being	= $100,500
	850,500

Then, the funds provided by operations of such a company will be obtained by adding the values of the two above items, i.e. $850,500. Thus, the net income of a company usually understates the value of funds provided by operations by the value of the depreciation - in this case by $100,500.

But then, depreciation is not a source of funds, since funds are generated only from operations. Thus, if a company sustains an operating loss before depreciation, funds are not provided regardless of the magnitude of the depreciation charges.

Application of funds of a company usually include:

- a *net increase* in any asset other than cash or fixed assets
- a *gross increase* in fixed assets
- a *net decrease* in any liability

- a retirement or purchase of stock and
- the payment of cash dividends.

To avoid double counting, we usually compute gross changes in fixed assets by adding depreciation for the period to net fixed assets at the ending financial statement date and subtract from the resulting amount the net fixed assets at the beginning financial statement date. The residual represents the gross change in fixed assets for the period. If the residual is positive, it represents a use of funds; if it is negative, it represents a source of funds.

Once all sources and applications of funds are computed, they may be arranged in statement form so that we can analyse them better.

Now attempt exercises 3.2 and 3.3

Exercise 3.2 Source and application of funds I

Given below are some different sources and applications of funds finance items purposely scattered for an Agribusiness Company K for the year ended 31 December 19X8.

1) Identify them as sources and applications of funds, and arrange them in a proper manner with the Sources of funds on the left and the Applications on the right of a tabulated statement for the said period.

2) Comment briefly on some of the uses of the tabulated statement.

	$
Increase in cash position =	12,000
Decrease in debtors =	8,000
Increase in long term debt =	2,500
Increase in stocks =	26,500
Increase in tax prepayments =	2,000
Net profit =	35,000
Increase in other accruals =	3,000
Additions to fixed assets =	4,500
Cash dividends =	15,000
Increase in bank loans =	20,000
Increase in prepaid expenses =	2,500
Increase in investments =	9,000
Increase in creditors =	5,000
Decrease in accrued taxes =	8,000
Depreciation =	6,000

Note: The above figures are based on the balance sheet and income statement of Company K, which are not shown in this exercise.

Exercise 3.3 Sources and applications of funds II

Using the data and information in the annual reports (especially the balance sheet and income statements) of Cerial Marketing Board provided for 1993 and 1992:

a) compute and identify the sources and applications of funds of the parastatal for the years 1992 and 1993 and

b) arrange them into a sources and applications of funds statement for 1993.

Funds use and credit planning

Funds (or capital) is a collective term applied to the assortment of productive inputs that have been produced. Funds may be broadly categorised into operating (or working) capital (difference between current assets and current liabilities), and ownership (or investment) capital.

Operating capital in a company or firm usually refers to production inputs that are normally used up within a production year. On the other hand, investment capital (or funds) refers to durable resources like machines and buildings in which money invested is tied up for several years. Funds are generally quantified in monetary value terms.

Funds use, especially borrowed capital, is usually influenced by many factors, namely: the alternative demands for it; the availability of credit as and when needed; the time and interest rate payable on it; the types of loans that might be needed to generate it; and the cost of funds and business ownership cost. Thus, careful credit planning is essential in the successful operations of any company.

In general, this requires the application of what, in strategic company management, has come to be known as the strategic four-factor model called "SORS". The letters that make up SORS stand for:-

- Strategic planning (S)
- Organisational planning (O)
- Resource requirements (R)
- Strategic control (S).

Figure 3.2 summarises the simplified matrix of interacting factors and component parts that make up 'SORS'. In general terms, SORS is influenced or determined by four major factors: the external environment, the internal environment, organisational culture and resource (especially funds) availability. These four factors interact to create four inter-related components which normally determine the success or failure of any given company. These are:

a) competitive environment
b) strategic thrust
c) product/market dynamics
d) competitive cost position and restructuring.

A proper and pragmatic manipulation of these four component parts requires:

- assessing the external environment
- understanding the internal environment
- adopting a leadership strategy
- strategically planning the finances of the company.

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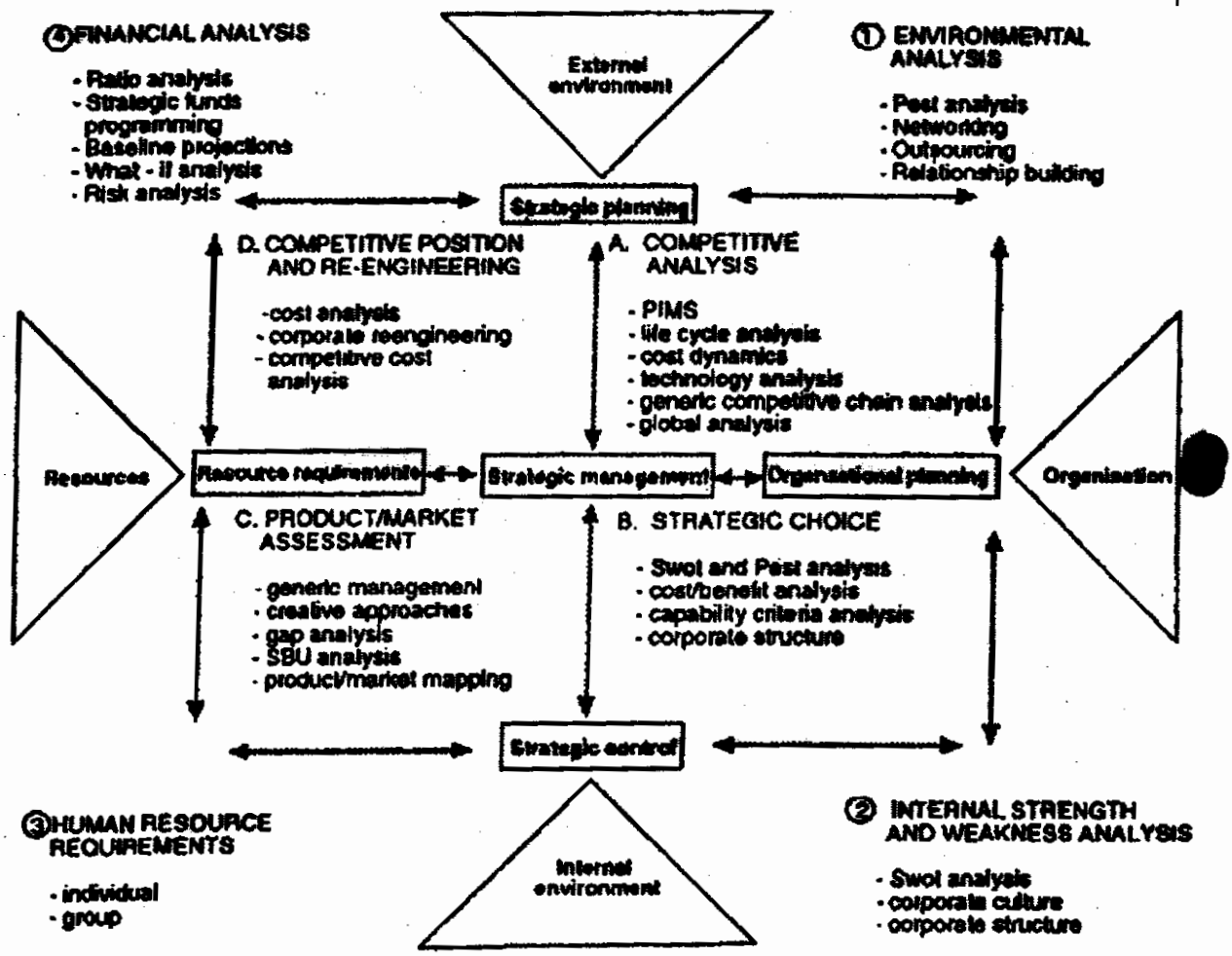
The purpose of this text is not to cover all the components summarised in figure 3.1. Instead, the major concern is to have a proper understanding of financial analysis for strategic planning. This, in strategic management, requires a sound financial analysis backed by strategic funds programming, baseline projections (or budgeting), what-if (decision tree) analysis, and risk analysis. This book attempts to cover all these areas.

Alternative uses of funds

Dealing with alternatives is what management is all about. Some of the tools for evaluating alternatives (e.g. partial budgets, cash flow budgets and financial statements), are covered in this text.

It is assumed that most people are already familiar with the analysis that usually leads to major capital use decisions in various companies. However, highlighted are some of these points throughout the book, since company backgrounds differ and what is considered "major capital use decisions" varies with the size of businesses. For instance, a $50,000 expenditure may be major to one company and of little significance to another.

Figure 3.2 The strategic four-factor model



Almost everyone is familiar with the substantial capital or funds demand in all forms of business. Obviously, this does not all have to be owned capital. Evaluation of

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successful businesses has found that many of them operate with 50 percent or more rented or borrowed capital. The pressure on businesses to grow is likely to continue, and these businesses are likely to grow faster than will be permitted by each reinvesting its own annual savings from net income alone. Thus, because demand for credit will continue to expand, careful credit planning and credit use decisions are of paramount importance to marketing companies in any country.

Credit and types of loans

Credit is the capacity to borrow. It is the right to incur debt for goods and/or services and repay the debt over some specified future time period. Credit provision to a company means that the business is allowed the use of a productive good while it is being paid for.

Other than the fact that funds generated within a business are usually inadequate to meet expanding production and other activities, credit is often used in order to:

- increase the returns on equity capital
- allow more efficient labor utilization
- increase income.

The process of using borrowed, leased or "joint venture" resources from someone else is called leverage. Using the leverage provided by someone else's capital helps the user business go farther than it otherwise would. For instance, a company that puts up $1,000 and borrows an additional $4,000 is using 80% leverage. The objective is to increase total net income and the return on a company's own equity capital.

Borrowed funds are generally referred to as loans. There are various ways of classifying loans, namely:

- *in payment terms*, e.g. instalment versus single payment
- *in period-of-payment terms*, e.g. short-term versus intermediate-term or long-term
- *in the manner of its security terms*, e.g. secured versus unsecured
- *in interest payment terms*, e.g. simple interest versus add-on, versus discount, versus balloon.

On the basis of the above classification, there are twelve common types of loans, namely: short-term loans, intermediate-term loans, long-term loans, unsecured loans, secured loans, instalment loans, single payment loans, simple-interest loans, add-on interest loans, discount or front-end loans, balloon loans and amortised loans.

Short-term loans are credit that is usually paid back in one year or less. Short term loans are usually used in financing the purchase of operating inputs, wages for hired labour, machinery and equipment, and/or family living expenses. Usually lenders expect short-term loans to be repaid after their purposes have been served, e.g. after the expected production output has been sold.

Loans for operating production inputs e.g. cotton for the Cotton Company of Zimbabwe (COTCO) and beef for the Cold Storage Company of Zimbabwe (CSC), are assumed to be self-liquidating. In other words, although the inputs are used up in the production, the added returns from their use will repay the money borrowed to

purchase the inputs, plus interest. Astute managers are also expected to have figured in a risk premium and a return to labour management. On the other hand, loans for investment capital items like machinery are not likely to be self-liquidating in the short term. Loans for family living expenses are not at all self-liquidating and must come out of net cash income after all cash obligations are paid.

Intermediate-term (IT) loans are credit extended for several years, usually one to five years. This type of credit is normally used for purchases of buildings, equipment and other production inputs that require longer than one year to generate sufficient returns to repay the loan.

Long-term loans are those loans for which repayment exceeds five to seven years and may extend to 40 years. This type of credit is usually extended on assets (such as land) which have a long productive life in the business. Some land improvement programmes like land levelling, reforestation, land clearing and drainage-way construction are usually financed with long-term credit.

Unsecured loans are credit given out by lenders on no other basis than a promise by the borrower to repay. The borrower does not have to put up collateral and the lender relies on credit reputation. Unsecured loans usually carry a higher interest rate than secured loans and may be difficult or impossible to arrange for businesses with a poor credit record.

Secured loans are those loans that involve a pledge of some or all of a business's assets. The lender requires security as protection for its depositors against the risks involved in the use planned for the borrowed funds. The borrower may be able to bargain for better terms by putting up collateral, which is a way of backing one's promise to repay.

Instalment loans are those loans in which the borrower or credit customer repays a set amount each period (week, month, year) until the borrowed amount is cleared. Instalment credit is similar to charge account credit, but usually involves a formal legal contract for a predetermined period with specific payments. With this plan, the borrower usually knows precisely how much will be paid and when.

Single payment loans are those loans in which the borrower pays no principal until the amount is due. Because the company must eventually pay the debt in full, it is important to have the self-discipline and professional integrity to set aside money to be able to do so. This type of loan is sometimes called the "lump sum" loan, and is generally repaid in less than a year.

Simple interest loans are those loans in which interest is paid on the unpaid loan balance. Thus, the borrower is required to pay interest only on the actual amount of money outstanding and only for the actual time the money is used (e.g. 30 days, 90 days, 4 months and 2 days, 12 years and one month).

Add-on interest loans are credit in which the borrower pays interest on the full amount of the loan for the entire loan period. Interest is charged on the face amount of the loan at the time it is made and then "added on". The resulting sum of the principal and interest is then divided equally by the number of payments to be made. The company is thus paying interest on the face value of the note although it has use of only a part of the initial balance once principal payments begin. This type of loan is sometimes called the "flat rate" loan and usually results in an interest rate higher than the one specified.

Discount or front-end loans are loans in which the interest is calculated and then subtracted from the principal first. For example, a $5,000 discount loan at 10% for one year would result in the borrower only receiving $4,500 to start with, and the $5,000 debt would be paid back, as specified, by the end of a year.

On a discount loan, the lender discounts or deducts the interest in advance. Thus, the effective interest rates on discount loans are usually much higher than (in fact, more than double) the specified interest rates.

Balloon loans are loans that normally require only interest payments each period, until the final payment, when all principal is due at once. They are sometimes referred to as the "last payment due", and have a concept that is the same as the single payment loan, but the due date for repaying principal may be five years or more in the future rather than the customary 90 days or 6 months for the single payment loan.

In some cases a principal payment is made each time interest is paid, but because the principal payments do not amortise (pay off) the loan, a large sum is due at the loan maturity date.

Amortised loans are a partial payment plan where part of the loan principal and interest on the unpaid principal are repaid each year. The standard plan of amortisation, used in many intermediate and long-term loans, calls for equal payments each period, with a larger proportion of each succeeding payment representing principal and a small amount representing interest.

The repayment schedule for a 10 year standard amortised loan of $10,000 at 7% is presented in table 3.1.

The constant annual payment feature of the amortised loan is similar to the "add on" loan described above, but involves less interest because it is paid only on the outstanding loan balance, as with simple interest. Amortisation tables are used to determine the regular payment for an amortised loan. The $1,424.00 annual payment for the 10 year loan was determined by using the amortisation factor (AF) of 0.1424 and multiplying that by $10,000, the face value of the loan. The proper procedure for deriving a schedule as in table 3.1 is to:

a) first read off the amortisation factor from an amortisation table for a given interest rate against the given year the loan is expected to last
b) calculate the total payment at the end of each year
c) then, on a year-by-year basis, calculate the annual interest payable on the balance of the principal
d) obtain the annual principal payment by subtracting the calculated annual interest from the total end-of-year payment.

Repeat the procedure for each of the years involved. Now attempt exercise 3.4.

Table 3.2 Amortization of a $10,000 loan in 10 years by equal annual installments @ 7% interest

Year	Unpaid principal at beginning of year ($)	Payment at the end of the year		
		Interest ($)	Principal ($)	Total ($)
1	10,000.00	700.00	724.00	1,424.00
2	9,276.00	649.30	774.70	1,424.00
3	8,501.30	595.10	828.90	1,424.00
4	7,672.40	537.10	886.90	1,424.00
5	6,785.50	475.00	949.00	1,424.00
6	5,836.50	408.60	1,015.40	1,424.00
7	4,821.10	337.50	1,086.50	1,424.00
8	3,734.60	261.40	1,162.60	1,424.00
9	2,572.00	180.00	1,244.00	1,424.00
10	1,328.00	93.00	1,331.00	1,424.00
Total		4,240.00	10,000.00	14,240.00

Exercise 3.4 Amortized loan

Suppose a new machine is being financed by the Dairiboard of Zimbabwe Ltd with an 18 year $25,000 loan at a 9% interest rate. Obtain an amortisation schedule to show how the Dairiboard of Zimbabwe Ltd will pay off the resulting amortised loan. (Hint: the AF is 0.1142).

Cost of funds

The cost of funds (capital) is crucial to investment analysis. Usually, the present value measures of an investment's economic worth depend on the use of an appropriate discount rate (or rate of return). The most appropriate rate is the firm's cost of capital. This rate, when determined, provides a yardstick for testing the acceptability of any investment; those that have a high probability of achieving a rate of return in excess of the firm's cost of capital are acceptable.

A firm's cost of capital may be estimated through:

a) the use of the interest rate attainable by "investing" in lending institutions (deposits or securities) before taxes as an estimate of opportunity cost of capital and

b) the determination of the weighted average after-tax cost of capital, which reflects the cost of all forms of capital the firm uses. The two basic sources of capital are borrowed funds from lending institutions and ownership or internal capital representing profits reinvested in the business.

To estimate the weighted average cost of capital, one needs to determine:

a) the present cost of borrowed or leased funds from each source
b) an average cost of internal capital as reflected by the percentage of equity in business and risks being taken and
c) an adjustment for income tax effect.

Cost of borrowed capital

Lenders' interest rates vary by type of lender. And since many of these lenders' rates are keyed to money market conditions, predicting costs of borrowed capital through time is imprecise. Less difficulty exists when borrowers have considerable long-term borrowings at fixed rates. Normally, a rough idea of the average cost of borrowed capital for a firm is obtained by dividing the total interest paid by the company by the capital borrowed by the same company.

Cost of ownership (Equity) capital

Cost of ownership capital is more difficult to determine than that of borrowed capital. Theoretically, one knows that the cost of ownership capital is the opportunity cost of placing the owner's funds elsewhere in comparable risk situations. Generally, the guide for selecting an appropriate ownership cost of capital is to use the condition that the cost of equity or ownership capital should be equal to or greater than the cost of borrowed capital.

Average cost of capital

Using a balance sheet or other information, one can estimate the percentage of the sources of capital in a business. Assuming that a company has a 50% equity (or will average about half borrowed and half owned capital over the investment period) the average cost of capital is estimated as follows:

Table 3.2 Average cost of capital

Sources of capital	(1) % of Capital	(2) % of cost	Weighted cost (1) x (2)
Equity capital borrowed	50	0.10	5.00
Bank	40	0.09	3.60
Insurance company	10	0.08	0.80
TOTAL			9.40

Business ownership costs

There are five ownership costs that every company incurs, namely: depreciation costs, interest costs, repair costs taxes, and insurance costs. They are commonly referred to as the "DIRTI 5".

a) Depreciation

This is a procedure for allocating the used up value of durable assets over the period they are owned by the business or until they are salvaged. By depreciating an asset, an allowance is made for the deterioration in the asset's value as a result of use (wear and tear), age and obsolescence. Generally, property is depreciable if it is used in business or to earn income;, wears out, decays, gets used up or becomes obsolete, and has a determinable useful life of more than one year. The proportion of the original cost to be depreciated in any one year is largely a matter of judgment and financial management. Normally, the depreciation allowance taken in any given year should reflect the actual decline in value of the asset - whether it is designed to influence income taxes or the undepreciated value of an asset reflecting the resale value of the asset.

There are four main and acceptable methods of calculating depreciation, namely:

- the accelerated cost recovery system (ACRS) method
- the straight line method
- the declining balance method
- the sum of the years-digits method.

The accelerated cost recovery system method is a relatively new method of calculating depreciation for tangible property. It came into use effectively in 1981. As a method ACRS generally gives much faster write off than other methods because it has tax savings as its primary objective. It usually gives little consideration to actual year-to-year change in value. Thus, for accounting purposes, other methods are more appropriate.

For tax purposes, property is classified as follows:-

i) *3 year property* - automobiles and light-duty trucks used for business purposes and certain special tools, and depreciable property with a midpoint life of 4 years or less.
ii) *5 year property* - most farm equipment, grain bins, single purpose structures and fences, breeding beef and dairy cattle, office equipment and office furniture.
iii) *10 year property*- includes depreciable property with an expected life between 10 and 12.4 years.
iv) *15 year property* - buildings.

The straight line method computes depreciation, Ds, as follows:

$$D_s = \frac{OC - SV}{L}$$

where:
OC = Original cost or basis
SV = Salvage value
L = expected useful life of the asset in the business.

Declining balance method calculates depreciation as:-

$$D_d = RV \times R$$

where:
RV = undepreciated value of the asset at the start of the accounting period such that, in year 1, RV = OC, and in succeeding years,
$RV_i = [RV_{i-1} - D_{d,i-1}] \times R$ (with salvage value not being deducted from original value before computing depreciation),
R = the depreciation rate, which may be up to twice the rate of decline, 1/L, allowed under straight line method.

Sum of the year-digits method estimates the depreciation of an asset as follows:-

$$D_y = \frac{RY(OC - SV)}{S}$$

where:

RY = estimated years of useful life remaining
S = sum of the numbers representing years of useful life (i.e. for an asset with 5 years useful life, S would be 1+2+3+4+5 = 15).

b) **Interest costs (rates)** are incurred by a company when owned or borrowed funds are invested in durable assets, because such money is tied up and cannot be used for other purposes. On borrowed money, there will be a regular interest payment, a standing obligation which must be met regardless of the level of use of the asset purchased with the borrowed money. Also, an interest charge should be calculated on equity capital. In this case, the charge would be an opportunity interest cost. An annual charge should be made because the money invested has alternative productive uses, which may range from earning interest on a savings account to increasing production.

c) **Repairs costs** are principally variable costs incurred on assets because of the level of use of the assets through wear and tear. Some durable assets, however, deteriorate with time even though they are not used. Fences, buildings and some moving parts on machinery and equipment are prime examples, although they deteriorate even more rapidly with use.

d) **Taxes** are fixed costs that are usually incurred on machinery, buildings and some other durable assets. Taxes are usually not related to the level of use or productive services provided. Thus, any investment analysis that ignores the annual tax obligation associated with the proposed investment will be incomplete.

e) **Insurance costs** are also fixed costs that are incurred when a financed asset is purchased and has to be protected against fire, weather, theft, etc. Usually, lenders require that a financed asset be insured as a meant of security for the loan. Some operators, particularly those with low equity, also insure some of their more valuable assets because of the strain the loss of those assets would place on the financial condition of the business. In this country, the major insurance companies are Old Mutual Insurance and General Accident Insurance, Minet Insurance, Prudential Insurance, etc. Now attempt exercise 3.5.

Key terms

Average cost
of capital
Business ownership costs
Cash
Cash equivalents
Cash flow statement
Cash payments
Cost of borrowed capital
Cost of equity capital
Depreciation
DIRTI 5
Financing
Funds use
Insurance costs
Interest rates
Investing activities
Operating activities
Pro forma cash flow statement
Repair costs
Returns on investment and servicing of finance
SORS
Source and application of funds
Strategic four-factor model
Taxation
Taxes

Unit 4 - Budgetary control

Unit objectives

This unit is intended to provide:

- An indication and explanation of the importance of budgetary control in marketing as a key marketing control technique
- An overview of the advantages and disadvantages of budgeting
- An introduction to the methods for preparing budgets
- An appreciation of the uses of budgets.

There are two types of control, namely budgetary and financial. This unit concentrates on budgetary control only. This is because financial control was covered in detail in units one and two. Budgetary control is defined by the Institute of Cost and Management Accountants (CIMA) as:

> "The establishment of budgets relating the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy, or to provide a basis for its revision".

Structure of the unit

Of all business activities, budgeting is one of the most important and, therefore, requires detailed attention. The unit looks at the concept of responsibility centres, and the advantages and disadvantages of budgetary control. It then goes on to look at the detail of budget construction and the use to which budgets can be put. Like all management tools, the unit highlights the need for detailed information, if the technique is to be used to its fullest advantage.

Budgetary control methods

a) Budget:

- A formal statement of the financial resources set aside for carrying out specific activities in a given period of time.
- It helps to co-ordinate the activities of the organisation.

An example would be an advertising budget or sales force budget.

b) Budgetary control:

- A control technique whereby actual results are compared with budgets.
- Any differences (variances) are made the responsibility of key individuals who can either exercise control action or revise the original budgets.

Budgetary control and responsibility centers;

These enable managers to monitor organizational functions.

A responsibility center can be defined as any functional unit headed by a manager who is responsible for the activities of that unit.

There are four types of responsibility centers:

a) *Revenue centers*

Organizational units in which outputs are measured in monetary terms but are not directly compared to input costs.

b) *Expense centers*

Units where inputs are measured in monetary terms but outputs are not.

c) *Profit centers*

Where performance is measured by the difference between revenues (outputs) and expenditure (inputs). Inter-departmental sales are often made using "transfer prices".

d) *Investment centres*

Where outputs are compared with the assets employed in producing them, i.e. ROI.

Advantages of budgeting and budgetary control

There are a number of advantages to budgeting and budgetary control:

- Compels management to think about the future, which is probably the most important feature of a budgetary planning and control system. Forces management to look ahead, to set out detailed plans for achieving the targets for each department, operation and (ideally) each manager, to anticipate and give the organisation purpose and direction.
- Promotes coordination and communication.
- Clearly defines areas of responsibility. Requires managers of budget centres to be made responsible for the achievement of budget targets for the operations under their personal control.
- Provides a basis for performance appraisal (variance analysis). A budget is basically a yardstick against which actual performance is measured and assessed. Control is provided by comparisons of actual results against budget plan. Departures from budget can then be investigated and the reasons for the differences can be divided into controllable and non-controllable factors.
- Enables remedial action to be taken as variances emerge.
- Motivates employees by participating in the setting of budgets.
- Improves the allocation of scarce resources.
- Economises management time by using the management by exception principle.

Problems in budgeting

Whilst budgets may be an essential part of any marketing activity they do have a number of disadvantages, particularly in perception terms.

- Budgets can be seen as pressure devices imposed by management, thus resulting in:
  - a) bad labour relations
  - b) inaccurate record-keeping.
- Departmental conflict arises due to:
  - a) disputes over resource allocation
  - b) departments blaming each other if targets are not attained.
- It is difficult to reconcile personal/individual and corporate goals.
- Waste may arise as managers adopt the view, "we had better spend it or we will lose it". This is often coupled with "empire building" in order to enhance the prestige of a department.

Responsibility versus controlling, i.e. some costs are under the influence of more than one person, e.g. power costs.

- Managers may overestimate costs so that they will not be blamed in the future should they overspend.

Characteristics of a budget

A good budget is characterized by the following:

- Participation: involve as many people as possible in drawing up a budget.
- Comprehensiveness: embrace the whole organization.
- Standards: base it on established standards of performance.
- Flexibility: allow for changing circumstances.
- Feedback: constantly monitor performance.
- Analysis of costs and revenues: this can be done on the basis of product lines, departments or cost centers.

Budget organization and administration:

In organizing and administering a budget system the following characteristics may apply:

a) *Budget centres:* Units responsible for the preparation of budgets. A budget centre may encompass several cost centres.

b) *Budget committee:* This may consist of senior members of the organisation, e.g. departmental heads and executives (with the managing director as chairman). Every part of the organisation should be represented on the committee, so there should be a representative from sales, production, marketing and so on. Functions of the budget committee include:

- Coordination of the preparation of budgets, including the issue of a manual
- Issuing of timetables for preparation of budgets
- Provision of information to assist budget preparations
- Comparison of actual results with budget and investigation of variances.

c) *Budget Officer:* Controls the budget administration The job involves:

- liaising between the budget committee and managers responsible for budget preparation
- dealing with budgetary control problems
- ensuring that deadlines are met
- educating people about budgetary control.

d) *Budget manual:*

This document:

- charts the organisation
- details the budget procedures
- contains account codes for items of expenditure and revenue
- timetables the process
- clearly defines the responsibility of persons involved in the budgeting system.

Budget preparation

Firstly, determine the principal budget factor. This is also known as the key budget factor or limiting budget factor and is the factor, which will limit the activities of an undertaking. This limits output, e.g. sales, material or labour.

a) Sales budget: this involves a realistic sales forecast. This is prepared in units of each product and also in sales value. Methods of sales forecasting include:

- sales force opinions
- market research
- statistical methods (correlation analysis and examination of trends)
- mathematical models.

In using these techniques consider:

- company's pricing policy
- general economic and political conditions
- changes in the population
- competition
- consumers' income and tastes
- advertising and other sales promotion techniques
- after sales service
- credit terms offered.

b) Production budget: expressed in quantitative terms only and is geared to the sales budget. The production manager's duties include:

- analysis of plant utilisation
- work-in-progress budgets.

If requirements exceed capacity he may:

- subcontract
- plan for overtime

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- introduce shift work
- hire or buy additional machinery
- The materials purchases budget's both quantitative and financial.

c) Raw materials and purchasing budget:

- The materials usage budget is in quantities.
- The materials purchases budget is both quantitative and financial.

Factors influencing a) and b) include:

- production requirements
- planning stock levels
- storage space
- trends of material prices.

d) Labour budget: is both quantitative and financial. This is influenced by:

- production requirements
- man-hours available
- grades of labour required
- wage rates (union agreements)
- the need for incentives.

e) Cash budget: a cash plan for a defined period of time. It summarises monthly receipts and payments. Hence, it highlights monthly surpluses and deficits of actual cash. Its main uses are:

- to maintain control over a firm's cash requirements, e.g. stock and debtors
- to enable a firm to take precautionary measures and arrange in advance for investment and loan facilities whenever cash surpluses or deficits arises
- to show the feasibility of management's plans in cash terms
- to illustrate the financial impact of changes in management policy, e.g. change of credit terms offered to customers.

Receipts of cash may come from one of the following:

- cash sales
- payments by debtors
- the sale of fixed assets
- the issue of new shares
- the receipt of interest and dividends from investments.

Payments of cash may be for one or more of the following:

- purchase of stocks
- payments of wages or other expenses
- purchase of capital items
- payment of interest, dividends or taxation.

Steps in preparing a cash budget

i) Step 1: set out a pro forma cash budget month by month. Below is a suggested layout.

	Month 1	Month 2	Month 3
	$	$	$
Cash receipts			
Receipts from debtors			
Sales of capital items			
Loans received			
Proceeds from share issues			
Any other cash receipts			
Cash payments			
Payments to creditors			
Wages and salaries			
Loan repayments			
Capital expenditure			
Taxation			
Dividends			
Any other cash expenditure			
Receipts less payments			
Opening cash balance b/f	W.	X	Y
Closing cash balance c/f	X	Y	Z

ii) Step 2: sort out cash receipts from debtors
iii) Step 3: other income
iv) Step 4: sort out cash payments to suppliers
v) Step 5: establish other cash payments in the month

Figure 4.1 shows the composition of a master budget analysis.

Figure 4.1 Composition of a master budget

OPERATING BUDGET	FINANCIAL BUDGET
consists of:-	consists of
Budget P/L acc: get:	Cash budget
Production budget	Balance sheet
Materials budget	Funds statement
Labour budget	
Admin. budget	
Stocks budget	

f) Other budgets:

These include budgets for:

- administration
- research and development
- selling and distribution expenses
- capital expenditures
- working capital (debtors and creditors).

The master budget (figure 4.1) illustrates this. Now attempt exercise 4.1.

Exercise 4.1 Budgeting I

Draw up a cash budget for *D. Sithole* showing the balance at the end of each month, from the following information provided by her for the six months ended 31 December 19X2.

a) Opening Cash $ 1,200.

	2001										2002	
Sales at $20 per unit	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
	260	200	320	290	400	300	350	400	390	400	260	250

Cash is received for sales after 3 months following the sales.

c) Production in units:	240	270	300	320	350	370	380	340	310	260	250

d) Raw materials cost $5/unit. Of this 80% is paid in the month of production and 20% after production.
e) Direct labour costs of $8/unit are payable in the month of production.
f) Variable expenses are $2/unit. Of this 50% is paid in the same month as production and 50% in the month following production.
g) Fixed expenses are $400/month payable each month.
h) Machinery costing $2,000 to be paid for in October 19X2.
i) Will receive a legacy of $ 2,500 in December 19X2.
j) Drawings to be $300/month.

An example

A sugar cane farm in the Lowveld district may devise an operating budget as follows:

- Cultivation
- Irrigation
- Field maintenance
- Harvesting
- Transportation.

With each operation, there will be costs for labour, materials and machinery usage. Therefore, for e.g. harvesting, these may include four resources, namely:

- Labour:

  -cutting
  -sundry

- Tractors
- Cane trailers
- Implements and sundries.

Having identified cost centres, the next step will be to make a quantitative calculation of the resources to be used, and to further break this down to shorter periods, say, one month or three months. The length of period chosen is important in that the shorter it is, the greater the control that can be exercised by the budget but the greater the expense in preparation of the budget and reporting of any variances.

The quantitative budget for harvesting may be calculated as shown in figure 4.2.

Figure 4.2 Quantitative harvesting budget

Harvesting	1st quarter	2nd quarter	3rd quarter	4th quarter
Labour				
Cutting	nil	9,000 tonnes	16,000 tonnes	10,000 tonnes
Sundry	nil	300 man days	450 man days	450 man days
Tractors	nil	630 hours	1,100 hours	700 hours
Cane trailers	nil	9,000 tonnes	16,000 tonnes	10,000 tonnes
Imp, & sundries	nil	9,000 tonnes	16,000 tonnes	10,000 tonnes

Each item is measured in different quantitative units - tonnes of cane, man days etc.- and depends on individual judgment of which is the best unit to use.

Once the budget in quantitative terms has been prepared, unit costs can then be allocated to the individual items to arrive at a budget for harvesting in financial terms as shown in table 4.2.

Charge out costs

In table 4.2 tractors have a unit cost of $7.50 per hour - machines like tractors have a whole range of costs like fuel and oil, repairs and maintenance, driver, licence, road tax and insurance and depreciation. Some of the costs are fixed, e.g. depreciation and insurance, whereas some vary directly with use of the tractor, e.g. fuel and oil. Other costs such as repairs are unpredictable and may be very high or low - an estimated figure based on past experience.

Figure 4.3 Harvesting cost budget

Item harvesting	Unit cost	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
Labor						
Cutting	$0.75 per tonne	-	6,750	12,000	7,500	26,250
Sundry	$2.50 per day	-	750	1,125	1,125	3,000
Tractors	$7.50 per hour	-	4,725	8,250	5,250	18,225
Cane Trailers	$0.15 per tonne	-	1,350	2,400	1,500	5,250
Imp. & sundries	$0.25 per tonne	-	2,250	4,000	2,500	8,750
		-	$15,825	$27,775	$17,875	$61,475

So, overall operating cost of the tractor for the year may be budgeted as shown in figure 4.4.

If the tractor is used for more than 1,000 hours then there will be an over-recovery on its operational costs and if used for less than 1,000 hours there will be under-recovery, i.e. in the first instance making an internal 'profit' and in the second a 'loss'.

Figure 4.4 Tractor costs

		Unit rate	Cost per annum (1,000 hours)
		($)	($)
Fixed costs	Depreciation	2,000.00	2,000.00
	Licence and insurance	200.00	200.00
	Driver	100.00 per month	1,200.00
	Repairs	600.00 per annum	600.00
Variable costs	Fuel and oil	2.00 per hour	2,000.00
	Maintenance	3.00 per 200 hours	1,500.00
			7,500.00
	No. of hours used		1,000.00
	Cost per hour		7.50

Master budget

The master budget for the sugar cane farm may be as shown in figure 4.5. The budget represents an overall objective for the farm for the whole year ahead, expressed in financial terms.

Table 4.5 Operating budget for sugar cane farm 19X4

	1st quarter	2nd quarter	3rd quarter	4th quarter	Total $
Revenue from cane		130,000	250,000	120,000	500,000
Less: Costs					
Cultivation	37,261	48,268	42,368	55,416	183,313
Irrigation	7,278	15,297	18,473	11,329	52,377
Field maintenance	4,826	12,923	15,991	7,262	41,002
Harvesting	-	15,825	27,775	17,875	61,475
Transportation	-	14,100	24,750	15,750	54,600
	49,365	106,413	129,357	107,632	392,767
Add: Opening valuation	85,800	135,165	112,240	94,260	85,800
	135,165	241,578	241,597	201,892	478,567
Less: Closing valuation	135,165	112,240	94,260	90,290	90,290
Net crop cost	-	129,338	147,337	111,602	388,277
Gross surplus	-	66,200	102,663	8,398	111,723
Less: Overheads	5,876	7,361	7,486	5,321	26,044
Net profitless)	(5,876)	(6,699)	95,177	3,077	85,679

Once the operating budget has been prepared, two further budgets can be done, namely:

i. Balance sheet at the end of the year.
ii. Cash flow budget which shows the amount of cash necessary to support the operating budget. It is of great importance that the business has sufficient funds to support the planned operational budget.

Reporting back

During the year the management accountant will prepare statements, as quickly as possible after each operating period, in our example, each quarter, setting out the actual operating costs against the budgeted costs. This statement will calculate the difference between the 'budgeted' and the 'actual' cost, which is called the 'variance'.

There are many ways in which management accounts can be prepared. To continue with our example of harvesting on the sugar cane farm, management accounts at the end of the third quarter can be presented as shown in figure 4.6.

Figure 4.6 Management accounts - actual costs against budget costs
Management accounts for sugar cane farm 3rd quarter 19X4

	3rd quarter			Year to date		
	Actual	Budget	Variance	Actual	Budget	Variance
Item Harvesting						
Labour						
- Cutting	12,200	12,000	(200)	19,060	18,750	(310)
- Sundry	742	1,125	383	1,584	1,875	291
Tractors	9,375	8,250	(1,125)	13,500	12,975	(525)
Cane trailers	1,678	2,400	722	2,505	3,750	1,245
Imp & sundries	4,270	4,000	(270)	6,513	6,250	(263)
	28,265	27,775	(490)	43,162	43,600	438

Here, actual harvesting costs for the 3rd quarter are $28,265 against a budget of $27,775 indicating an increase of $490 whilst the cumulative figure for the year to date shows an overall saving of $438. It appears that actual costs are less than budgeted costs, so the harvesting operations are proceeding within the budget set and satisfactory. However, a further look may reveal that this may not be the case. The budget was based on a cane tonnage cut of 16,000 tonnes in the 3rd quarter and a cumulative tonnage of 25,000. If these tonnages have been achieved then the statement will be satisfactory. If the actual production was much higher than budgeted then these costs represent a very considerable saving, even though only a marginal saving is shown by the variance. Similarly, if the actual tonnage was significantly less than budgeted, then what is indicated as a marginal saving in the variance may, in fact, be a considerable overspending.

Price and quantity variances

Just to state that there is a variance on a particular item of expenditure does not really mean a lot. Most costs are composed of two elements - the quantity used and the price per unit. A variance between the actual cost of an item and its budgeted cost may be due to one or both of these factors. Apparent similarity between budgeted and actual costs may hide significant compensating variances between price and usage.

For example, say it is budgeted to take 300 man days at $3.00 per man day - giving a total budgeted cost of $900.00. The actual cost on completion was $875.00, showing a saving of $25.00. Further investigations may reveal that the job took 250 man days at a daily rate of $3.50 - a favourable usage variance but a very unfavourable price variance. Management may therefore need to investigate some significant variances revealed by further analysis, which a comparison of the total costs would not have revealed. Price and usage variances for major items of expense are discussed below.

Labour

The difference between actual labour costs and budgeted or standard labour costs is known as direct wages variance. This variance may arise due to a difference in the amount of labour used or the price per unit of labour, i.e. the wage rate. The direct wages variance can be split into:

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i) Wage rate variance: the wage rate was higher or lower than budgeted, e.g. using more unskilled labor, or working overtime at a higher rate.

ii) Labor efficiency variance: arises when the actual time spent on a particular job is higher or lower than the standard labor hours specified, e.g. breakdown of a machine.

Materials

The variance for materials cost could also be split into price and usage elements:

i) Material price variance: arises when the actual unit price is greater or lower than budgeted. Could be due to inflation, discounts, alternative suppliers etc.

ii) Material quantity variance: arises when the actual amount of material used is greater or lower than the amount specified in the budget, e.g. a budgeted fertiliser at 350 kg per hectare may be increased or decreased when the actual fertiliser is applied, giving rise to a usage variance.

Overheads

Again, overhead variance can be split into:

i) Overhead volume variance: where overheads are taken into the cost centres, a production higher or lower than budgeted will cause an over-or under-absorption of overheads.

ii) Overhead expenditure variance: where the actual overhead expenditure is higher or lower than that budgeted for the level of output actually produced.

Calculation of price and usage variances

The price and usage variance are calculated as follows:

Price variance = (budgeted price - actual price) X actual quantity
Usage variance = (budgeted quantity - actual quantity) X budgeted price

Now attempt exercise 4.2.

Exercise 4.2 Computation of labour variances

It was budgeted that it would take 200 man days at $10.00 per day to complete the task costing $2,000.00 when the actual cost was $1,875.00, being 150 man days at $12.50 per day. Calculate:

i) Price variance
ii) Usage variance

Comment briefly on the results of your calculation.

Management action and cost control

Producing information in management accounting form is expensive in terms of the time and effort involved. It will be very wasteful if the information once produced is not put into effective use.

There are five parts to an effective cost control system. These are:

a) preparation of budgets
b) communicating and agreeing budgets with all concerned
c) having an accounting system that will record all actual costs
d) preparing statements that will compare actual costs with budgets, showing any variances and disclosing the reasons for them, and
e) taking any appropriate action based on the analysis of the variances in d) above.

Action(s) that can be taken when a significant variance has been revealed will depend on the nature of the variance itself. Some variances can be identified to a specific department and it is within that department's control to take corrective action. Other variances might prove to be much more difficult, and sometimes impossible, to control.

Variances revealed are historic. They show what happened last month or last quarter and no amount of analysis and discussion can alter that. However, they can be used to influence managerial action in future periods.

Zero base budgeting (ZBB)

After a budgeting system has been in operation for some time, there is a tendency for next year's budget to be justified by reference to the actual levels being achieved at present. In fact this is part of the financial analysis discussed so far, but the proper analysis process takes into account all the changes which should affect the future activities of the company. Even using such an analytical base, some businesses find that historical comparisons, and particularly the current level of constraints on resources, can inhibit really innovative changes in budgets. This can cause a severe handicap for the business because the budget should be the first year of the long range plan. Thus, if changes are not started in the budget period, it will be difficult for the business to make the progress necessary to achieve longer term objectives.

One way of breaking out of this cyclical budgeting problem is to go back to basics and develop the budget from an assumption of no existing resources (that is, a zero base). This means all resources will have to be justified and the chosen way of achieving any specified objectives will have to be compared with the alternatives. For example, in the sales area, the current existing field sales force will be ignored, and the optimum way of achieving the sales objectives in that particular market for the particular goods or services should be developed. This might not include any field sales force, or a different-sized team, and the company then has to plan how to implement this new strategy.

The obvious problem of this zero-base budgeting process is the massive amount of managerial time needed to carry out the exercise. Hence, some companies carry out the full process every five years, but in that year the business can almost grind to a halt. Thus, an alternative way is to look in depth at one area of the business each year on a rolling basis, so that each sector does a zero base budget every five years or so.

Key terms

Budgeting
Budgetary control
Budget preparation
Management action and cost control
budgeting
Master budget
Price and quantity variance
Responsibility centres
Zero based

Unit 5 - Information for decision making

Unit objectives

This unit is intended to provide:

- An overview of the elements required for manager to make informed decisions among alternative courses of action
- An explanation of the relevant costs for decision making purposes
- The construction of Cost-Volume-Profit analyses and Breakeven charts and their usefulness in decision making
- The factors affecting the economic choice of whether to make components in-house or buy from outside
- How to make decisions on shutdown, additions or deletions to product lines or ranges, important to marketing managers.

The need for a decision arises in business because a manager is faced with a problem and alternative courses of action are available. In deciding which option to choose he will need all the information which is relevant to his decision; and he must have some criterion on the basis of which he can choose the best alternative. Some of the factors affecting the decision may not be expressed in monetary value. Hence, the manager will have to make 'qualitative' judgements, e.g. in deciding which of two personnel should be promoted to a managerial position. A 'quantitative' decision, on the other hand, is possible when the various factors, and relationships between them, are measurable. This unit will concentrate on quantitative decisions based on data expressed in monetary value and relating to costs and revenues as measured by the management accountant.

Structure of the unit

Often "information" is interpreted by marketers as being "external" market based information. However, "internal" sources are just as important, none more so than financial information. The unit looks at the relevant elements of cost for decision making, then looks at the various techniques including breakeven analysis. Other important business decisions are whether to source components internally or have them brought in from outside, and whether to continue with operations if they appear uneconomic. The unit examines the techniques useful in helping to make decisions in these areas.

Elements of a decision

A quantitative decision problem involves six parts:

a) An objective that can be quantified Sometimes referred to as 'choice criterion' or 'objective function', e.g. maximisation of profit or minimisation of total costs.

b) **Constraints** Many decision problems have one or more constraints, e.g. limited raw materials, labour, etc. It is therefore common to find an objective that will maximise profits subject to defined constraints.

c) **A range of alternative courses of action** under consideration. For example, in order to minimise costs of a manufacturing operation, the available alternatives may be:

i) to continue manufacturing as at present
ii) to change the manufacturing method
iii) to sub-contract the work to a third party.

d) **Forecasting** of the incremental costs and benefits of each alternative course of action.

e) **Application** of the decision criteria or objective function, e.g. the calculation of expected profit or contribution, and the ranking of alternatives.

f) **Choice** of preferred alternatives.

Relevant costs for decision making

The costs which should be used for decision making are often referred to as "relevant costs". CIMA defines relevant costs as 'costs appropriate to aiding the making of specific management decisions'.

To affect a decision a cost must be:

a) Future: Past costs are irrelevant, as we cannot affect them by current decisions and they are common to all alternatives that we may choose.
b) Incremental: ' Meaning, expenditure which will be incurred or avoided as a result of making a decision. Any costs which would be incurred whether or not the decision is made are not said to be incremental to the decision.
c) Cash flow: Expenses such as depreciation are not cash flows and are therefore not relevant. Similarly, the book value of existing equipment is irrelevant, but the disposal value is relevant.

Other terms:

d) Common costs: Costs which will be identical for all alternatives are irrelevant, e.g. rent or rates on a factory would be incurred whatever products are produced.
e) Sunk costs: Another name for past costs, which are always irrelevant, e.g. dedicated fixed assets, development costs already incurred.
f) Committed costs: A future cash outflow that will be incurred anyway, whatever decision is taken now, e.g. contracts already entered into which cannot be altered.

Opportunity cost

Relevant costs may also be expressed as opportunity costs. An opportunity cost is the benefit foregone by choosing one opportunity instead of the next best alternative.

Example

A company is considering publishing a limited edition book bound in a special leather. It has in stock the leather bought some years ago for $1,000. To buy an equivalent quantity now would cost $2,000. The company has no plans to use the leather for other purposes, although it has considered the possibilities:

a) of using it to cover desk furnishings, in replacement for other material which could cost $900
b) b) of selling it if a buyer could be found (the proceeds are unlikely to exceed $800).

In calculating the likely profit from the proposed book before deciding to go ahead with the project, the leather would *not* be costed at $1,000. The cost was incurred in the past for some reason which is no longer relevant. The leather exists and could be used on the book without incurring any specific cost in doing so. In using the leather on the book, however, the company will lose the opportunities of either disposing of it for $800 or of using it to save an outlay of $900 on desk furnishings.

The better of these alternatives, from the point of view of benefiting from the leather, is the latter. "Lost opportunity" cost of $900 will therefore be included in the cost of the book for decision making purposes.

The relevant costs for decision purposes will be the sum of:

i) 'avoidable outlay costs', i.e. those costs which will be incurred only if the book project is approved, and will be avoided if it is not
ii) ii) the opportunity cost of the leather (not represented by any outlay cost in connection to the project).

This total is a true representation of 'economic cost'.

Now attempt exercise 5.1.

Exercise 5.1 Relevant costs and opportunity costs

Zimglass Industries Ltd. has been approached by a customer who would like a special job to be done for him, and is willing to pay $60,000 for it. The job would require the following materials.

Material	Total units required	Units already in stock	Book value of units in stock $/unit	Realisable value $/unit	Replacement cost $/unit
A	1000	0	-	-	16.00
B	1000	600	12.00	12.50	15.00
C	1000	700	13.00	12.50	14.00
D	200	200	14.00	16.00	19.00

a) Material B is used regularly by Zimglass Industries Ltd, and if units of B are required for this job, they would need to be replaced to meet other production demands.

b) Materials C and D are in stock due to previous over-buying, and they have restricted use. No other use could be found for material C, but the units of material D could be used in another job as a substitute for 300 units of

material E, which currently costs $15 per unit (of which the company has no units in stock at the moment).

Calculate the relevant costs of material for deciding whether or not to accept the contract. You must carefully and clearly explain the reasons for your treatment of each material.

The assumptions in relevant costing

Some of the assumptions made in relevant costing are as follows:

a) Cost behaviour patterns are known, e.g. if a department closes down, the attributable fixed cost savings would be known.
b) The amount of fixed costs, unit variable costs, sales price and sales demand are known with certainty.
c) The objective of decision making in the short run is to maximise 'satisfaction', which is often known as 'short-term profit'.
d) The information on which a decision is based is complete and reliable.

Cost-volume-profit (CVP) analysis

CVP analysis involves the analysis of how total costs, total revenues and total profits are related to sales volume, and is therefore concerned with predicting the effects of changes in costs and sales volume on profit. It is also known as 'breakeven analysis'.

The technique used carefully may be helpful in the following situations:

a) Budget planning. The volume of sales required to make a profit (breakeven point) and the 'safety margin' for profits in the budget can be measured.
b) Pricing and sales volume decisions.
c) Sales mix decisions, to determine in what proportions each product should be sold.
d) Decisions that will affect the cost structure and production capacity of the company.

The basic principles of CVP analysis

CVP analysis is based on the assumption of a linear total cost function (constant unit variable cost and constant fixed costs) and so is an application of marginal costing principles.

The principles of marginal costing can be summarized as follows:

a) Period fixed costs are a constant amount, therefore if one extra unit of product is made and sold, total costs will only rise by the variable cost (the *marginal cost*) of production and sales for that unit.
b) Also, total costs will fall by the variable cost per unit for each reduction by one unit in the level of activity.
c) The additional profit earned by making and selling one extra unit is the extra revenue from its sales minus its variable costs, i.e. the contribution per unit.
d) As the volume of activity increases, there will be an increase in total profits (or a reduction in losses) equal to the total revenue minus the total extra variable costs. This is the extra contribution from the extra output and sales.

e) The total profit in a period is the total revenue minus the total variable cost of goods sold, minus the fixed costs of the period.

Revenue	X
Variable cost of sales	(X)
CONTRIBUTION	X
Fixed Costs	(X)
PROFIT	X

Example: breakeven charts and P/V charts

Sabre Products Ltd. makes and sells a single product. The variable cost is $3/unit and the variable cost of selling is $1/unit. Fixed costs total $6,000 and the unit sales price is $6.

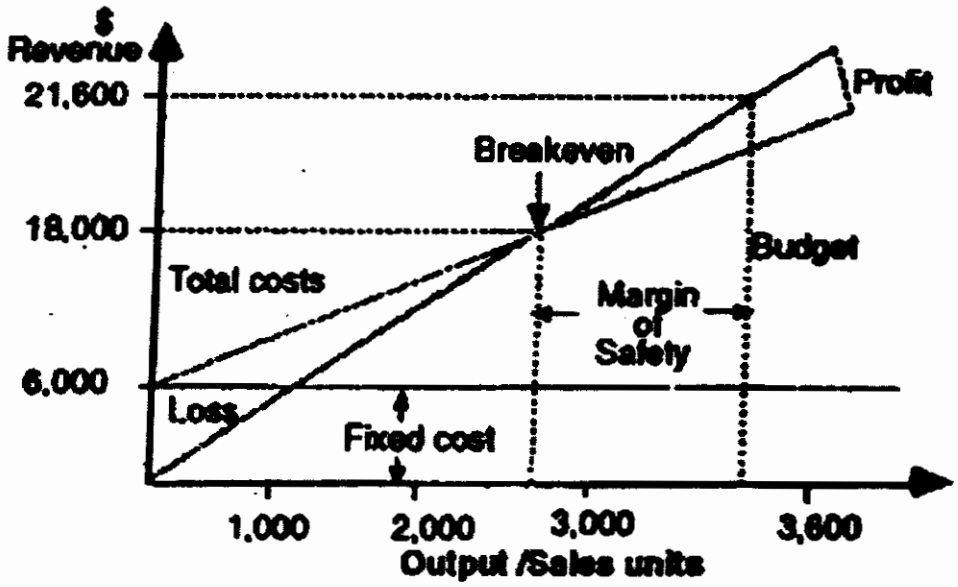
Sabre Products Ltd. budgets to make and sell 3,600 units in the next year.

Draw a breakeven chart, and a P/V graph, each showing the expected amount of output and sales required to breakeven, and the safety margin in the budget.

Solution:

A breakeven chart records the amount of fixed costs, variable costs, total costs and total revenue at all volumes of sales, and at a given sales price as follows:

Figure 5.1 Breakeven chart



The 'breakeven point' is where revenues and total costs are exactly the same, so there is no profit or loss. It may be expressed in terms of units of sale or in terms of sales revenue. Reading from the graph, the breakeven point is 3,000 units of sale and $18,000 in sales revenue.

The 'margin of safety' is the amount which actual output/sales may fall short of the budget without a loss being made, often expressed as a percentage of the budgeted sales volume. It is a rough measure of the risk that Sabre Products might make a loss if

it fails to achieve its budget. In our example, the margin of safety is calculated as follows:

	Units
Budgeted sales	3,600
Breakeven point	3,000
Margin of safety (MOS)	600

As a percentage of budgeted sales; the

$$MOS = \frac{600}{3{,}600}$$

= 16.67%.

A high margin of safety shows a good expectation of profits, even if the budget is not achieved.

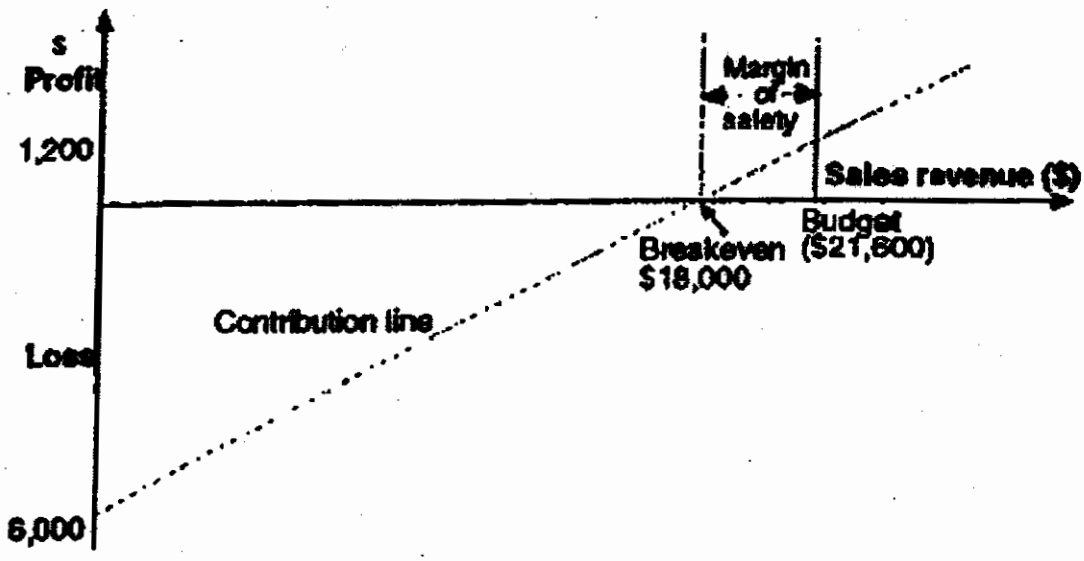
The Profit/Volume (P/V) graph

The P/V graph is similar to the breakeven chart, and records the profit or loss at each level of sales, at a given sales price. It is a straight line graph, drawn by recording the following:

i) the loss at zero sales, which is the full amount of fixed costs
ii) the profit/(loss) at the budgeted sales level.

The two points are then joined up. In our example above, the PA/graph would look like this:

Figure 5.2 The profit/volume (P/V) graph



The breakeven point may be read from the graph as $18,000 in sales revenue, and the margin of safety is $3,600 in sales revenue or 16.67% budgeted sales revenue.

The arithmetic of CVP analysis

a) To calculate the breakeven point the following formula applies:

$$S = V + F \text{ at the breakeven point,}$$

where:

S = sales revenue
V = variable costs
F = fixed costs (so that V + F = total costs).

Therefore:

$$(S - V) = F$$

At the breakeven point, total contribution (S - V) equals the amount of fixed costs (F).

b) To calculate the amount of sales needed to achieve a target profit the following formula applies:

$$S = V + F + P$$

Therefore,

$$(S - V) = (F + P)$$

To earn a target profit, the total contribution (S - V) must be sufficient to cover fixed costs plus the amount of profit required (F + P).

Now attempt exercise 5.2.

Exercise 5.2 Arithmetic of CVP analysis

Ndlovu Ltd. manufactures a single product, which has a variable cost of sale of $8/unit and a sales price of $12/unit. Budgeted fixed costs are $24,000.

Required:

Calculate the volume of sales that would be required to achieve the following:

a) Breakeven
b) Earn a profit of at least $6,000.

The contribution/sales ratio (C/S ratio)

The C/S ratio shows how much contribution is earned per $1 of sales revenue earned. Since costs and sales revenues are linear functions, the C/S ratio is constant at all levels of output and sales. It is used sometimes as a measure of performance or profitability, and in CVP analysis to calculate the sales required to breakeven or earn a

target profit or the expected total contribution at a given volume of sales and with a given C/S ratio.

As an alternative method of calculation, the breakeven point in sales revenue is calculated as follows:

$$\frac{\textit{Required contribution}}{C/S\,ratio} = \frac{\textit{Fixed costs}}{C/S\,ratio}$$

Similarly, the sales volume needed to achieve a target profit is calculated as follows:

$$\frac{\textit{Required contribution}}{C/S\,ratio} = \frac{\textit{Fixed costs} + \textit{profit}}{C/S\,ratio}$$

In exercise 5.2, the C/S ratio is

$$\frac{\$4}{\$12} \text{ or } 33\frac{1}{3}\%$$

a) The breakeven point is therefore

$$\frac{\text{Required contribution}}{C/S\,ratio} = \frac{\$24{,}000}{33\frac{1}{3}\%}$$

Required sales to breakeven

= $72,000 or divided by $12 = 6,000 units

b) To achieve a target profit of $6,000 the required sales are calculated as;

$$\frac{\text{Required contribution}}{C/S\,ratio} = \frac{\$30{,}000}{33\frac{1}{3}\%}$$

= $90,000
or divided by 12
= 7,500 units

Make or buy decisions

A company is often faced with the decision as to whether it should manufacture a component or buy it outside.

Suppose for example, that *Masanzu Ltd.* make four components, W, X, Y and Z, with expected costs for the coming year as follows:

	W	X	Y	Z
Production (units)	1,000	2,000	4,000	3,000
Unit marginal costs	$	$	$	$
Direct materials	4	5	2	4
Direct labour	8	9	4	6
Variable production overheads	2	3	1	2
	14	17	7	12

Direct fixed costs/annum and committed fixed costs are as follows:

Incurred as a direct consequence of making W	1,000
Incurred as a direct consequence of making X	5,000
Incurred as a direct consequence of making Y	6,000
Incurred as a direct consequence of making Z	8,000
Other committed fixed costs	30,000
	50,000

A subcontractor has offered to supply units W, X, Y and Z for $12, $21, $10 and $14 respectively.

Decide whether *Masanzu* Ltd. should make or buy the components.

Solution and discussion

a) The relevant costs are the differential costs between making and buying. They consist of differences in unit variable costs plus differences in directly attributable fixed costs. Subcontracting will result in some savings on fixed cost.

	W	X	Y	Z
	$	$	$	$
Unit variable cost of making	14	17	7	12
Unit variable cost of buying	12	21	10	14
	(2)	-4	2	2
Annual requirements in units	1,000	2,000	4,000	3,000
Extra variable cost of buying per annum	(2,000)	8,000	12,000	6,000
Fixed cost saved by buying	1,000	5,000	6,000	8,000
Extra total cost of buying	(3,000)	3,000	6,000	(2,000)

b) The company would save $3,000/annum by sub-contracting component W, and $2,000/annum by sub-contracting component Z.

c) In this example, relevant costs are the variable costs of in-house manufacture, the variable costs of sub-contracted units, and the saving in fixed costs.

d) Other important considerations are as follows:

i) If components W and Z are sub-contracted, the company will have spare capacity. How should that spare capacity be profitably used? Are there hidden benefits to be obtained from sub-contracting? Will there be resentment from the workforce?

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ii) Would the sub-contractor be reliable with delivery times, and is the quality the same as those manufactured internally?
iii) Does the company wish to be flexible and maintain better control over operations by making everything itself?
iv) Are the estimates of fixed costs savings reliable? In the case of product W, buying is clearly cheaper than making in-house. However, for product Z, the decision to buy rather than make would only be financially attractive if the fixed cost savings of $8,000 could be delivered by management. In practice, this may not materialise.

Now attempt exercise 5.3.

Exercise 5.3 Make or buy

The Pip, a component used by *Goya Manufacturing Ltd.*, is incorporated into a number of its completed products. The Pip is purchased from a supplier at $2.50 per component and some 20,000 are used annually in production.

The price of $2.50 is considered to be competitive, and the supplier has maintained good quality service over the last five years. The production engineering department at Goya Manufacturing Ltd. has submitted a proposal to manufacture the Pip in-house. The variable cost per unit produced is estimated at $1.20 and additional annual fixed costs that would be incurred if the Pip were manufactured are estimated at $20,800.

a) Determine whether Goya Manufacturing Ltd. should continue to purchase the Pip or manufacture it in-house.

b) Indicate the level of production required that would make Goya Manufacturing Ltd. decide in favour of manufacturing the Pip itself.

Shutdown problems

Shutdown problems involve the following types of decisions:

a) Whether or not to close down a factory, department, product line or other activity, either because it is making losses or because it is too expensive to run.
b) If the decision is to shut down, whether the closure should be permanent or temporary. Shutdown decisions often involve long term considerations, and capital expenditures and revenues.
c) A shutdown should result in savings in annual operating costs for a number of years in the future.
d) Closure results in release of some fixed assets for sale. Some assets might have a small scrap value, but others, e.g. property, might have a substantial sale value.
e) Employees affected by the closure must be made redundant or relocated, perhaps even offered early retirement. There will be lump sums payments involved which must be taken into consideration. For example, suppose closure of a regional office results in annual savings of $100,000, fixed assets sold off for $2 million, but redundancy payments would be $3 million. The shutdown decision would involve an assessment of the net capital cost of closure ($1 million) against the annual benefits ($100,000 per annum).

It is possible for shutdown problems to be simplified into short run decisions, by making one of the following assumptions

a) Fixed asset sales and redundancy costs would be negligible.
b) Income from fixed asset sales would match redundancy costs and so these items would be self-cancelling.

In these circumstances the financial aspects of shutdown decisions would be based on short run relevant costs.

Now attempt exercise 5.4.

Exercise 5.4 Adding or deleting products

Brass Ltd. manufactures three products, Swans, Ducks and Chicks. The present net annual income from each item is as follows:

	Swans	Ducks	Chicks	Total
	$	$	$	$
Sales	50,000	40,000	60,000	150,000
Variable costs	30,000	25,000	35,000	90,000
Contribution	20,000	15,000	25,000	60,000
Fixed costs	17,000	18,000	20,000	55,000
Profit/(loss)	3,000	(3,000)	5,000	5,000

Brass Ltd. is concerned about its poor profit performance, and is considering whether or not to cease selling Ducks. It is felt that selling prices cannot be increased or lowered without adversely affecting net income. $5,000 of the fixed costs of Ducks are direct fixed costs which would be saved if production ceased. All other fixed costs will remain the same.

a) Advise Brass Ltd. whether or not to cease production of Ducks.
b) Suppose, however, it were possible to use the resources realised by stopping production of Ducks, and switch to produce a new item, Eagles, which would sell for $50,000 and incur variable costs of $30,000 and extra fixed costs of $6,000. What will the new decision be?

Key terms

Breakeven analysis
Contribution/sales ratio
Cost-volume-profit analysis
Decision making
Make or buy decisions
Opportunity costs
Profit-volume charts
Relevant costs
Shutdown

Unit 6 - Investment decisions - Capital budgeting

Unit objectives

This unit is intended to provide:

- An understanding of the importance of capital budgeting in marketing decision making
- An explanation of the different types of investment project
- An introduction to the economic evaluation of investment proposals
- The importance of the concept and calculation of net present value and internal rate of return in decision making
- The advantages and disadvantages of the payback method as a technique for initial screening of two or more competing projects.

Capital budgeting is vital in marketing decisions. Decisions on investment, which take time to mature, have to be based on the returns which that investment will make. Unless the project is for social reasons only, if the investment is unprofitable in the long run, it is unwise to invest in it now.

Often, it would be good to know what the present value of the future investment is, or how long it will take to mature (give returns). It could be much more profitable putting the planned investment money in the bank and earning interest, or investing in an alternative project.

Typical investment decisions include the decision to build another grain silo, cotton gin or cold store or invest in a new distribution depot. At a lower level, marketers may wish to evaluate whether to spend more on advertising or increase the sales force, although it is difficult to measure the sales to advertising ratio.

Structure of the unit

Capital budgeting is very obviously a vital activity in business. Vast sums of money can be easily wasted if the investment turns out to be wrong or uneconomic. The subject matter is difficult to grasp by nature of the topic covered and also because of the mathematical content involved. However, it seeks to build on the concept of the future value of money which may be spent now. It does this by examining the techniques of net present value, internal rate of return and annuities. The timing of cash flows are important in new investment decisions and so the unit looks at this "payback" concept. One problem which plagues developing countries is "inflation rates" which can, in some cases, exceed 100% per annum. The unit ends by showing how marketers can take this in to account.

Capital budgeting versus current expenditures

A capital investment project can be distinguished from current expenditures by two features:

a) such projects are relatively large
b) a significant period of time (more than one year) elapses between the investment outlay and the receipt of the benefits..

As a result, most medium-sized and large organisations have developed special procedures and methods for dealing with these decisions. A systematic approach to capital budgeting implies:

a) the formulation of long-term goals
b) the creative search for and identification of new investment opportunities
c) classification of projects and recognition of economically and/or statistically dependent proposals
d) the estimation and forecasting of current and future cash flows
e) a suitable administrative framework capable of transferring the required information to the decision level
f) the controlling of expenditures and careful monitoring of crucial aspects of project execution
g) a set of decision rules which can differentiate acceptable from unacceptable alternatives is required.

The last point (g) is crucial and this is the subject of later sections of the unit.

The classification of investment projects

a) By project size

Small projects may be approved by departmental managers. More careful analysis and Board of Directors' approval is needed for large projects of, say, half a million dollars or more.

b) By type of benefit to the firm

- an increase in cash flow
- a decrease in risk
- an indirect benefit (showers for workers, etc).

c) By degree of dependence

- mutually exclusive projects (can execute project A or B, but not both)
- complementary projects: taking project A increases the cash flow of project B.
- substitute projects: taking project A decreases the cash flow of project B.

d) By degree of statistical dependence

- Positive dependence
- Negative dependence
- Statistical independence.

e) By type of cash flow

- Conventional cash flow: only one change in the cash flow sign

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e.g. -/++++ or +/----, etc

- Non-conventional cash flows: more than one change in the cash flow sign,

e.g. +/-/+++ or -/+/-/++++, etc.

The economic evaluation of investment proposals

The analysis stipulates a decision rule for:

I) accepting or
II) rejecting

investment projects

The time value of money

Recall that the interaction of lenders with borrowers sets an equilibrium rate of interest. Borrowing is only worthwhile if the return on the loan exceeds the cost of the borrowed funds. Lending is only worthwhile if the return is at least equal to that which can be obtained from alternative opportunities in the same risk class.

The interest rate received by the lender is made up of:

i) The time value of money: the receipt of money is preferred sooner rather than later. Money can be used to earn more money. The earlier the money is received, the greater the potential for increasing wealth. Thus, to forego the use of money, you must get some compensation.

ii) The risk of the capital sum not being repaid. This uncertainty requires a premium as a hedge against the risk, hence the return must be commensurate with the risk being undertaken.

iii) Inflation: money may lose its purchasing power over time. The lender must be compensated for the declining spending/purchasing power of money. If the lender receives no compensation, he/she will be worse off when the loan is repaid than at the time of lending the money.

a) Future values/compound interest

Future value (FV) is the value in dollars at some point in the future of one or more investments.

FV consists of:

i) the original sum of money invested, and
ii) the return in the form of interest.

The general formula for computing Future Value is as follows:

$$FV_n = V_o (1 + r)^n$$

where

V_o is the initial sum invested
r is the interest rate
n is the number of periods for which the investment is to receive interest.

Thus we can compute the future value of what V_o will accumulate to in n years when it is compounded annually at the same rate of r by using the above formula.

Now attempt exercise 6.1.

Exercise 6.1 Future values/compound interest

i) What is the future value of $10 invested at 10% at the end of 1 year?
ii) What is the future value of $10 invested at 10% at the end of 5 years?

We can derive the Present Value (PV) by using the formula:

$$FV_n = V_o (1 + r)^n$$

By denoting V_o by PV we obtain:

$$FV_n = PV (1 + r)^n$$

by dividing both sides of the formula by $(1 + r)^n$ we derive:

$$PV = \frac{FV_n}{(1+r)^n}$$

Rationale for the formula:

As you will see from the following exercise, given the alternative of earning 10% on his money, an individual (or firm) should never offer (invest) more than $10.00 to obtain $11.00 with certainty at the end of the year.

Now attempt exercise 6.2

Exercise 6.2 Present value

i) What is the present value of $11.00 at the end of one year?
ii) What is the PV of $16.10 at the end of 5 years?

b) Net present value (NPV)

The NPV method is used for evaluating the desirability of investments or projects.

$$NPV = \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \frac{C_3}{(1+r)^3} + \ldots + \frac{C_n \ldots I_o}{(1+r)^n}$$

$$NPV = \sum_{t=1}^{n} \frac{C_t}{(1+r)^t} - I_o$$

where:

C_t = the net cash receipt at the end of year t
I_o = the initial investment outlay
r = the discount rate/the required minimum rate of return on investment
n = the project/investment's duration in years.

The discount factor r can be calculated using:

$$q(t,i) = \frac{1}{(1+i)^t}$$

Examples:

$$q(1,10\%) = \frac{1}{1.1} = 0.9091$$

$$q(2,10\%) = \frac{1}{(1.1)^2} = 0.8264$$

$$q(3,10\%) = \frac{1}{(1.1)^3} = 0.7513$$

N.B. At this point the tutor should introduce the net present value tables from any recognised published source. Do that now.

Decision rule:

If NPV is positive (+): *accept the project*
If NPV is negative(-): *reject the project*

Now attempt exercise 6.3.

Exercise 6.3 Net present value

A firm intends to invest $1,000 in a project that generated net receipts of $800, $900 and $600 in the first, second and third years respectively. Should the firm go ahead with the project?

Attempt the calculation without reference to net present value tables first.

c) Annuities

N.B. Introduce students to annuity tables from any recognized published source.

A set of cash flows that are equal in each and every period is called an annuity.

Example:

Year	Cash Flow ($)
0	-800
1	400
2	400
3	400

PV = $400(0.9091) + $400(0.8264) + $400(0.7513)
= $363.64 + $330.56 + $300.52
= $994.72
NPV = $994.72 - $800.00
= $194.72

Alternatively,

PV of an annuity = $400 (PVFAt.i) (3,0,10)
= $400 (0.9091 + 0.8264 + 0.7513)
= $400 x 2.4868
= $994.72
NPV = $994.72 - $800.00
= $194.72

d) Perpetuities

A perpetuity is an annuity with an infinite life. It is an equal sum of money to be paid in each period forever.

$$\text{PV of a perpetuity} = \frac{C}{r}$$

where:

C is the sum to be received per period
r is the discount rate or interest rate

Example:

You are promised a perpetuity of $700 per year at a rate of interest of 15% per annum. What price (PV) should you be willing to pay for this income?

$$PV = \frac{\$700}{015}$$
$$= \$4,666.67$$

A perpetuity with growth:

Suppose that the $700 annual income most recently received is expected to grow by a rate G of 5% per year (compounded) forever. How much would this income be worth when discounted at 15%?

Solution:

Subtract the growth rate from the discount rate and treat the first period's cash flow as a perpetuity.

$$PV = \frac{C(1+G)}{R-G}$$
$$= \frac{\$700(1+0.05)}{0.15-0.05}$$
$$= \frac{\$700(1.05)}{0.10}$$
$$= \$735/0.10$$
$$= \underline{\$7,350}$$

e) The internal rate of return (IRR)

Refer students to the tables in any recognized published source.

- The IRR is the discount rate at which the NPV for a project equals zero. This rate means that the present value of the cash inflows for the project would equal the present value of its outflows.
- The IRR is the break-even discount rate.
- The IRR is found by trial and error.

$$\sum_{t=1}^{n} \frac{C_t}{(1+r)^t} - I_o = 0 \quad \text{where } r = IRR$$

IRR of an annuity:

$$Q(n,r) = \frac{I_o}{C}$$

where:

Q (n,r) is the discount factor
I_o is the initial outlay
C is the uniform annual receipt ($C_1 = C_2 = ... = C_n$).

Example:

What is the IRR of an equal annual income of $20 per annum which accrues for 7 years and costs $120?

$$Q(7,r) = \frac{\$120}{20}$$
$$= 6$$

From the tables = 4%

Economic rationale for IRR:

If IRR exceeds cost of capital, project is worthwhile, i.e. it is profitable to undertake.
Now attempt exercise 6.4

Exercise 6.4 Internal rate of return

Find the IRR of this project for a firm with a 20% cost of capital:

YEAR	CASH FLOW
	$
0	-10,000
1	8,000
2	6,000

a) Try 20%
b) Try 27%
c) Try 29%

Net present value vs internal rate of return

Independent vs dependent projects

NPV and IRR methods are closely related because:

i) both are time-adjusted measures of profitability, and
ii) their mathematical formulas are almost identical.

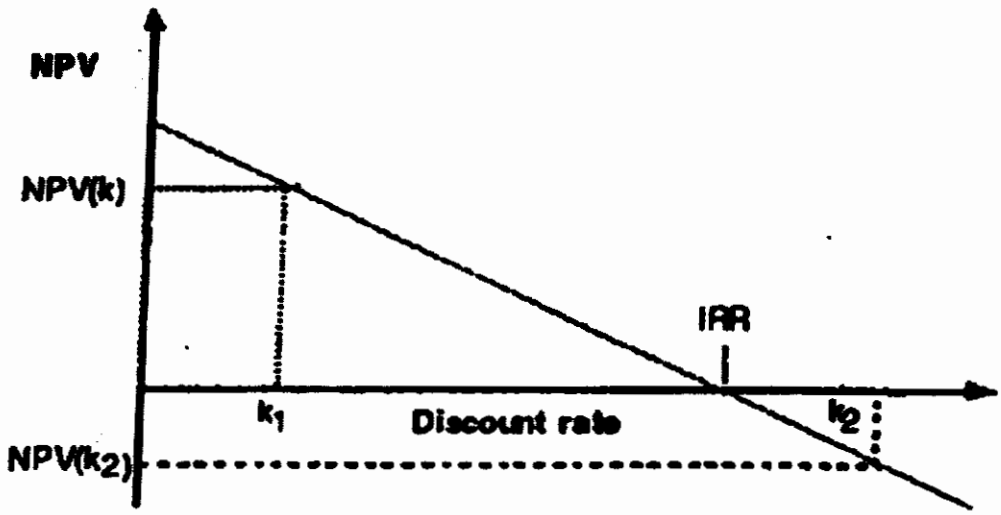
So, which method leads to an optimal decision: IRR or NPV?

a) NPV vs IRR: Independent projects

Independent project: Selecting one project does not preclude the choosing of the other.

With conventional cash flows (-|+|+) no conflict in decision arises; in this case both NPV and IRR lead to the same accept/reject decisions.

Figure 6.1 NPV vs IRR Independent projects



If cash flows are discounted at k_1, NPV is positive and IRR > k_1: accept project.

If cash flows are discounted at k_2, NPV is negative and IRR < k_2: reject the project.

Mathematical proof: for a project to be acceptable, the NPV must be positive, i.e.

$$\sum_{t=1}^{n} \frac{C_t}{(I+k)^t} - I_o > 0 \text{ or } \sum_{t=1}^{n} \frac{C_t}{(I+k)^t} - I_o > I_o$$

Similarly for the same project to be acceptable:

$$\sum_{t=1}^{n} \frac{C_t}{(I+R)^t} = I_o$$

where **R** is the IRR.

Since the numerators C_t are identical and positive in both instances:

- implicitly/intuitively R must be greater than k (R > k);
- If NPV = 0 then R = k: the company is indifferent to such a project;
- Hence, IRR and NPV lead to the same decision in this case.

b) NPV vs IRR: Dependent projects

NPV clashes with IRR where mutually exclusive projects exist.

Example:

Agritex is considering building either a one-storey (Project A) or five-storey (Project B) block of offices on a prime site. The following information is available:

	Initial Investment Outlay	Net Inflow at the Year End
Project A	-9,500	11,500
Project B	-15,000	18,000

Assume k = 10%, which project should Agritex undertake?

$$NPV_A = \frac{\$11,500}{1.1} - \$9,500$$

$$= \underline{\$954.55}$$

$$NPV_B = \frac{\$18,000}{1.1} - \$15,000$$

$$= \underline{\$1,363.64}$$

Both projects are of one-year duration:

$$\frac{\$11,500}{1+R_A} = \$9,500$$

IRR_A:

$$\$11,500 = \$9,500\ (1 + R_A)$$

$$\frac{\$11,500}{\$9,500} = 1 + R_A$$

$$R_A = \frac{\$11{,}500}{\$9{,}500} - 1$$

= 1.21-1

therefore IRR_A = 21%

IRR_B: $\frac{\$18{,}000}{1+R_B} = \$15{,}000$

$\$18{,}000 = \$15{,}000(1 + R_B)$

$$R_B = \frac{\$18{,}000}{\$15{,}000} - 1$$

= 1.2-1

therefore IRR_B = 20%

Decision:

Assuming that k = 10%, both projects are acceptable because:

NPV_A and NPV_B are both positive

$IRR_A > k$ AND $IRR_B > k$

Which project is a "better option" for Agritex?

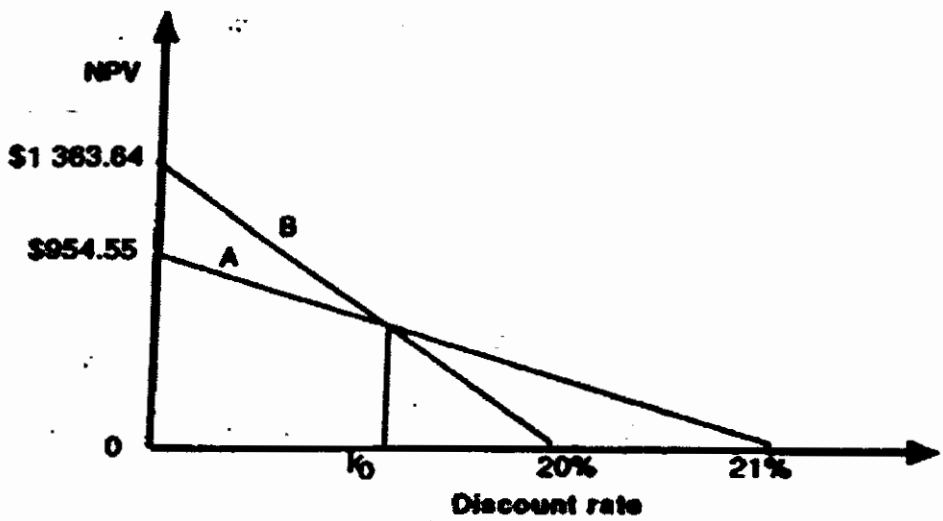
If we use the NPV method:

NPV_B ($1,363.64) > NPV_A ($954.55): Agritex should choose Project B.

If we use the IRR method:

IRR_A (21%) > IRR_B (20%): Agritex should choose Project A. See figure 6.2.

Figure 6.2 NPV vs IRR: Dependent projects



Up to a discount rate of k_o: project B is superior to project A, therefore project B is preferred to project A.

Beyond the point k_o: project A is superior to project B, therefore project A is preferred to project B

The two methods do not rank the projects the same.

Differences in the scale of investment

NPV and IRR may give conflicting decisions where projects differ in their scale of investment. Example:

Years	0	1	2	3
Project A	-2,500	1,500	1,500	1,500
Project B	-14,000	7,000	7,000	7,000

Assume k= 10%.

NPV_A = \$1,500 x PVFA at 10% for 3 years
= \$1,500 x 2.487 = \$3,730.50 - \$2,500.00 = = \$1,230.50.

NPV_B == \$7,000 x PVFA at 10% for 3 years
= \$7,000 x 2.487 = \$17,409 - \$14,000 = \$3,409.00.

$$IRR_A = \frac{I_o}{C_t} = \frac{\$2,500}{\$1,500} = 1.67.$$

Therefore IRR_A = 36% (from the tables)

$$IRR_B = \frac{I_o}{C_t} = \frac{\$14,000}{\$7,000} = 2.0$$

Therefore IRR_B = 21%

Decision:

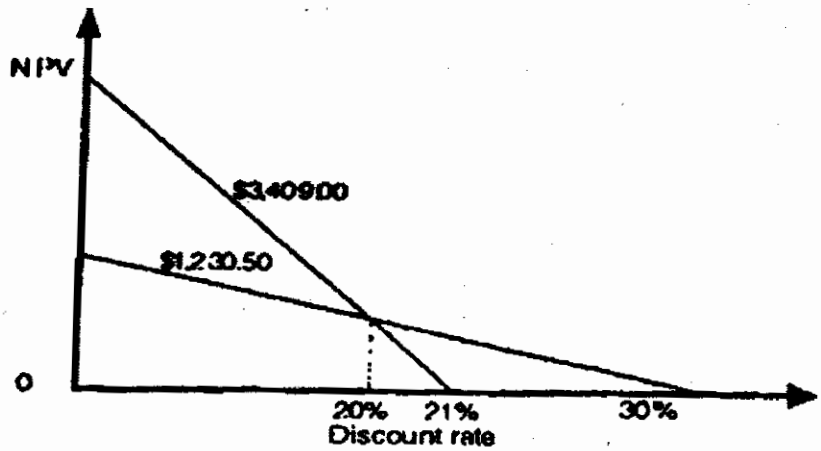
Conflicting, as:

- NPV prefers B to A
- IRR prefers A to B

	NPV	IRR
Project A	\$ 3,730.50	36%
Project B	\$17,400.00	21%

See figure 6.3.

Figure 6.3 Scale of investments



To show why:

i) the NPV prefers B, the larger project, for a discount rate below 20%

ii) the NPV is superior to the IRR

a) Use the incremental cash flow approach, "B minus A" approach
b) Choosing project B is tantamount to choosing a hypothetical project "B minus A".

	0	1	2	3
Project B	- 14,000	7,000	7,000	7,000
Project A	- 2,500	1,500	1,500	1,500
"B minus A"	- 11,500	5,500	5,500	5,500

$$IRR_{\text{"B Minus A"}} = \frac{\$11,500}{\$5,500} = 2.09 = \underline{20\%}$$

c) Choosing B is equivalent to: A + (B - A) = B

d) Choosing the bigger project B means choosing the smaller project A plus an additional outlay of $11,500 of which $5,500 will be realised each year for the next 3 years.

e) The $IRR_{\text{"B minus A"}}$ on the incremental cash flow is 20%.

f) Given k of 10%, this is a profitable opportunity, therefore must be accepted.

g) But, if k were greater than the IRR (20%) on the incremental CF, then reject project.

h) At the point of intersection,

$NPV_A = NPV_B$ or $NPV_A - NPV_B = 0$, i.e. indifferent to projects A and B.

i) If k = 20% (IRR of "B - A") the company should accept project A.

- This justifies the use of NPV criterion.

Advantage of NPV:

- It ensures that the firm reaches an optimal scale of investment.

Disadvantage of IRR:

- It expresses the return in a percentage form rather than in terms of absolute dollar returns, e.g. the IRR will prefer 500% of $1 to 20% return on $100. However, most companies set their goals in absolute terms and not in % terms, e.g. target sales figure of $2.5 million.

The timing of the cash flow

The IRR may give conflicting decisions where the timing of cash flows varies between the 2 projects.

Note that initial outlay I_o is the same.

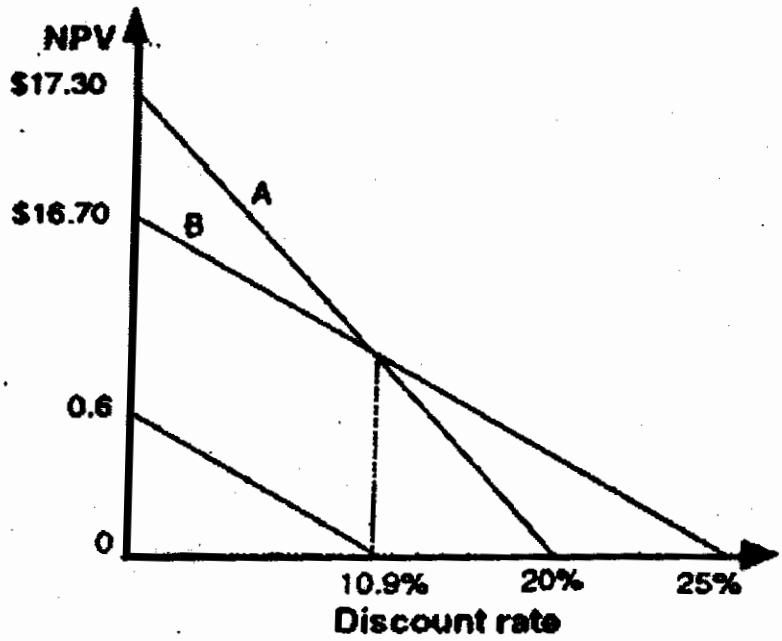
	0	1	2
Project A	- 100	20	125.00
Project B	- 100	100	31.25
"A minus B"	0	- 80	88.15

Assume k = 10%

	NPV	IRR
Project A	17.3	20.0%
Project B	16.7	25.0%
"A minus B"	0.6	10.9%

IRR prefers B to A even though both projects have identical initial outlays. So, the decision is to accept A, that is B + (A - B) = A. See figure 6.4.

Figure 6.4 Timing of the cash flow



The horizon problem

NPV and IRR rankings are contradictory. Project A earns $120 at the end of the first year while project B earns $174 at the end of the fourth year.

	0	1	2	3	4
Project A	-100	120	-	-	-
Project B	-100	-	-	-	174

Assume k = 10%

	NPV	IRR
Project A	9	20%
Project B	19	15%

Decision:

NPV prefers B to A
IRR prefers A to B.

The profitability index - PI

This is a variant of the NPV method.

$$PI = \frac{PV}{I_o}$$

Decision rule:

PI > 1; accept the project
PI < 1; reject the project

If NPV = 0, we have:

$NPV = PV - I_o = 0$
$PV = I_o$

Dividing both sides by I_o we get:

$$\frac{PV}{I_o} > 1$$

PI of 1.2 means that the project's profitability is 20%. Example:

	PV of CF	I_o	PI
Project A	100	50	2.0
Project B	1,500	1,000	1.5

Decision:

Choose option B because it maximises the firm's profitability by $1,500.

Disadvantage of PI:

Like IRR it is a percentage and therefore ignores the scale of investment.

The payback period (PP)

The CIMA defines payback as 'the time it takes the cash inflows from a capital investment project to equal the cash outflows, usually expressed in years'. When deciding between two or more competing projects, the usual decision is to accept the one with the shortest payback.

Payback is often used as a "first screening method". By this, we mean that when a capital investment project is being considered, the first question to ask is: 'How long will it take to pay back its cost?' The company might have a target payback, and so it would reject a capital project unless its payback period were less than a certain number of years.

Example 1:

Years	0	1	2	3	4	5
Project A	1,000,000	250,000	250,000	250,000	250,000	250,000

For a project with equal annual receipts:

$$PP = \frac{I_o}{C_t} = \frac{\$1,000,000}{\$250,000} = \underline{4 \text{ years}}$$

Example 2:

Years	0	1	2	3	4
Project B	- 10,000	5,000	2,500	4,000	1,000

Payback period lies between year 2 and year 3. Sum of money recovered by the end of the second year

= $7,500, i.e. ($5,000 + $2,500)

Sum of money to be recovered by end of 3rd year

= $10,000 - $7,500 = $\underline{\$2,500}$

$$\text{Payback period} = \left(2 + \frac{\$2,500}{\$4,000}\right) years$$

= <u>2.625 years</u>

Disadvantages of the payback method:

- It ignores the timing of cash flows within the payback period, the cash flows after the end of payback period and therefore the total project return.
- It ignores the time value of money. This means that it does not take into account the fact that $1 today is worth more than $1 in one year's time. An investor who has $1 today can either consume it immediately or alternatively can invest it at the prevailing interest rate, say 30%, to get a return of $1.30 in a year's time.
- It is unable to distinguish between projects with the same payback period.
- It may lead to excessive investment in short-term projects.

Advantages of the payback method:

- Payback can be important: long payback means capital tied up and high investment risk. The method also has the advantage that it involves a quick, simple calculation and an easily understood concept.

The accounting rate of return - (ARR)

The ARR method (also called the return on capital employed (ROCE) or the return on investment (ROI) method) of appraising a capital project is to estimate the accounting rate of return that the project should yield. If it exceeds a target rate of return, the project will be undertaken.

$$\text{ARR on total investment} = \frac{\text{Net Annual Profit}}{\text{Investment Outlay}} \text{ or } \left[Rt + \frac{(C-D)}{I_o} \right]$$

Note that net annual profit excludes depreciation.

Example:

A project has an initial outlay of $1 million and generates net receipts of $250,000 for 10 years.

Assuming straight-line depreciation of $100,000 per year:

$$\text{the RR on total investment} = \frac{\$250{,}000 - \$100{,}000}{1{,}000{,}000} = \underline{15\%}$$

$$\text{ARR on total investment} = \frac{\text{Net Annual Profit}}{\text{Investment Outlay}/2} \text{ or } \left[R_a + \frac{(C-D)}{I_o/2} \right]$$

$$= \frac{\$250{,}000 - \$100{,}000}{\$1{,}000{,}000 \div 2} = \frac{\$150{,}000}{\$500{,}000} = \underline{30\%}$$

Disadvantages:

- It does not take account of the timing of the profits from an investment.
- It implicitly assumes stable cash receipts over time.
- It is based on accounting profits and not cash flows. Accounting profits are subject to a number of different accounting treatments.
- It is a relative measure rather than an absolute measure and hence takes no account of the size of the investment.
- It takes no account of the length of the project.
- it ignores the time value of money.

The payback and ARR methods in practice

Despite the limitations of the payback method, it is the method most widely used in practice. There are a number of reasons for this:

- It is a particularly useful approach for ranking projects where a firm faces liquidity constraints and requires fast repayment of investments.

- It is appropriate in situations where risky investments are made in uncertain markets that are subject to fast design and product changes or where future cash flows are particularly difficult to predict.
- The method is often used in conjunction with NPV or IRR method and acts as a first screening device to identify projects which are worthy of further investigation.
- it is easily understood by all levels of management.
- It provides an important summary method: how quickly will the initial investment be recouped?

Now attempt exercise 6.5.

Exercise 6.5 Payback and ARR

Delta Corporation is considering two capital expenditure proposals. Both proposals are for similar products and both are expected to operate for four years. Only one proposal can be accepted.

The following information is available:

	Profit/(loss)	
	Proposal A	Proposal B
	$	$
Initial investment	46,000	46,000
Year 1	6,500	4,500
Year 2	3,500	2,500
Year 3	13,500	4,500
Year 4	Loss 1,500	Profit 14,500
Estimated scrap value at the end of Year 4	4,000	4,000

Depreciation is charged on the straight line basis. Problem:

a) Calculate the following for both proposals:

i) the payback period to one decimal place
ii) the average rate of return on initial investment, to one decimal place.

Allowing for inflation

So far, the effect of inflation has not been considered on the appraisal of capital investment proposals. Inflation is particularly important in developing countries as the rate of inflation tends to be rather high. As inflation rate increases, so will the minimum return required by an investor. For example, one might be happy with a return of 10% with zero inflation, but if inflation was 20%, one would expect a much greater return.

Example:

Keymer Farm is considering investing in a project with the following cash flows:

TIME	ACTUAL CASH FLOWS Z$
0	(100,000)
1	90,000
2	80,000
3	70,000

Keymer Farm requires a minimum return of 40% under the present conditions. Inflation is currently running at 30% a year, and this is expected to continue indefinitely. Should Keymer Farm go ahead with the project?

Let us take a look at Keymer Farm's required rate of return. If it invested $10,000 for one year on 1 January, then on 31 December it would require a minimum return of $4,000. With the initial investment of $10,000, the total value of the investment by 31 December must increase to $14,000. During the year, the purchasing value of the dollar would fall due to inflation. We can restate the amount received on 31 December in terms of the purchasing power of the dollar at 1 January as follows:

Amount received on 31 December in terms of the value of the dollar at 1 January:

$$= \frac{\$14,000}{(1.30)^1} = \underline{\$10,769}$$

In terms of the value of the dollar at 1 January, Keymer Farm would make a profit of $769 which represents a rate of return of 7.69% in "today's money" terms. This is known as the real rate of return. The required rate of 40% is a money rate of return (sometimes known as a nominal rate of return). The money rate measures the return in terms of the dollar, which is falling in value. The real rate measures the return in constant price level terms.

The two rates of return and the inflation rate are linked by the equation:

$$(1 + \text{money rate}) = (1 + \text{real rate}) \times (1 + \text{inflation rate})$$

where all the rates are expressed as proportions.

In the example,

$$(1 + 0.40) = (1 + 0.0769) \times (1 + 0.3) = \underline{1.40}$$

So, which rate is used in discounting? As a rule of thumb:

a) If the cash flows are expressed in terms of actual dollars that will be received or paid in the future, the money rate for discounting should be used.

b) If the cash flows are expressed in terms of the value of the dollar at time 0 (i.e. in constant price level terms), the real rate of discounting should be used.

In Keymer Farm's case, the cash flows are expressed in terms of the actual dollars that will be received or paid at the relevant dates. Therefore, we should discount them using the money rate of return.

TIME	CASH FLOW	DISCOUNT FACTOR	PV
	$	40%	$
0	(150,000)	1.000	(100,000)
1	90,000	0.714	64,260
2	80,000	0.510	40,800
3	70,000	0.364	25,480
			30,540

The project has a positive net present value of $30,540, so Keymer Farm should go ahead with the project.

The future cash flows can be re-expressed in terms of the value of the dollar at time 0 as follows, given inflation at 30% a year:

TIME	ACTUAL CASH FLOW	CASH FLOW AT TIME 0 PRICE LEVEL	
	$		$
0	(100,000)	(100,000)	
1	90,000	$90{,}000 \times \frac{1}{(1.30)^1} =$	69,231
2	80,000	$80{,}000 \times \frac{1}{(1.30)^2} =$	47,337
3	70,000	$70{,}000 \times \frac{1}{(1.30)^3} =$	31,862

The cash flows expressed in terms of the value of the dollar at time 0 can now be discounted using the real value of 7.69%.

TIME	CASH FLOW	DISCOUNT FACTOR	PV
	$	7.69%	$
0	(100,000)	1.000	(100,000)
1	69,231	$\frac{1}{(1.0769)^1}$	64,246
2	47,337	$\frac{1}{(1.0769)^2}$	40,804
3	31,862	$\frac{1}{(1.0769)^3}$	25,490
			30,540

The NPV is the same as before.

Expectations of inflation and the effects of inflation

When a manager evaluates a project, or when a shareholder evaluates his/her investments, he/she can only guess what the rate of inflation will be. These guesses will probably be wrong, at least to some extent, as it is extremely difficult to forecast the rate of inflation accurately. The only way in which uncertainty about inflation can be allowed for in project evaluation is by risk and uncertainty analysis.

Inflation may be *general*, that is, affecting prices of all kinds, or *specific* to particular prices. Generalised inflation has the following effects:

a) Inflation will mean higher costs and higher selling prices. It is difficult to predict the effect of higher selling prices on demand. A company that raises its prices by 30%, because the general rate of inflation is 30%, might suffer a serious fall in demand.
b) Inflation, as it affects financing needs, is also going to affect gearing, and so the cost of capital.
c) Since fixed assets and stocks will increase in money value, the same quantities of assets must be financed by increasing amounts of capital. If the future rate of inflation can be predicted with some degree of accuracy, management can work out how much extra finance the company will need and take steps to obtain it, e.g. by increasing retention of earnings, or borrowing.

However, if the future rate of inflation cannot be predicted with a certain amount of accuracy, then management should estimate what it will be and make plans to obtain the extra finance accordingly. Provisions should also be made to have access to 'contingency funds' should the rate of inflation exceed expectations, e.g. a higher bank overdraft facility might be arranged should the need arise.

Many different proposals have been made for accounting for inflation. Two systems known as "Current purchasing power" (CPP) and "Current cost accounting" (CCA) have been suggested.

CPP is a system of accounting which makes adjustments to income and capital values to allow for the general rate of price inflation.

CCA is a system which takes account of specific price inflation (i.e. changes in the prices of specific assets or groups of assets), but not of general price inflation. It involves adjusting accounts to reflect the current values of assets owned and used.

At present, there is very little measure of agreement as to the best approach to the problem of 'accounting for inflation'. Both these approaches are still being debated by the accountancy bodies.

Now attempt exercise 6.6.

Exercise 6.6 Inflation

TA Holdings is considering whether to invest in a new product with a product life of four years. The cost of the fixed asset investment would be $3,000,000 in total, with $1,500,000 payable at once and the rest after one year. A further investment of $600,000 in working capital would be required.

The management of TA Holdings expect all their investments to justify themselves financially within four years, after which the fixed asset is expected to be sold for $600,000.

The new venture will incur fixed costs of $1,040,000 in the first year, including depreciation of $400,000. These costs, excluding depreciation, are expected to rise by 10% each year because of inflation. The unit selling price and unit variable cost are $24 and $12 respectively in the first year and expected yearly increases because of inflation are 8% and 14% respectively. Annual sales are estimated to be 175,000 units.

TA Holdings money cost of capital is 28%.

Is the product worth investing in?

Key terms

Accounting rate of return
Annuities
Capital budgeting
Cash flow
Classification of investment projects
Compound interest
Current cost accounting (CCA)
Current purchasing power (CPP)
Dependent projects
Independent projects
Inflation
Interest rate
Internal rate of return
Investment decision
Net present value
Payback period
Perpetuity
Present value
Rates of return
The time value of money

Unit 7 - Sources of finance

Unit objectives

This unit is intended to provide:

- An introduction to the different sources of finance available to management, both internal and external
- An overview of the advantages and disadvantages of the different sources of funds
- An understanding of the factors governing the choice between different sources of funds.

Sourcing money may be done for a variety of reasons. Traditional areas of need may be for capital asset acquirement - new machinery or the construction of a new building or depot. The development of new products can be enormously costly and here again capital may be required. Normally; such developments are financed internally, whereas capital for the acquisition of machinery may come from external sources. In this day and age of tight liquidity, many organizations have to look for short-term capital in the way of overdraft or loans in order to provide a cash flow cushion. Interest rates can vary from organization to organization and also according to purpose.

Structure of the unit

This final unit starts by looking at the various forms of "shares" as a means to raise new capital and retained earnings as another source. However, whilst these may be "traditional" ways of raising funds, they are by no means the only ones. There are many more sources available to companies who do not wish to become "public" by means of share issues. These alternatives include bank borrowing, government assistance, venture capital and franchising. All have their own advantages and disadvantages and degrees of risk attached.

Sources of funds

A company might raise new funds from the following sources:

- The capital markets:

  i) new share issues, for example, by companies acquiring a stock market listing for the first time

  ii) rights issues

- Loan stock
- Retained earnings
- Bank borrowing
- Government sources
- Business expansion scheme funds
- Venture capital
- Franchising.

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Ordinary (equity) shares

Ordinary shares are issued to the owners of a company. They have a nominal or 'face' value, typically of $1 or 50 cents. The market value of a quoted company's shares bears no relationship to their nominal value, except that when ordinary shares are issued for cash, the issue price must be equal to or be more than the nominal value of the shares.

Deferred ordinary shares

are a form of ordinary shares, which are entitled to a dividend only after a certain date or if profits rise above a certain amount. Voting rights might also differ from those attached to other ordinary shares.

Ordinary shareholders put funds into their company:

a) by paying for a new issue of shares
b) through retained profits.

Simply retaining profits, instead of paying them out in the form of dividends, offers an important, simple low-cost source of finance; although this method may not provide enough funds, for example, if the firm is seeking to grow.

A new issue of shares might be made in a variety of different circumstances:

a) The company might want to raise more cash. If it issues ordinary shares for cash, should the shares be issued pro rata to existing shareholders, so that control or ownership of the company is not affected? If, for example, a company with 200,000 ordinary shares in issue decides to issue 50,000 new shares to raise cash, should it offer the new shares to existing shareholders, or should it sell them to new shareholders instead?

   i) If a company sells the new shares to existing shareholders in proportion to their existing shareholding in the company, we have a *rights issue.* In the example above, the 50,000 shares would be issued as a one-in-four rights issue, by offering shareholders one new share for every four shares they currently hold.

   ii) If the number of new shares being issued is small compared to the number of shares already in issue, it might be decided instead to sell them to new shareholders, since ownership of the company would only be minimally affected.

b) The company might want to issue shares partly to raise cash, but more importantly to float' its shares on a stick exchange.

c) The company might issue new shares to the shareholders of another company, in order to take it over.

New shares issues

A company seeking to obtain additional equity funds may be:

a) an unquoted company wishing to obtain a Stock Exchange quotation

b) an unquoted company wishing to issue new shares, but without obtaining a Stock Exchange quotation

c) a company which is already listed on the Stock Exchange wishing to issue additional new shares.

The methods by which an unquoted company can obtain a quotation on the stock market are:

a) an offer for sale
b) a prospectus issue
c) a placing
d) an introduction.

Offers for sale:

An offer for sale is a means of selling the shares of a company to the public.

a) An unquoted company may issue shares, and then sell them on the Stock Exchange, to raise cash for the company. All the shares in the company, not just the new ones, would then become marketable.

b) Shareholders in an unquoted company may sell some of their existing shares to the general public. When this occurs, the company is not raising any new funds, but just providing a wider market for its existing shares (all of which would become marketable), and giving existing shareholders the chance to cash in some or all of their investment in their company.

When companies 'go public' for the first time, a 'large' issue will probably take the form of an offer for sale. A smaller issue is more likely to be a placing, since the amount to be raised can be obtained more cheaply if the issuing house or other sponsoring firm approaches selected institutional investors privately.

Rights issues

A rights issue provides a way of raising new share capital by means of an offer to existing shareholders, inviting them to subscribe cash for new shares in proportion to their existing holdings.

For example, a rights issue on a one-for-four basis at 280c per share would mean that a company is inviting its existing shareholders to subscribe for one new share for every four shares they hold, at a price of 280c per new share.

A company making a rights issue must set a price which is low enough to secure the acceptance of shareholders, who are being asked to provide extra funds, but not too low, so as to avoid excessive dilution of the earnings per share.

Preference shares

Preference shares have a fixed percentage dividend before any dividend is paid to the ordinary shareholders. As with ordinary shares a preference dividend can only be

paid if sufficient distributable profits are available, although with 'cumulative' preference shares the right to an unpaid dividend is carried forward to later years. The arrears of dividend on cumulative preference shares must be paid before any dividend is paid to the ordinary shareholders.

From the company's point of view, preference shares are advantageous in that:

- Dividends do not have to be paid in a year in which profits are poor, while this is not the case with interest payments on long term debt (loans or debentures).
- Since they do not carry voting rights, preference shares avoid diluting the control of existing shareholders while an issue of equity shares would not.
- Unless they are redeemable, issuing preference shares will lower the company's gearing. Redeemable preference shares are normally treated as debt when gearing is calculated.
- The issue of preference shares does not restrict the company's borrowing power, at least in the sense that preference share capital is not secured against assets in the business.
- The non-payment of dividend does not give the preference shareholders the right to appoint a receiver, a right which is normally given to debenture holders.

However, dividend payments on preference shares are not tax deductible in the way that interest payments on debt are. Furthermore, for preference shares to be attractive to investors, the level of payment needs to be higher than for interest on debt to compensate for the additional risks.

For the investor, preference shares are less attractive than loan stock because:

- they cannot be secured on the company's assets
- the dividend yield traditionally offered on preference dividends has been much too low to provide an attractive investment compared with the interest yields on loan stock in view of the additional risk involved.

Loan stock

Loan stock is long-term debt capital raised by a company for which interest is paid, usually half yearly and at a fixed rate. Holders of loan stock are therefore long-term creditors of the company.

Loan stock has a nominal value, which is the debt owed by the company, and interest is paid at a stated "coupon yield" on this amount. For example, if a company issues 10% loan stocky the coupon yield will be 10% of the nominal value of the stock, so that $100 of stock will receive $10 interest each year. The rate quoted is the gross rate, before tax.

Debentures are a form of loan stock, legally defined as the written acknowledgement of a debt incurred by a company, normally containing provisions about the payment of interest and the eventual repayment of capital.

Debentures with a floating rate of interest

These are debentures for which the coupon rate of interest can be changed by the issuer, in accordance with changes in market rates of interest. They may be attractive to both lenders and borrowers when interest rates are volatile.

Security

Loan stock and debentures will often be *secured*. Security may take the form of either a *fixed charge* or a *floating charge*.

a) **Fixed charge;** Security would be related to a specific asset or group of assets, typically land and buildings. The company would be unable to dispose of the asset without providing a substitute asset for security, or without the lender's consent.

b) **Floating charge;** With a floating charge on certain assets of the company (for example, stocks and debtors), the lender's security in the event of a default payment is whatever assets of the appropriate class the company then owns (provided that another lender does not have a prior charge on the assets). The company would be able, however, to dispose of its assets as it chose until a default took place. In the event of a default, the lender would probably appoint a receiver to run the company rather than lay claim to a particular asset.

The redemption of loan stock

Loan stock and debentures are usually redeemable. They are issued for a term of ten years or more, and perhaps 25 to 30 years. At the end of this period, they will "mature" and become redeemable (at par or possibly at a value above par).

Most redeemable stocks have an earliest and latest redemption date. For example, 18% Debenture Stock 2007/09 is redeemable, at any time between the earliest specified date (in 2007) and the latest date (in 2009). The issuing company can choose the date. The decision by a company when to redeem a debt will depend on:

a) how much cash is available to the company to repay the debt
b) the nominal rate of interest on the debt. If the debentures pay 18% nominal interest and the current rate of interest is lower, say 10%, the company may try to raise a new loan at 10% to redeem the debt which costs 18%. On the other hand, if current interest rates are 20%, the company is unlikely to redeem the debt until the latest date possible, because the debentures would be a cheap source of funds.

There is no guarantee that a company will be able to raise a new loan to pay off a maturing debt, and one item to look for in a company's balance sheet is the redemption date of current loans, to establish how much new finance is likely to be needed by the company, and when.

Mortgages are a specific type of secured loan. Companies place the title deeds of freehold or long leasehold property as security with an insurance company or mortgage broker and receive cash on loan, usually repayable over a specified period. Most organisations owning property which is unencumbered by any charge should be able to obtain a mortgage up to two thirds of the value of the property.

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As far as companies are concerned, debt capital is a potentially attractive source of finance because interest charges reduce the profits chargeable to corporation tax.

Retained earnings

For any company, the amount of earnings retained within the business has a direct impact on the amount of dividends. Profit re-invested as retained earnings is profit that could have been paid as a dividend. The major reasons for using retained earnings to finance new investments, rather than to pay higher dividends and then raise new equity for the new investments, are as follows:

a) The management of many companies believes that retained earnings are funds which do not cost anything, although this is not true. However, it is true that the use of retained earnings as a source of funds does not lead to a payment of cash.

b) The dividend policy of the company is in practice determined by the directors. From their standpoint, retained earnings are an attractive source of finance because investment projects can be undertaken without involving either the shareholders or any outsiders.

c) The use of retained earnings as opposed to new shares or debentures avoids issue costs.

d) The use of retained earnings avoids the possibility of a change in control resulting from an issue of new shares.

Another factor that may be of importance is the financial and taxation position of the company's shareholders. If, for example, because of taxation considerations, they would rather make a capital profit (which will only be taxed when shares are sold) than receive current income, then finance through retained earnings would be preferred to other methods.

A company must restrict its self-financing through retained profits because shareholders should be paid a reasonable dividend, in line with realistic expectations, even if the directors would rather keep the funds for re-investing. At the same time, a company that is looking for extra funds will not be expected by investors (such as banks) to pay generous dividends, nor over-generous salaries to owner-directors.

Bank lending

Borrowings from banks are an important source of finance to companies. Bank lending is still mainly short term, although medium-term lending is quite common these days.

Short term lending may be in the form of:

a) an overdraft, which a company should keep within a limit set by the bank. Interest is charged (at a variable rate) on the amount by which the company is overdrawn from day to day;
b) a short-term loan, for up to three years.

Medium-term loans are loans for a period of from three to ten years. The rate of interest charged on medium-term bank lending to large companies will be a set margin, with the size of the margin depending on the credit standing and riskiness of the borrower. A loan may have a fixed rate of interest or a variable interest rate, so that the rate of interest charged will be adjusted every three, six, nine or twelve months in line with recent movements in the Base Lending Rate.

Lending to smaller companies will be at a margin above the bank's base rate and at either a variable or fixed rate of interest. Lending on overdraft is always at a variable rate. A loan at a variable rate of interest is sometimes referred to as a *floating rate loan.* Longer-term bank loans will sometimes be available, usually for the purchase of property, where the loan takes the form of a mortgage. When a banker is asked by a business customer for a loan or overdraft facility, he will consider several factors, known commonly by the mnemonic **PARTS.**

- Purpose
- Amount
- Repayment
- Term
- Security

P	The purpose of the loan A loan request will be refused if the purpose of the loan is not acceptable to the bank.
A	The amount of the loan. The customer must state exactly how much he wants to borrow. The banker must verify, as far as he is able to do so, that the amount required to make the proposed investment has been estimated correctly.
R	How will the loan be repaid? Will the customer be able to obtain sufficient income to make the necessary repayments?
T	What would be the duration of the loan? Traditionally, banks have offered short-term loans and overdrafts, although medium-term loans are now quite common.
S	Does the loan require security? If so, is the proposed security adequate?

Leasing

A lease is an agreement between two parties, the "lessor" and the "lessee". The lessor owns a capital asset, but allows the lessee to use it. The lessee makes payments under the terms of the lease to the lessor, for a specified period of time.

Leasing is, therefore, a form of rental. Leased assets have usually been plant and machinery, cars and commercial vehicles, but might also be computers and office equipment. There are two basic forms of lease: "operating leases" and "finance leases".

Operating leases

Operating leases are rental agreements between the lessor and the lessee whereby:

a) the lessor supplies the equipment to the lessee

b) the lessor is responsible for servicing and maintaining the leased equipment

c) the period of the lease is fairly short, less than the economic life of the asset, so that at the end of the lease agreement, the lessor can either

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i) lease the equipment to someone else, and obtain a good rent for it, or
ii) sell the equipment secondhand.

Finance leases

Finance leases are lease agreements between the user of the leased asset (the lessee) and a provider of finance (the lessor) for most, or all, of the asset's expected useful life.

Suppose that a company decides to obtain a company car and finance the acquisition by means of a finance lease. A car dealer will supply the car. A finance house will agree to act as lessor in a finance leasing arrangement, and so will purchase the car from the dealer and lease it to the company. The company will take possession of the car from the car dealer, and make regular payments (monthly, quarterly, six monthly or annually) to the finance house under the terms of the lease.

Other important characteristics of a finance lease:

a) The lessee is responsible for the upkeep, servicing and maintenance of the asset. The lessor is not involved in this at all.

b) The lease has a primary period, which covers all or most of the economic life of the asset. At the end of the lease, the lessor would not be able to lease the asset to someone else, as the asset would be worn out. The lessor must, therefore, ensure that the lease payments during the primary period pay for the full cost of the asset as well as providing the lessor with a suitable return on his investment.

c) It is usual at the end of the primary lease period to allow the lessee to continue to lease the asset for an indefinite secondary period, in return for a very low nominal rent. Alternatively, the lessee might be allowed to sell the asset on the lessor's behalf (since the lessor is the owner) and to keep most of the sale proceeds, paying only a small percentage (perhaps 10%) to the lessor.

Why might leasing be popular

The attractions of leases to the supplier of the equipment, the lessee and the lessor are as follows:

- The supplier of the equipment is paid in full at the beginning. The equipment is sold to the lessor, and apart from obligations under guarantees or warranties, the supplier has no further financial concern about the asset.
- The lessor invests finance by purchasing assets from suppliers and makes a return out of the lease payments from the lessee. Provided that a lessor can find lessees willing to pay the amounts he wants to make his return, the lessor can make good profits. He will also get capital allowances on his purchase of the equipment.
- Leasing might be attractive to the lessee:

i) if the lessee does not have enough cash to pay for the asset, and would have difficulty obtaining a bank loan to buy it, and so has to rent it in one way or another if he is to have the use of it at all; or

ii) if finance leasing is cheaper than a bank loan. The cost of payments under a loan might exceed the cost of a lease.

Operating leases have further advantages:

- The leased equipment does not need to be shown in the lessee's published balance sheet, and so the lessee's balance sheet shows no increase in its gearing ratio.

- The equipment is leased for a shorter period than its expected useful life. In the case of high-technology equipment, if the equipment becomes out-of-date before the end of its expected life, the lessee does not have to keep on using it, and it is the lessor who must bear the risk of having to sell obsolete equipment secondhand.

The lessee will be able to deduct the lease payments in computing his taxable profits.

Hire purchase

Hire purchase is a form of instalment credit. Hire purchase is similar to leasing, with the exception that ownership of the goods passes to the hire purchase customer on payment of the final credit instalment, whereas a lessee never becomes the owner of the goods.

Hire purchase agreements usually involve a finance house.

i) The supplier sells the goods to the finance house.
ii) The supplier delivers the goods to the customer who will eventually purchase them.
iii) The hire purchase arrangement exists between the finance house and the customer.

The finance house will always insist that the hirer should pay a deposit towards the purchase price. The size of the deposit will depend on the finance company's policy and its assessment of the hirer. This is in contrast to a finance lease, where the lessee might not be required to make any large initial payment.

An industrial or commercial business can use hire purchase as a source of finance. With industrial hire purchase, a business customer obtains hire purchase finance from a finance house in order to purchase the fixed asset. Goods bought by businesses on hire purchase include company vehicles, plant and machinery, office equipment and farming machinery.

Government assistance

The government provides finance to companies in cash grants and other forms of direct assistance, as part of its policy of helping to develop the national economy, especially in high technology industries and in areas of high unemployment. For

example, the Indigenous Business Development Corporation of Zimbabwe (IBDC) was set up by the government to assist small indigenous businesses in that country.

Venture capital

Venture capital is money put into an enterprise which may all be lost if the enterprise fails. A businessman starting up a new business will invest venture capital of his own, but he will probably need extra funding from a source other than his own pocket. However, the term 'venture capital' is more specifically associated with putting money, usually in return for an equity stake, into a new business, a management buy-out or a major expansion scheme.

The institution that puts in the money recognises the gamble inherent in the funding. There is a serious risk of losing the entire investment, and it might take a long time before any profits and returns materialise. But there is also the prospect of very high profits and a substantial return on the investment. A venture capitalist will require a high expected rate of return on investments, to compensate for the high risk.

A venture capital organisation will not want to retain its investment in a business indefinitely, and when it considers putting money into a business venture, it will also consider its "exit", that is, how it will be able to pull out of the business eventually (after five to seven years, say) and realise its profits. Examples of venture capital organisations are: Merchant Bank of Central Africa Ltd and Anglo American Corporation Services Ltd.

When a company's directors look for help from a venture capital institution, they must recognise that:

- the institution will want an equity stake in the company
- it will need convincing that the company can be successful
- it may want to have a representative appointed to the company's board, to look after its interests.

The directors of the company must then contact venture capital organisations, to try and find one or more which would be willing to offer finance. A venture capital organisation will only give funds to a company that it believes can succeed, and before it will make any definite offer, it will want from the company management:

a) a business plan
b) details of how much finance is needed and how it will be used
c) the most recent trading figures of the company, a balance sheet, a cash flow forecast and a profit forecast
d) details of the management team, with evidence of a wide range of management skills
e) details of major shareholders
f) details of the company's current banking arrangements and any other sources of finance
g) any sales literature or publicity material that the company has issued.

A high percentage of requests for venture capital are rejected on an initial screening, and only a small percentage of all requests survive both this screening and further investigation and result in actual investments.

Franchising

Franchising is a method of expanding business on less capital than would otherwise be needed. For suitable businesses, it is an alternative to raising extra capital for growth. Franchisors include Budget Rent-a-Car, Wimpy, Nando's Chicken and Chicken Inn.

Under a franchising arrangement, a franchisee pays a franchisor for the right to operate a local business, under the franchisor's trade name. The franchisor must bear certain costs (possibly for architect's work, establishment costs, legal costs, marketing costs and the cost of other support services) and will charge the franchisee an initial franchise fee to cover set-up costs, relying on the subsequent regular payments by the franchisee for an operating profit. These regular payments will usually be a percentage of the franchisee's turnover.

Although the franchisor will probably pay a large part of the initial investment cost of a franchisee's outlet, the franchisee will be expected to contribute a share of the investment himself. The franchisor may well help the franchisee to obtain loan capital to provide his-share of the investment cost.

The advantages of franchises to the franchisor are as follows:

- The capital outlay needed to expand the business is reduced substantially.
- The image of the business is improved because the franchisees will be motivated to achieve good results and will have the authority to take whatever action they think fit to improve the results.

The advantage of a franchise to a franchisee is that he obtains ownership of a business for an agreed number of years (including stock and premises, although premises might be leased from the franchisor) together with the backing of a large organisation's marketing effort and experience. The franchisee is able to avoid some of the mistakes of many small businesses, because the franchisor has already learned from its own past mistakes and developed a scheme that works.

Now attempt exercise 7.1.

Exercise 7.1 Sources of finance

Outdoor Living Ltd., an owner-managed company, has developed a new type of heating using solar power, and has financed the development stages from its own resources. Market research indicates the possibility of a large volume of demand and a significant amount of additional capital will be needed to finance production.

Advise Outdoor Living Ltd. on:

a) the advantages and disadvantages of loan or equity capital
b) the various types of capital likely to be available and the sources from which they might be obtained
c) the method(s) of finance likely to be most satisfactory to both Outdoor Living Ltd. and the provider of funds.

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Key terms

Bank lending
Capital markets
Debentures
Deferred ordinary shares
Franchising
Government assistance
Hire purchase
Loan stocks
New share issue
Ordinary shares
PARTS
Preference shares
Retained earnings
Rights issue
Sources of funds
Venture capital

FACT for Food Processors Toolbox

Part Two

- Templates
  - Business Plans
  - Templates
  - DuPont Model Template
  - Techmatics Template

Financial Analysis
Summary tables

Summary of the Project:

Description: High Quality Paste, Juice and Sauces for Export

Analysts: Douglas Andersen & Ali El-Sayed

Date: April 2003

Key Assumptions:

Enterprise scale	8,000 Ton Raw Material (Full Capacity)
Geographic location	6 of October City
Initial investment	LE 10,664,763
Typical recurrent input costs	LE 9,253,914
Key yield factors	Paste, Juice Sauces
Annual Average Gross Return (full Capa	LE 13,605,451 annual
Discount rate	14%
Inflation rate (if any)	5%
Analysis period	20 years

Present Value @ 10% over 20 years:

Investment inputs	LE 9,355,055 (includes working capital)
Recurrent inputs	LE 9,253,914
Revenues	LE 13,605,451
Residual values	LE 210,281
Net Present Value of Enterprise @ 14% over 20 years	-24,987,280

Financial Analysis Results:

Return on recurrent inputs - (Year one)	47.02% static state
Return on investment and recurrent inputs - (Year one)	13.77% static state
Internal Rate of Return	#DIV/0!
Benefit Cost Ratio @14%	0.88

Breakeven on cumulative discounted basis after years

Threshold Analysis Results:

Net Present Value of Enterprise equals ZERO when.....

Yield / Prices	decreased by	28%
Investment Expenditure	increased by	267%
Recurrent Inputs	increased by	27%

Major Risks to Financial Viability:

Fluctuations in raw material prices

Relatively new to the market

Note: Production plan at full capacity

Product Type	%	Annual production (Pices)	Marketing Plan		
			USA	Maghreb, and COMESA and GCC	Local Market
Tomato paste 22 b	22%	120,000	60,000	24,000	36,000
Tomato paste 22br(48*6 oz.tin)	3%	18,382	9,191	3,676	5,515
Tomato paste 22 b(3kg tin)	2%	9,167	4,583	1,833	2,750
White vinegar 6O	12%	66,000	33,000	13,200	19,800
Mango juice 250ml	32%	176,000	88,000	35,200	52,800
Guava juice 250 ml	12%	66,000	33,000	13,200	19,800
Chili paste 380gm	10%	55,000	27,500	11,000	16,500
Ketchup 340 g	3%	14,400	7,200	2,880	4,320
Mayonnaise 340 g	3%	14,400	7,200	2,880	4,320
Special sauces	3%	14,400	7,200	2,880	4,320

Financial Static Analysis (Year one)

Enterprise Paste, Juice and Sauces

Investment Inputs

Assumed real interest rate: 0.14 pa

				Item Cost (LE)	Useful Life (yrs)	Annualised Cost (LE)	Confidence limits
Land				2,800,000	100	28,000	+/-20%
Admin. Buildings				400,000	30	13,333	+/-20%
Production Facilities & Infrastructure				1,280,000	30	42,667	+/-20%
Raw Material Storage Facilities				250,000	30	8,333	+/-20%
Civil Works (Water, Drainage, etc.)				800,000	30	26,667	+/-20%
Storage Tanks				36,000	20	1,800	+/-20%
Processing Line				2,325,610	15	155,041	+/-20%
Office Supplies				90,000	5	18,000	+/-20%
Transportation Units				300,000	10	30,000	+/-20%
Pre-operating Cost				50,000	1	50,000	+/-20%
Permits, etc.		1	2,700	2,700	10	270	+/-20%
Other				0	1	0	+/-20%
Working capital	Years	1	1	2,330,453	0	2,330,453	+/-20%
TOTAL:				10,664,763		$2,704,563	

Total annualised investment cost per unit:

Item	%	Cost (LE)	
Tomato Paste	0.10	264,714	Per Year
Vinegar	0.11	293,222	Per Year
Juices	0.21	559,972	Per Year
Chili Paste	0.07	183,264	Per Year
Ketchup, Mayon., &Sauces	0.52	1,403,392	Per Year
Total	1	2,704,563	Per Year

Recurrent Inputs

	Units	Costs calculated per: Amount	Price/Unit	Annual Cost (LE)		Confidence limits
Raw Material (LI		1	2,249,200	2,249,200		+/-25%
Additives (LE)		1	866,706	866,706		+/-25%
Filling & Packaging Materials (		1	3,875,452	3,875,452		+/-25%
Direct labor (LE)		1	202,428	202,428		+/-25%
Power Consumption (LE)		1	67,476	67,476		+/-25%
Water Consumption (LE)		1	67,476	67,476		+/-25%
Sales & Marketing (LE)		1	368,600	368,600		+/-25%
Research & Development (LE)		1	50,000	50,000		+/-25%
General & Administrative (LE)		1	200,000	200,000		+/-25%
Admin. Salaries (LE)		1	806,680	806,680		+/-25%
Maintenance (LI		1	249,948	249,948		+/-25%
Insurance (LE)		1	249,948	249,948		+/-25%
Other		1	0	0		+/-25%
TOTAL:				9,253,914	per	Year

Yield Paste, Juice and Sauces

Demand/Revenues

Yields estimated per: Year

Prices estimated per: Ton

	Total Factory Gate LE	Income	Confidence limits
Tomato Paste	3,612,451	3,612,451	+/-20%
Vinegar	930,600	930,600	
Juices	5,192,000	5,192,000	+/-20%
Chili Paste	2,200,000	2,200,000	+/-20%
Ketchup, Mayon., &Sauces	1,670,400	1,670,400	+/-20%
	0	0	+/-20%
TOTAL:		13,605,451	

Financial Static Analysis (Year one)

FINANCIAL ANALYSIS RESULTS

Static Analysis:

For a typical year or season of production, once the enterprise has been established:

Revenue (LE)	13,605,451	per	Year
Less Recurrent Inputs	-9,253,914	per	Year
= Gross Margin (LE)	4,351,537	per	Year
=	47% return on recurrent inputs only		
Less Investment in annualised	-2,704,563	per	Year
= Net Margin (LE)	1,646,974	per	Year
=	14% return on investment & recurrent inputs		

Sensitivity Analysis:

Gross Margin = 0 when:	Revenue (LE) is reduced by	32%
	Recurrent Inputs are increased by	47%
Net Margin = 0 when:	Revenue (LE) is reduced by	12%
	Recurrent Inputs are increased by	18%
	Investment Inputs is increased by	61%

Demand Sensitivity:	Y / N	Recommendation
Is there an established market for the product?	y	(Good - go to next question)
Is this market readily accessible?	y	(Good - go to next question)
Will the produce volume upset market stability?	n	(Good - go to next question)
Will the produce volume affect market price?	n	(Good - go to next question)
Is the market likely to strengthen with time?	y	(Good - robust solution)
Are new markets likely to emerge with time?	y	Investigate development of these markets

CASH FLOW ANALYSIS

for enterprise of 1 Year

	Total	Present Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Investment Inputs		14%											
Land	-2,800,000	-2,499,140	-2,800,000	0	0	0	0	0	0	0	0	0	0
Admin. Buildings	-400,000	-350,877	-400,000	0	0	0	0	0	0	0	0	0	0
Production Facilities & Infrastructure	-1,350,000	-1,188,607	-1,350,000	0	0	0	0	0	0	0	0	0	0
Raw Material Storage Facilities	-350,000	-319,356	-350,000	0	0	0	0	0	0	0	0	0	0
Civil Works (Water, Drainage, etc.)	-800,000	-701,754	-800,000	0	0	0	0	0	0	0	0	0	0
Storage Tanks	-95,000	-91,576	-95,000	0	0	0	0	0	0	0	0	0	0
Processing Line	-2,985,610	-2,040,009	-2,985,610	0	0	0	0	0	0	0	0	0	0
Office Supplies	-60,000	-75,847	-60,000	0	0	0	0	0	0	0	0	0	0
Transportation Units	-800,000	-599,155	-800,000	0	0	0	0	0	0	0	0	0	0
Pre-operating Cost	-50,000	-43,550	-50,000	0	0	0	0	0	0	0	0	0	0
Permits, etc.	-2,700	-2,599	-2,700	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Working capital	-2,880,489	-2,044,997	-2,880,489	0	0	0	0	0	0	0	0	0	0
SUB-TOTAL:	-10,694,799	-8,555,055	-10,694,799	0	0	0	0	0	0	0	0	0	0
Recurrent Inputs													
Raw Material (LE)	-121,885,480	-88,032,898	-2,349,200	-6,266,120	-6,266,120	-6,266,120	-6,266,120	-6,266,120	-6,266,120	-6,266,120	-6,266,120	-6,266,120	-6,266,120
Additives (LE)	-18,485,902	-8,991,044	-696,708	-979,968	-979,968	-979,968	-979,968	-979,968	-979,968	-979,968	-979,968	-979,968	-979,968
Filling & Packaging Materials (LE)	-93,882,202	-50,882,184	-3,875,482	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724
Direct labor (LE)	-10,881,893	-8,439,837	-302,485	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751
Power Consumption (LE)	-3,880,584	-1,142,778	-67,476	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584
Water Consumption (LE)	-3,880,584	-1,142,778	-67,476	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584
Sales & Marketing (LE)	-482,600	-687,809	-356,600	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000
Research & Development (LE)	-1,000,000	-591,157	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000	-60,000
General & Administrative (LE)	-4,000,000	-1,884,888	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000
Admin. Salaries (LE)	-16,138,600	-5,848,747	-808,880	-808,880	-808,880	-808,880	-808,880	-808,880	-808,880	-808,880	-808,880	-808,880	-808,880
Maintenance (LE)	-4,898,888	-1,888,440	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848
Insurance (LE)	-4,898,888	-1,888,440	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848	-348,848
Interest	-889,884	-189,809	0	0	0	0	-84,888	-84,888	-84,888	-84,888	-84,888	-84,888	-84,888
Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL:	-285,480,422	-91,618,760	-9,888,914	-14,808,888	-14,808,888	-14,808,888	-14,544,888	-14,544,888	-14,544,888	-14,544,888	-14,544,888	-14,544,888	-14,544,888
Revenue													
Paste, Juice and Sauces	270,138,189	88,879,084	11,884,880	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461
SUB-TOTAL:	270,138,189	88,879,084	11,884,880	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461	13,605,461
Residual Values													
Land	$2,800,000	$308,788	-	-	-	-	-	-	-	-	-	-	-
Admin. Buildings	$800,000	$8,548	-	-	-	-	-	-	-	-	-	-	-
Production Facilities & Infrastructure	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Raw Material Storage Facilities	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Civil Works (Water, Drainage, etc.)	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Storage Tanks	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Processing Line	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Office Supplies	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Transportation Units	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Pre-operating Cost	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Permits, etc.	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Other	$0	$0	-	-	-	-	-	-	-	-	-	-	-
Working capital	$0	$0	-	-	-	-	-	-	-	-	-	-	-
SUB-TOTAL:	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CASH FLOW ANALYSIS

for enterprise of

Investment Inputs									
Land	0	0	0	0	0	0	0	0	0
Admin. Buildings	0	0	0	0	0	0	0	0	0
Production Facilities & Infrastructure	0	0	0	0	0	0	0	0	0
Raw Material Storage Facilities	0	0	0	0	0	0	0	0	0
Civil Works (Water, Drainage, etc.)	0	0	0	0	0	0	0	0	0
Storage Tanks	0	0	0	0	0	0	0	0	0
Processing Line	0	0	0	0	0	0	0	0	0
Office Supplies	0	0	0	0	0	0	0	0	0
Transportation Units	0	0	0	0	0	0	0	0	0
Pre-operating Cost	0	0	0	0	0	0	0	0	0
Permits, etc.	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
Working capital	0	0	0	0	0	0	0	0	0
SUB-TOTAL:	0	0	0	0	0	0	0	0	0
Recurrent Inputs									
Raw Material (LE)	-6,286,120	-6,286,120	-6,286,120	-6,286,120	-6,286,120	-6,286,120	-6,286,120	-6,286,120	-6,286,120
Additives (LE)	-979,958	-979,958	-979,958	-979,958	-979,958	-979,958	-979,958	-979,958	-979,958
Filling & Packaging Materials (LE)	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724	-4,737,724
Direct labor (LE)	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751	-565,751
Power Consumption (LE)	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584
Water Consumption (LE)	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584	-188,584
Sales & Marketing (LE)	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000	-6,000
Research & Development (LE)	-50,000	-50,000	-50,000	-50,000	-50,000	-50,000	-50,000	-50,000	-50,000
General & Administrative (LE)	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000
Admin. Salaries (LE)	-808,680	-808,680	-808,680	-808,680	-808,680	-808,680	-808,680	-808,680	-808,680
Maintenance (LE)	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948
Insurance (LE)	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948	-249,948
Interest	-34,993	-34,993	-34,993	-34,993	-34,993	-34,993	-34,993	-34,993	-34,993
Taxes	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
TOTAL:	-14,544,289	-14,544,289	-14,544,289	-14,544,289	-14,544,289	-14,544,289	-14,544,289	-14,544,289	-14,544,289
Revenue									
Paste, Juice and Sauces	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451
SUB-TOTAL:	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451	13,605,451
Residual Values									
Land	-	-	-	-	-	-	-	-	2,800,000
Admin. Buildings	-	-	-	-	-	-	-	-	90,000
Production Facilities & Infrastructure	-	-	-	-	-	-	-	-	-
Raw Material Storage Facilities	-	-	-	-	-	-	-	-	-
Civil Works (Water, Drainage, etc.)	-	-	-	-	-	-	-	-	-
Storage Tanks	-	-	-	-	-	-	-	-	-
Processing Line	-	-	-	-	-	-	-	-	-
Office Supplies	-	-	-	-	-	-	-	-	-
Transportation Units	-	-	-	-	-	-	-	-	-
Pre-operating Cost	-	-	-	-	-	-	-	-	-
Permits, etc.	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Working capital	-	-	-	-	-	-	-	-	-
SUB-TOTAL:	-	-	-	-	-	-	-	-	2,890,000
NET CASH FLOW:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FINANCIAL ANALYSIS RESULTS

Cash Flow Analysis:

Net Present Value @	14%	-$24,267,280	Unfavourable Outcome
Internal Rate of Return		#DIV/0!	#DIV/0!
Benefit Cost Ratio @	14%	0.86	Unfavourable Outcome

Sensitivity Analysis:

Net Present Value with ....

> discount rate of	12% pa	-$26,709,936	Not sensitive
> discount rate of	16% pa	-$23,529,951	Not sensitive

Internal Rate of Return with ....

> yield / prices decreased by	30%	#VALUE!	#VALUE!
> investment expenditure increased by	10%	#DIV/0!	#DIV/0!
>recurrent inputs increased by	10%	#DIV/0!	#DIV/0!

Threshold Analysis:

Net Present Value equals ZERO with ....

> yield / prices increased by	26.3%	Outcome not sensitive to yield / price assumptions
> investment expenditure decreased by	257.1%	Outcome not sensitive to investment expenditure assumptions
>recurrent inputs decreased by	27.3%	Outcome not sensitive to seasonal input assumptions

Breakeven Analysis:

The Enterprise does not break even within the 20 year evaluation period.

Cash Flow Analysis:

Net Present Value ●
Internal Rate of Return
Benefit Cost Ratio ●

Sensitivity Analysis:

Net Present Value with ....
> discount rate of
> discount rate of
Internal Rate of Return with ....
> yield / prices
> investment expenditure
>recurrent inputs

Threshold Analysis:

Net Present Value equals ZERO with

> inves

Breakeven Analysis:

The Enterprise does not break even within the 20

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Table (F-1): GROSS PROFIT ANALYSIS BY PRODUCT (at full capacity by month) ***

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tomato Paste													
Sales	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	3,612,451
Raw Material	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	220,145
Other Recurrent Inputs	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	745,081
Fixed cost of Goods	22,080	22,080	22,080	22,080	22,080	22,080	22,080	22,080	22,080	22,080	22,080	22,080	264,714
Gross Profit	198,543	198,543	198,543	198,543	198,543	198,543	198,543	198,543	198,543	198,543	198,543	198,543	2,382,511
% of Sales	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%	65.96%
Vinegar													
Sales	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	930,600
Material	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	243,852
Other Recurrent Inputs	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	825,321
Fixed cost of Goods	24,435	24,435	24,435	24,435	24,435	24,435	24,435	24,435	24,435	24,435	24,435	24,435	293,222
Gross Profit	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-35,983	-431,796
% of Sales	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%	-46.40%
Juices													
Sales	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	5,192,000
Material	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	465,690
Other Recurrent Inputs	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	1,576,134
Fixed cost of Goods	46,664	46,664	46,664	46,664	46,664	46,664	46,664	46,664	46,664	46,664	46,664	46,664	559,972
Gross Profit	215,850	215,850	215,850	215,850	215,850	215,850	215,850	215,850	215,850	215,850	215,850	215,850	2,590,204
% of Sales	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%	49.89%
Chili Paste													
Sales	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	2,200,000
Material	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	152,408
Other Recurrent Inputs	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	515,820
Fixed cost of Goods	15,272	15,272	15,272	15,272	15,272	15,272	15,272	15,272	15,272	15,272	15,272	15,272	183,264
Gross Profit	112,375	112,375	112,375	112,375	112,375	112,375	112,375	112,375	112,375	112,375	112,375	112,375	1,348,508
% of Sales	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%	61.30%
Ketchup, Mayon., &Sauces													
Sales	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	1,670,400
Material	97,269	97,269	97,269	97,269	97,269	97,269	97,269	97,269	97,269	97,269	97,269	97,269	1,167,108
Other Recurrent Inputs	389,173	389,173	389,173	389,173	389,173	389,173	389,173	389,173	389,173	389,173	389,173	389,173	5,690,077
Fixed cost of Goods	116,949	116,949	116,949	116,949	116,949	116,949	116,949	116,949	116,949	116,949	116,949	116,949	1,403,392
Gross Profit	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-404,181	-4,850,174
% of Sales	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%	-290.36%

Table (F-2): BUDGET (at full capacity/month) ***

	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	Year Total
Sales													
Tomato Paste	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	301,038	3,612,451
Vinegar	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	930,600
Juices	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	5,192,000
Chili Paste	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	2,200,000
Ketchup, Mayon., &Sauces	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	1,670,400
Total Sales	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	13,605,451
Cost of Goods sold													
Material	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	2,249,200
Other Recurrent Inputs	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	7,612,439
Total Variable COGS	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	9,861,639
% of Total Sales	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%
Cost of goods soled													
Land	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	28,000
Admin. Buildings	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	13,333
Production Facilities & Infrastructu	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	42,667
Raw Material Storage Facilities	694	694	694	694	694	694	694	694	694	694	694	694	8,333
Civil Works (Water, Drainage, etc.	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	26,667
Storage Tanks	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Processing Line	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	155,041
Office Supplies	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Transportation Units	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
Pre-operating Cost	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	50,000
Permits, etc.	23	23	23	23	23	23	23	23	23	23	23	23	270
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Working capital	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	2,330,453
Total fixed cost of goods	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	2,704,563
% of Total Sales	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%	19.88%
Total Cost of Goods Sold	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	12,566,202
Gross Profit	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	1,039,249
% of Total Sales	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%
Operating Expenses													
Sales & Marketing													
Advertising	0	0	0	0	0	0	0	0	0	0	0	0	0
Commissions	0	0	0	0	0	0	0	0	0	0	0	0	0
- or - % of Sales	3,600	0	0	0	0	0	0	0	0	0	0	0	3,600
Entertainment	15,000	0	0	0	0	0	0	0	0	0	0	0	15,000
Literature	10,000	0	0	0	0	0	0	0	0	0	0	0	10,000
Promotions	40,000	0	0	0	0	0	0	0	0	0	0	0	40,000
Salaries	150,000	0	0	0	0	0	0	0	0	0	0	0	150,000
Trade Shows	50,000	0	0	0	0	0	0	0	0	0	0	0	50,000
Travel	100,000	0	0	0	0	0	0	0	0	0	0	0	100,000
Total Sales & Marketing Costs	368,600	0	0	0	0	0	0	0	0	0	0	0	368,600
% of Total Sales	32.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.71%

BUDGET (at full capacity/month) ... Continued

Research & Development													
Consulting	6,000	0	0	0	0	0	0	0	0	0	0	0	6000
Equipment (Expensed Purchases)	0	0	0	0	0	0	0	0	0	0	0	0	0
R & D Materials	10,000	0	0	0	0	0	0	0	0	0	0	0	10000
R & D Salaries	24,000	0	0	0	0	0	0	0	0	0	0	0	24000
Total R & D Costs	40000	0	0	0	0	0	0	0	0	0	0	0	40000
% of Total Sales	3.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.29%
General & Administrative													
Accounting	15,000	0	0	0	0	0	0	0	0	0	0	0	15,000
Admin Salaries	10,000	0	0	0	0	0	0	0	0	0	0	0	10,000
Bad Debts	50,000	0	0	0	0	0	0	0	0	0	0	0	50,000
Depreciation	12,000	0	0	0	0	0	0	0	0	0	0	0	12,000
Equipment Cost/Small Purchases	50,000	0	0	0	0	0	0	0	0	0	0	0	50,000
Insurance	10,000	0	0	0	0	0	0	0	0	0	0	0	10,000
Legal Fees	6,000	0	0	0	0	0	0	0	0	0	0	0	6,000
Licenses and Permits	6,000	0	0	0	0	0	0	0	0	0	0	0	6,000
Office Expenses	6,000	0	0	0	0	0	0	0	0	0	0	0	6,000
Office Cost	10,000	0	0	0	0	0	0	0	0	0	0	0	10,000
Taxes (non-Income Taxes)	20,000	0	0	0	0	0	0	0	0	0	0	0	20,000
Telephone	5,000	0	0	0	0	0	0	0	0	0	0	0	5,000
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total G & A Costs	200,000	0	0	0	0	0	0	0	0	0	0	0	200,000
% of Total Sales	17.64%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.47%
Total Operating Expenses	608,600	0	0	0	0	0	0	0	0	0	0	0	608600
% of Total Sales	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.47%
Income From Operations	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
% of Total Sales	0	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.00%
Interest on Income	0	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	95,265
Interest expenses	0	0	0	0	0	0	0	0	0	0	0	0	0
Income before Taxes	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
Taxes on Income	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income After Taxes	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
% of Total Sales	0	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.00%

Table (F-3): INCOME STATEMENT (at full capacity/month) ***

	1M	2M	3M	4M	5M	6M	7M	8M	9M	10M	11M	12M	Total
Sales													
Tomato Paste	301,036	301,036	301,036	301,036	301,036	301,036	301,036	301,036	301,036	301,036	301,036	301,036	3,612,451
Vinegar	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	77,550	930,600
Juices	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	432,667	5,192,000
Chili Paste	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	183,333	2,200,000
Ketchup, Mayon., &Sauces	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	139,200	1,670,400
80	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Sales	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	13,606,451
Cost of Goods sold													
Material	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	187,433	2,249,200
Other Recurrent Inputs	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	634,370	7,612,439
Total Variable COGS	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	9,861,639
% of Total Sales	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%	72.48%
Depreciation	0	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	2,704,563
Total Cost of Goods Sold	821,803	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	1,047,183	12,566,202
Gross Profit	311,984	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	1,039,249
% of Total Sales	27.52%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%
Operating Expenses													
Sales & Marketing	368,600	0	0	0	0	0	0	0	0	0	0	0	368600
Research & Development	40000	0	0	0	0	0	0	0	0	0	0	0	40000
G & A (Without Depreciation)	188,000	0	0	0	0	0	0	0	0	0	0	0	188,000
Depreciation	12,000	0	0	0	0	0	0	0	0	0	0	0	12,000
Total Operating Expenses	608,600	0	0	0	0	0	0	0	0	0	0	0	608,600
% of Total Sales	53.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.47%
Income From Operations	-296,616	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	430,649
% of Total Sales	-26.16%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	3.17%
Interest Income	0	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	96,266
Interest Expense	0	0	0	0	0	0	0	0	0	0	0	0	0
Income before Taxes	-296,616	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	526,914
Taxes on Income	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income After Taxes	-296,616	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	526,914
% of Total Sales	-26.16%	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%	8.40%	3.87%

Table (F-4): BALANCE SHEET (at full capacity/month) ***

As of the Month Ending:

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Total
Assets													
Current Assets													
Cash	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	13,605,451
Investments	62,195	62,195	62,195	62,195	62,195	62,195	62,195	62,195	62,195	62,195	62,195	62,195	746,344
Accounts Receivable	0	0	0	0	0	0	0	0	0	0	0	0	0
Notes Receivable	0	0	0	0	0	0	0	0	0	0	0	0	0
Inventory	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Current Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Current Assets	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	14,351,795
													0
Plant & Equipment													0
Land	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	28,000
Admin. Buildings	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	13,333
Production Facilities & Infrastruc	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	42,667
Raw Material Storage Facilities	694	694	694	694	694	694	694	694	694	694	694	694	8,333
Civil Works (Water, Drainage, et	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	26,667
Storage Tanks	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Processing Line	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	155,041
Office Supplies	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Transportation Units	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
Pre-operating Cost	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	50,000
Permits, etc.	23	23	23	23	23	23	23	23	23	23	23	23	270
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Working capital	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	2,330,453
													0
Other Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Assets	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	17,056,359
													0
Liabilities & Owners' Equity													0
Current Liabilities													0
Short Term Debt	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	8,528,179
Accounts Payable	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Payables	0	0	0	0	0	0	0	0	0	0	0	0	0
Accrued Liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Current Liabilities	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	8,528,179
													0
Long Term Debt	710,682	0	0	0	0	0	0	0	0	0	0	0	710,682
Total Liabilities	1,421,363	0	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	8,528,179
													0
Owner/Stockholder Equity													0
Common Stock	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	2,842,726
Retained Earnings	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	2,842,726
Dividends Payable	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	2,842,726
Total Owners' Equity	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	710,682	8,528,179
													0
Total Liabilities & Equity	2,132,045	710,682	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	17,056,359

Table (F-5): CASH FLOWS (STATEMENT of CHANGES in FINANCIAL POSITION: at full capacity/month) ***

Sources of Cash:													
Operations during the year:													
Net Income After Taxes	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
Add items not decreasing cash													
Depreciation	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Accounts Payable	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Other Payables	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Accrued Liabilities	0	0	0	0	0	0	0	0	0	0	0	0	0
Deduct items not increasing cash													
Increase in Accounts Receivable	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Inventory	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash from Operations	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
Financing & Other:													
Sale of Stock	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from Short Term Loans	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from Long Term Loans	0	0	0	0	0	0	0	0	0	0	0	0	0
Sale of Investments	0	0	0	0	0	0	0	0	0	0	0	0	0
Collection of Notes Receivable	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduction of Other Current Asset	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduction of Other Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash from Operations & Financial	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
Applications of Cash:													
Payment of Dividends	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchases of Fixed Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayment of Short Term Loans	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayment of Long Term Loans	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchase of Investments	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Notes Receivable	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Other Current Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase in Other Assets	0	0	0	0	0	0	0	0	0	0	0	0	0
Increase/(Decrease) in Cash	0	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	952,645
Change in Cash Balance													
Ending Cash Balance	0	86,604	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799
Beginning Cash Balance	0	0	86,604	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	1,133,799	0
Increase/(Decrease) in Cash	0	86,604	1,047,195	0	0	0	0	0	0	0	0	0	1,133,799
	0	0	0	0	0	0	0	0	0	0	0	0	0

*** INCOME STATEMENT (Years 1 -10) ***

		of Total		of Total		of Total		of Total		of Total
Tomato Paste	0	0.00%	3,612,451	26.55%	3,612,451	26.55%	3,612,451	26.55%	3,612,451	26.55%
Vinegar	0	0.00%	930,600	6.84%	930,600	6.84%	930,600	6.84%	930,600	6.84%
Juices	0	0.00%	5,192,000	38.16%	5,192,000	38.16%	5,192,000	38.16%	5,192,000	38.16%
Chili Paste	0	0.00%	2,200,000	16.17%	2,200,000	16.17%	2,200,000	16.17%	2,200,000	16.17%
Ketchup, Mayon., &Sauces	0	0.00%	1,670,400	12.28%	1,670,400	12.28%	1,670,400	12.28%	1,670,400	12.28%
Total Sales	0	0.00%	13,605,451	100.00%	13,605,451	100.00%	13,605,451	100.00%	13,605,451	100.00%
Cost of Goods Sold										
Material	0	0.00%	2,249,200	16.53%	2,249,200	16.53%	2,249,200	16.53%	2,249,200	16.53%
Other recurrent inputs	0	0.00%	7,612,439	55.95%	7,612,439	55.95%	7,612,439	55.95%	7,612,439	55.95%
Total Variable COGS	0	0.00%	9,861,639	72.48%	9,861,639	72.48%	9,861,639	72.48%	9,861,639	72.48%
Total Fixed Cost of Goods & Servi	2,704,563	0.00%	2,704,563	19.88%	2,704,563	19.88%	2,704,563	19.88%	2,704,563	19.88%
Total Cost of Goods Sold	2,704,563	0.00%	12,566,202	92.36%	12,566,202	92.36%	12,566,202	92.36%	12,566,202	92.36%
Gross Profit	-2,704,563	0.00%	-2,704,563	-19.88%	-2,704,563	-19.88%	-2,704,563	-19.88%	-2,704,563	-19.88%
Operating Expenses										
Sales & Marketing	0	0.00%	368,600	2.71%	368,600	2.71%	368,600	2.71%	368,600	2.71%
Research & Development	0	0.00%	40,000	0.29%	40,000	0.29%	40,000	0.29%	40,000	0.29%
G & A (without Depreciation)	0	0.00%	200,000	1.47%	200,000	1.47%	200,000	1.47%	200,000	1.47%
Depreciation	0	0.00%	12,000	0.09%	12,000	0.09%	12,000	0.09%	12,000	0.09%
Total Operating Expenses	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Income From Operations	0	0.00%	-2,704,563	-19.88%	-2,704,563	-19.88%	-2,704,563	-19.88%	-2,704,563	-19.88%
Interest Income	95,265	0.00%	95,265	0.70%	95,265	0.70%	95,265	0.70%	95,265	0.70%
Interest Expense										
Income before Taxes	95,265	0.00%	95,265	0.70%	95,265	0.70%	95,265	0.70%	95,265	0.70%
Taxes on Income										
Net Income After Taxes	95,265	0.00%	95,265	0.70%	95,265	0.70%	95,265	0.70%	95,265	0.70%

*** BALANCE SHEET (Years 1 - 10) ***

As of the Year Ending:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets										
Current Assets										
Cash	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786	1,133,786
Investments	62,196	62,196	62,196	62,196	62,196	62,196	62,196	62,196	62,196	62,196
Accounts Receivable	0	0	0	0	0	0	0	0	0	0
Notes Receivable	0	0	0	0	0	0	0	0	0	0
Inventory	0	0	0	0	0	0	0	0	0	0
Other Current Assets	0	0	0	0	0	0	0	0	0	0
Total Current Assets	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983	1,195,983
Plant & Equipment										
Land	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	2,333	28,000
Admin. Buildings	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	13,333
Production Facilities & Infrastruc	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	3,556	42,667
Raw Material Storage Facilities	694	694	694	694	694	694	694	694	694	8,333
Civil Works (Water, Drainage, et	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	26,667
Storage Tanks	150	150	150	150	150	150	150	150	150	1,800
Processing Line	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	12,920	155,041
Office Supplies	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	18,000
Transportation Units	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
Pre-operating Cost	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	50,000
Permits, etc.	23	23	23	23	23	23	23	23	23	270
Other	0	0	0	0	0	0	0	0	0	0
Working capital	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	194,204	2,330,453
Total Net Plant & Equipment	225,380	225,380	225,380	225,380	225,380	225,380	225,380			
Other Assets	0	0	0	0	0	0	0	0	0	0
Total Assets	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363	1,421,363
Liabilities & Owners' Equity										
Current Liabilities										
Short Term Debt	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692
Accounts Payable	0	0	0	0	0	0	0	0	0	0
Other Payables	0	0	0	0	0	0	0	0	0	0
Accrued Liabilities	0	0	0	0	0	0	0	0	0	0
Total Current Liabilities	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692
Long Term Debt	0	0	0	0	0	0	0	0	0	0
Total Liabilities	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692
Owner/Stockholder Equity										
Common Stock	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894
Retained Earnings	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894
Dividends Payable	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894	236,894
Total Owners' Equity	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692	710,692
Total Liabilities & Equity	1,421,383	1,421,383	1,421,383	1,421,383	1,421,383	1,421,383	1,421,383	1,421,383	1,421,383	1,421,383

*** CASH FLOWS (STATEMENT of CHANGES In FINANCIAL POSITION: Years 1 - 10) ***

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Sources of Cash:										
Operations during the year:										
Net Income After Taxes	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233
Add items not decreasing cash										
Depreciation	0	0	0	0	0	0	0	0	0	0
Increase In Accounts Payable	0	0	0	0	0	0	0	0	0	0
Increase In Other Payables	0	0	0	0	0	0	0	0	0	0
Increase In Accrued Liabilities	0	0	0	0	0	0	0	0	0	0
Deduct items not increasing cash										
Increase In Accounts Receivabl	0	0	0	0	0	0	0	0	0	0
Increase In Inventory	0	0	0	0	0	0	0	0	0	0
Cash from Operations	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233
Financing & Other:										
Sale of Stock	0	0	0	0	0	0	0	0	0	0
Proceeds from Short Term Loans	0	0	0	0	0	0	0	0	0	0
Proceeds from Long Term Loans	10,662,063	0	0	0	0	0	0	0	0	0
Sale of Investments	0	0	0	0	0	0	0	0	0	0
Collection of Notes Receivable	0	0	0	0	0	0	0	0	0	0
Reduction of Other Current Asse	0	0	0	0	0	0	0	0	0	0
Reduction of Other Assets	0	0	0	0	0	0	0	0	0	0
Cash from Operations & Financi	-5,926,171	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233
Applications of Cash:										
Payment of Dividends	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233	-16,588,233
Purchases of Fixed Assets	0	0	0	0	0	0	0	0	0	0
Repayment of Short Term Loans	0	0	0	0	0	0	0	0	0	0
Repayment of Long Term Loans	0	3,731,722	4,776,604	0	0	0	0	0	0	0
Purchase of Investments	0	0	0	0	0	0	0	0	0	0
Increase In Notes Receivable	0	0	0	0	0	0	0	0	0	0
Increase In Other Current Assets	0	0	0	0	0	0	0	0	0	0
Increase In Other Assets	0	0	0	0	0	0	0	0	0	0
Increase/(Decrease) In Cash	10,662,063	-3731721.89	-4776604.02	0	0	0	0	0	0	0
Change in Cash Balance										
Ending Cash Balance	1,133,788	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582
Beginning Cash Balance	0	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582	1133787.582
Increase/(Decrease) In Cash	1,133,788	0	0	0	0	0	0	0	0	0

Table (F-6): RATIO ANALYSIS (at maximum capacity/month) ***

Ratios	Year 1	Year 2	Year 3	Year 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Current Ratio	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Quick Ratio (Acid Test)	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
Return on Total Assets	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%
Total Assets Turnover	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Debt to Total Assets	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Gross Profit Margin		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Operating Profit Margin	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Profit Margin	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return on Sales	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Return on Owners' Equity		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Debt to Owners' Equity	13.40%	13.40%	13.40%	13.40%	13.40%	13.40%	13.40%	13.40%	13.40%	13.40%
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Current Ratio	= Current Assets / Current Liabilities
Quick Ratio (Acid Test)	= Quick Assets (Cash + Receivables) / Current Liabilities
Return on Total Assets	= Net Income After Taxes / Total Assets (at year end)
Total Assets Turnover	= Total Sales / Total Assets (at year end)
Total Debt to Total Assets	= Total Liabilities / Total Assets
Gross Profit Margin	= Gross Profit (Net Sales) / Total Sales
Operating Profit Margin	= Income From Operations (Before Interest & Taxes) / Total Sales
Net Profit Margin	= Net Income After Taxes / Total Sales
Return on Sales	= Net Income After Taxes / Gross Profit (Net Sales)
Return on Owners' Equity	= Net Income After Taxes / Total Owners' Equity (at year end)
Total Debt to Owners' Equity	= Total Liabilities / Total Owners' Equity

Table (F-7): BREAK-EVEN ANALYSIS (at maximum capacity/month) ***

	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	Year Total
Sales	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	1,133,788	13,605,451
Fixed Costs													
Fixed Cost of Goods & Services	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	2,704,563
Sales & Marketing (w/o Commissk	368,600	0	0	0	0	0	0	0	0	0	0	0	368,600
Research & Development	40,000	0	0	0	0	0	0	0	0	0	0	0	40,000
G & A (without Depreciation)	188,000	0	0	0	0	0	0	0	0	0	0	0	188,000
Depreciation	12,000	0	0	0	0	0	0	0	0	0	0	0	12,000
Less Reclassified Fixed Costs	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Fixed Costs	833,980	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	225,380	3,313,163
Variable Costs													
Material and Labor	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	9,861,639
Commissions	0	0	0	0	0	0	0	0	0	0	0	0	0
Plus Reclassified Fixed Costs	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Variable Costs	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	821,803	9,861,639
Income from Operations	-521,996	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	86,604	430,649
Interest Income(Expense) - "Fixed	0	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	8,660	95,265
Income Taxes - "Variable"	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income After Taxes	-521,996	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	95,265	525,914
Income from Operations Analysis													
Contribution Margin	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%
Break-Even Sales Volume	3,030,782	819,058	819,058	819,058	819,058	819,058	819,058	819,058	819,058	819,058	819,058	819,058	12,040,422
Sales Volume Above Break-Eve	-1,896,994	314,730	314,730	314,730	314,730	314,730	314,730	314,730	314,730	314,730	314,730	314,730	1,565,029
Net Income After Taxes Analysis													
Contribution Margin	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%
Break-Even Sales Volume	3,030,782	850,531	850,531	850,531	850,531	850,531	850,531	850,531	850,531	850,531	850,531	850,531	12,386,624
Sales Volume Above Break-Eve	-1,896,994	283,257	283,257	283,257	283,257	283,257	283,257	283,257	283,257	283,257	283,257	283,257	1,218,827

Project Initial Investment Cost

Cost Item	Area	Cost/Unit LE	Total cost LE	
Land	8,000	350	2,800,000	33.61%
Admin. Buildings	400	1,000	400,000	4.80%
Production Facilities & Infrastructure	1,600	800	1,280,000	15.36%
Raw Material Storage Facilities	500	500	250,000	3.00%
Civil Works (Water, Drainage, etc.)	1,600	500	800,000	9.60%
Storage Tanks	36	1,000	36,000	0.43%
Processing Line			2,325,610	27.91%
Office Supplies		90,000	90,000	1.08%
Transportation Units		300,000	300,000	3.60%
Pre-operating Cost			50,000	0.60%
Total Investment Cost			8,331,610	100%
Working Capital			2,330,453	
Hedging (5%)			533,103	
Total Production Facility Cost			10,662,063	

Production lines include fermentation tanks

Annualized Capital Investments (Depreciation)

Item	Life (Years)	Total Investment Cost (LE)	Annualized Investment Cost (Depreciation) in LE
Buildings	30	2,766,000	92,200
Machines & Equipment	20	2,325,610	116,281
Transportation facilities	10	300,000	30,000
Office Supplies	5	90,000	18,000
Total Annual Depreciation		5,738,091	256,481

Cesam Production Equipment Investment

Market Value of Existing Facilities

Type	Currency	No of Units	Cost Per Unit	Total cost
Processing Line				
Pulp and Concentrate Division:				
Juice and pulp line	EGP	1	20,000	20,000
Manzini Evaporators		1	450,000	450,000
Subtotal (1)				470,000
Processing Line:				
Mixer Homogenizer Koruma 400 lit.		1	220,000	220,000
Piston Homogenizer (Cherry Burrell) 4 T/hr		1	130,000	130,000
Mustard production line (Koruma) 400 kg/hr		1	100,000	100,000
Horizontal Pasteurizer (Retort) USA		1	100,000	100,000
Pasteurizing cart		8	500	4,000
St. Steel Mixer 3'000 lit., USA		1	20,000	20,000
St. Steel Mixer .....HP		5	5,000	25,000
St. Steel Mixer 100 liter, ... HP		1	500	500
St. Steel Mixer 1'000 liter, ... HP		1	4,500	4,500
St. Steel Mixer 500 liter, ...HP		1	2,800	2,800
St. Steel cylinder		2	1,200	1,200
St. Steel Mixer Cover		4	500	2,000
St. Steel Mixer 150 liter, ... HP		1	600	600
St. Steel Mixer 250 liter with Cover, ... HP		1	800	800
St. Steel Mixer 200 liter with wheels, ... HP		1	2,800	2,800
St. Steel Mixer 50 liter with high support,		1	1,500	1,500
Pump Lowara ... HP		1	500	500
Subtotal (2)				616,200
Filling lines & Packaging:				
Grisona paste filling unit, semiauto		1	25,000	25,000
White Cap twist-off capper, semiauto		1	33,000	33,000
Pilfer proof capper, semiauto		1	4,500	4,500
Horix bottle auto filler, 18 heads		1	95,000	95,000
5 kgs tins seamer, semiauto		1	13,500	13,500
Angelus/FMC can filling & seaming unit		1	250,000	250,000
Sachet (pouch) FFS unit		1	115,000	115,000
Gino Gherri auto capper		1	120,000	120,000
Meyer/GeyerJar filler 8 nozzles		1	120,000	120,000
Juniormatic labeller		1	100,000	100,000
Shrink wrapper		1	16,000	16,000
Inkjet Domino unit		1	25,000	25,000
Cooling tunnel, ... mt		1	60,000	60,000
Conveyor belt for glass bottles		1	6,000	6,000
Subtotal (3)				983,000
Utilities & Miscellaneous				
Hot sauce bottle Mould		1	2,500	2,500
Power stabilizer for Inkjet		1	250	250
Transformer for Inkjet		1	250	250
Fans Electrical Panel		1	950	950
Main Electrical panel		2	1,350	2,700
Fuel tank 8 MTons		2	1,500	3,000
St. St. working table		1	800	800
Water tank 3 Mtons		1	1,500	1,500
St. St. working table 85*85 and rack		1	1,800	1,800
Scale 500 kgs		1	300	300
Steam Boiler 500 kgs		1	11,000	11,000
Steam Boiler 3'500 kgs		1	50,000	50,000
Water treatment unit		1	25,000	25,000

Cesam Production Equipment Investment
Market Value of Existing Facilities

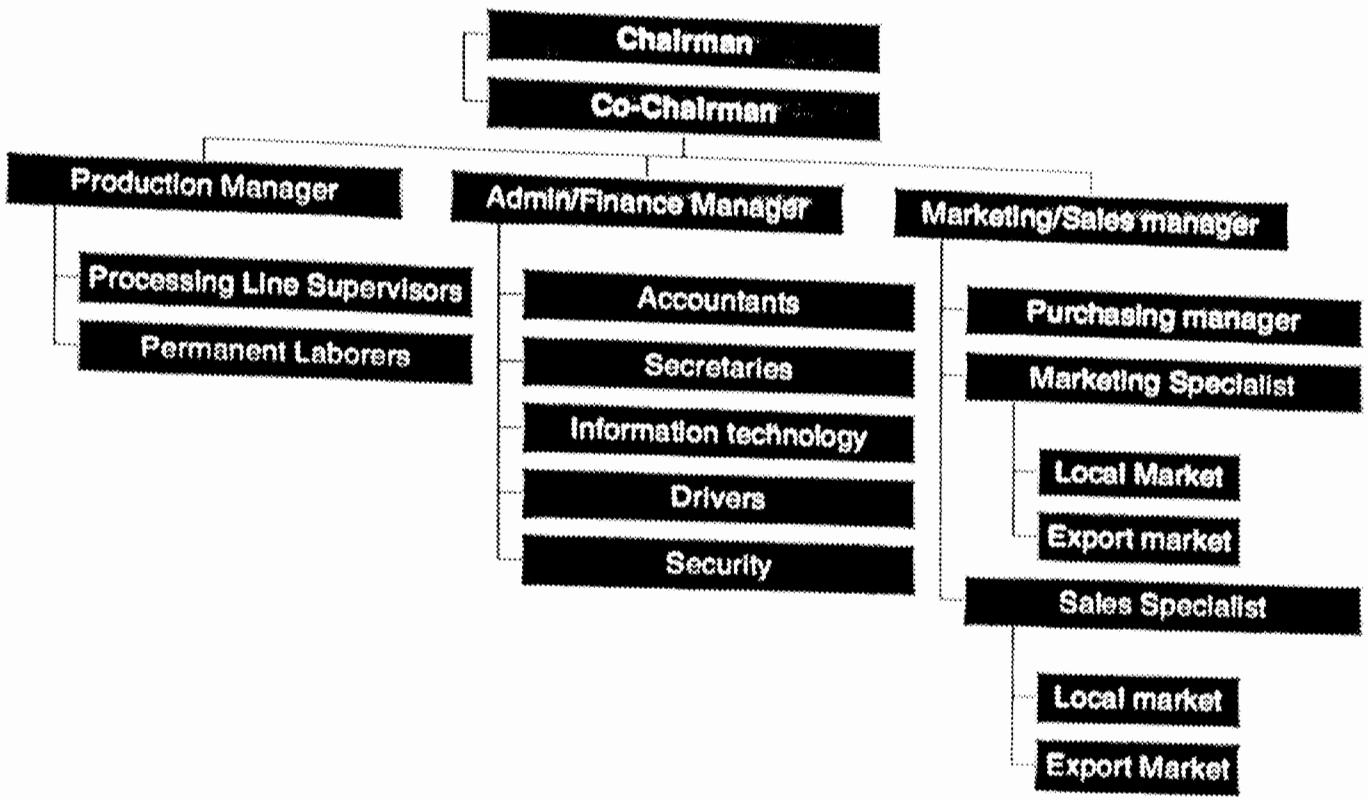
Type	Currency	No. of Units	Cost Per Unit	Total cost
Waldsha pump (USA)		5	18,000	90,000
Suction fan		3	700	2,100
Cooling tower		1	40,000	40,000
Water pump with accessories,type ...		1	500	500
Fire extinguisher pump		2	2,000	4,000
Hydraulic fork lift 2.5 MT		1	2,000	2,000
One ton polyethylene container (Vinegar)		1	1,200	1,200
Fire Extinguisher pump 6kgs		4	150	600
Fire fighting		1	1,500	1,500
Gearbox conveyor belt		1	1,000	1,000
Wooden barril		8	100	800
Power Generator		1	6,000	6,000
Stainless steel switch 1.5'		1	600	600
Electrical transformer 5.5 A Siemens		1	500	500
Subtotal (4)				258,850
Laboratory				
Lab equipment		1	5,000	5,000
Stainless steel 10 liter mixer		1	500	500
Moulinex machine		1	60	60
Subtotal (5)				5,560
Total				2,325,610

Office Supplies and Transportation Facilities

Type	Currency	No. of Units	Cost Per Unit	Total Cost
Office Supplies				
Board Meeting Room Furniture	LE	1	15,000	15,000
Air Conditions	LE	3	3,000	9,000
Staff Office Furniture	LE	5	2,000	10,000
Telephone Lines	LE	4	2,000	8,000
Fax Machines	LE	2	2,000	4,000
Small Tools / Supplies	LE	5	200	1,000
Office Equipment	LE	2	6,000	12,000
Computer System	LE	1	30,000	30,000
Sanitation Materials	LE	5	200	1,000
Total Office Supplies	LE			90,000
Transportation Units				
Midi Buses (12 P)	LE	1	150,000	150,000
Automobiles (Board)	LE	1	100,000	100,000
Automobiles (Other)	LE	1	50,000	50,000
Total Transportation Units	LE			300,000

Production Management Salaries*

Existing Structure



Production Management Salaries*

Existing Structure

Type	No.	M. Salary	Allowances & Benefits	Annual
Chairman	1	15,000	3000	231,000
Co Chairman	2	5,000	1000	149,000
General Manager	0		0	0
Facilities Manager	1	4,000	800	61,600
Marketing Manager	0		0	0
Financial Manager	1	4,000	800	61,600
Purchasing manager	1	1,500	300	23,100
R&D and Training Manager	1	3,000	600	46,200
Total Quality Assurance Manager	0		0	0
Law	0		0	0
Mechanical Engineer	1		0	0
Electrical Engineer	0		0	0
Marketing Specialist	0		0	0
Secretaries	2	1,000	200	29,800
Drivers	3	600	100	22,100
Security	3	350	70	10,430
General Services	2		0	0
Total Top Management Salaries				634,830
Production Facilities				
Processing Line Supervisor	1	750	150	11,550
Production Line Perm. laborers	20	400	60	115,600
Ag. Extension	0	0	0	0
Health service	0	0	0	0
Health service assistance	0	0	0	0
Admin	0	0	0	0
Accountants	2	1,500	300	44,700
Quality control	0	0	0	0
Industrial safety	0	0	0	0
Purchasing	0	0	0	0
Information Technology	0	0	0	0
Assistance	0	0	0	0
Total Production Management Salaries				171,850
Total Production Management Salaries				806,680

* Cost of direct labor included in the running cost

Variable Overhead Expenses

Cost Item	Cost LE
Sales & Marketing	
Advertising	
Commissions	
- or - 1% of Sales	3,600
Entertainment	15,000
Literature	10,000
Promotions	40,000
Salaries	150,000
Trade Shows	50,000
Travel	100,000
Total Sales & Marketing	**368,600**
Research & Development	
Consulting	6,000
Equipment (Expensed Purchases)	10,000
R & D Materials	10,000
R & D Salaries	24,000
Total Research & Development	**50,000**
General & Administrative	
Auditing	15,000
Admin Salaries	10,000
Bad Debts	50,000
Equipment Cost/Small Purchases	12,000
Insurance	50,000
Legal Fees	10,000
Licenses and Permits	6,000
Office Expenses	6,000
Office Cost	6,000
Taxes (non-Income Taxes)	10,000
Telephone	20,000
Utilities	5,000
Total General & Administrative	**200,000**
Grand Total	**618,600**

Financial Plan

Item	LE	%	Source of Finance
Borrowed Money	7,463,444	70.00	Commercial Banks
Self Finance ()	3,198,619	30.00	Dividends
Total Finance	10,662,063	100.00	

Borrowed Money Islamic Bank or Local Commercial Bank

Interest Rate % 14

Grace Period 2 Years

Loan Repay (USAID CIP)=LE 7,463,444

Year	Installments	Interest	Total
1	0	0	0
2	3,731,722	0	3,731,722
3	3,731,722	1,044,882	4,776,604
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0

Basic Assumption of Production

Metric tons & cases

	Year 1		Year 2 & Later	
	Volume (Ton)	Type/No. case	Volume (Ton)	Type/No. Cases
Tomato paste 22 b	550	120,000	650	120,000
Tomato paste 22br(48*6 oz.tin)	0	0	180	18,382
Tomato paste 22 b(3kg tin)	100	8,330	110	9,167
White vinegar 6°	720	60,000	792	66,000
Mango juice 250ml	1,000	160,000	1,100	176,000
Guava juice 250 ml	375	60,000	413	66,000
Chili paste 380gm	450	50,000	500	55,000
Ketchup 340 g	49	12,000	59	14,400
Mayonnaise 340 g	49	12,000	59	14,400
Special sauces	50	12,000	60	14,400
Total	3,343	494,330	3,872	553,748

Expected Annual Returns

Product	Year One				
	Sales Strategy*			Volume	Annual Total Factory Gate Value
	Primary Markets	Secondary Markets	Local Market	Units	LE
Tomato paste 22 b(12*380 gr)	60,000	24,000	36,000	120,000	2,400,000
Tomato paste 22br(48*6 oz.tin)	0	0	0	0	0
Tomato paste 22 b(4*3kg tin)	4,165	1,666	2,499	8,330	266,560
White vinegar 60	30,000	12,000	18,000	60,000	846,000
Mango juice 250ml	80,000	32,000	48,000	160,000	3,520,000
Guava juice 250 ml	30,000	12,000	18,000	60,000	1,200,000
Chili paste	25,000	10,000	15,000	50,000	2,000,000
Ketchup 340 g	6,000	2,400	3,600	12,000	324,000
Mayonnaise 340 g	6,000	2,400	3,600	12,000	468,000
Special sauces	6,000	2,400	3,600	12,000	600,000
Total Annual Return					11,624,560

Expected Annual Returns at Full Capacity

Product					
	Sales Strategy*				Gate Value
	Primary Market	Secondary Markets	Local		LE
Tomato paste 22 b(12*380 gr)	60,000	24,000	36,000	120,000	2,400,000
Tomato paste 22br(48*6 oz.tin)	9,191	3,676	5,515	18,382	919,118
Tomato paste 22 b(4*3kg tin)	4,583	1,833	2,750	9,167	293,333
White vinegar 60	33,000	13,200	19,800	66,000	930,600
Mango juice 250ml	88,000	35,200	52,800	176,000	3,872,000
Guava juice 250 ml	33,000	13,200	19,800	66,000	1,320,000
Chili paste	27,500	11,000	16,500	55,000	2,200,000
Ketchup 340 g	7,200	2,880	4,320	14,400	388,800
Mayonnaise 340 g	7,200	2,880	4,320	14,400	561,600
Special sauces	7,200	2,880	4,320	14,400	720,000
Total Annual Return					13,605,451

Exchange rate (1 US$= 6.50 LE)

* All prices are calculated on *Factory Gate* basis (weighted average for the target markets)

* Primary Market is USA
Secondary Markets are Maghreb, COMESA, and GCC Markets

[illegible]

Ceaam Variable Cost

Year 1: Raw Material Requirements

Product	Raw Material Requirements Ton/year	Value LE	Production Capacity (Ton/Year) Ton/Day	Ton/Year
Tomato fresh	3,300.0	660,000.00	75.0	90 days
Mango fresh fruit	200.0	400,000.00	36.0	90 days
Guava fresh fruit	120.0	48,000.00	40.0	90 days
Chili pepper	500.0	500,000.00		
Sugar	160.0	283,200.0		
Vinegar 11°	320.0	310,000.0		
Tomato paste hot break 36	15.0	48,000.0		
Total	4,615.0	2,249,200.0		

Year 1: Additives

	Additives (Kg)	LE/Ton	Volume (Ton)	Total Cost
Tomato paste 22 b(12*380 gr)	25.50	22.80	550	12,540.00
Tomato paste 22br(48*6 oz.tin)	25.50	22.80	0	0.00
Tomato paste 22 b(4*3kg tin)	25.50	22.80	100	2,280.00
White vinegar 6	-	0.0	720	0.00
Mango juice 250ml	5.00	153.0	1,000	153,000.00
Guava juice 250 ml	3.50	73.00	375	27,375.00
Chili paste	170.00	1,114.00	450	501,300.00
Ketchup 340 g	300.00	610.00	49	29,829.00
Mayonnaise 340 g	88.00	1,418.00	49	69,482.00
Special sauces	88.00	1,418.00	50	70,900.00
Total	731.00	4,554.40	3,343	856,706.00

Year 1: Packaging Material Cost (LE)

	Type	Volume (Ton)	Number of Packs	Cost/Pack.	Paking Co	Carton No.	Cost/Carto	Carton Cost
Tomato paste 22 b	Glass jar	550	1,447,368.42	0.420	607,895	120,614.04	0.39	47,039.47

Tomato paste 22br(48*6 oz.tin)	Can 170 gm							
Tomato paste 22 b(3kg tin)	Tinplate can	100	33,333.33	2.000	66,667	8,333.33	0.39	3,250.00
White vinegar 6O	PET bottle	720	720,000.00	0.580	417,600	60,000.00	0.39	23,400.00
Mango juice 250ml	Glass Bottles	1,000	3,846,153.85	0.375	1,442,308	30,000.00	0.39	11,700.00
Guava juice 250 ml	Glass Bottles	375	1,442,307.69	0.375	540,865	60,096.15	0.39	23,437.50
Chili paste 380gm	Glass jar	450	1,184,210.53	0.395	467,763	49,342.11	0.57	19,243.42
Ketchup 340 g	Glas bottle	49	143,823.53	0.480	69,035	11,985.29	0.47	5,633.09
Mayonnaise 340 g	Glass jar	49	144,117.65	0.395	56,926	12,009.80	0.43	5,164.22
Special sauces	Glass jar	50	147,058.82	0.420	61,765	12,254.90	0.47	5,759.80
Total Packaging Cost			9,108,373.82		3,730,824	364,635.63		144,627.50

Cesam Basic Assumptions of Production

Year 2: Raw Material Requirements

Product	Ton/year	Value LE	Production Capacity (Ton/Year) Ton/Day	W. Days	Total production Ton/Year	Own use
Tomato fresh	8,800.0	1,760,000.00	80.0	110	1,865	1,865
Mango fresh fruit	1,620.0	3,240,000.00	36.0	45	1,000	250
Guava fresh fruit	1,440.0	576,000.00	48.0	30	1,000	250
Sugar	176.0	311,520.0				
Vinegar 11^0	352.0	341,000.0				
Tomato paste hot break 36	18.0	57,600.0				
Total	12,406.0	6,286,120.0				

Year 2: Additives Cost (LE)

	Additives (Kg)	LE/Kg	Volume (Ton)	Total cost		
Tomato paste 22 b(12*380 gr)	25.50	22.80	630	14,364.00		
Tomato paste 22br(48*6 oz.tin)	25.50	22.80	150	3,420.00		
Tomato paste 22 b(4*3kg tin)	25.50	22.80	110	2,508.00		
White vinegar 6	-	0.0	792	0.00		
Mango juice 250ml	5.00	153.0	1,100	168,300.00	949	0.66
Guava juice 250 ml	3.50	73.00	413	30,112.50		0.16
Chili paste	170.00	1,114.00	500	557,000.00		0.12

Ketchup 340 g	300.00	610.00	59	35,794.80	0.06
Mayonnaise 340 g	88.00	1,418.00	59	83,378.40	1
Special sauces	88.00	1,418.00	60	85,080.00	
	731.00	4,864.40	3,872	979,957.70	

Year 2: Packaging Material Cost (LE)

	Type	Volume (Ton)	Number of Packs	Cost/Pack.	Paking Co	Carton No.	Cost/Carto	Carton Cost
Tomato paste 22 b	Glass jar	630	1,657,894.74	0.420	696,316	138,157.89	0.39	53,881.58
Tomato paste 22br(48*6 oz.tin)	Can 170gm	150	882,352.94	0.450	397,059	18,382.35	1.20	22,058.82
Tomato paste 22 b(3kg tin)	Tinplate can	110	36,666.67	2.000	73,333	9,166.67	0.39	3,575.00
White vinegar 6O	PET bottle	792	792,000.00	0.580	459,360	66,000.00	0.39	25,740.00
Mango juice 250ml	Glass Bottles	1,100	4,230,769.23	0.375	1,586,538	33,000.00	0.39	12,870.00
Guava juice 250 ml	Glass Bottles	413	1,586,538.46	0.375	594,952	66,105.77	0.39	25,781.25
Chili paste 380gm	Glass jar	500	1,315,789.47	0.395	519,737	54,824.56	0.57	21,381.58
Ketchup 340 g	Glas bottle	59	172,588.24	0.480	82,842	14,382.35	0.47	6,759.71
Mayonnaise 340 g	Glass jar	59	172,941.18	0.395	68,312	14,411.76	0.43	6,197.06
Special sauces	Glass jar	60	176,470.59	0.420	74,118	14,705.88	0.47	6,911.76
Total Packaging Cost			11,024,011.51		4,552,567	429,137.24		185,156.76

BEST AVAILABLE COPY

Total Cost (LE)
654,934

69,917
441,000
1,454,008
564,303
487,007
74,668
62,091
67,525
3,875,452

to sell
0
750
750

BEST AVAILABLE COPY

Total Cost (LE)
750,197
419,118
76,908
485,100
1,599,408
620,733
541,118
89,602
74,509
81,029
4,737,724

BEST AVAILABLE COPY

Seasonal Production Plan & Running Cost

Recurrent Inputs (Year One)

Cost Item (LE)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Raw Material (LE)	0	0	0	0	374,867	374,867	374,867	374,867	374,867	374,867	0	0
Additives (LE)	72,226	72,226	72,226	72,226	72,226	72,226	72,226	72,226	72,226	72,226	72,226	72,226
Filling & Packaging Materiak	322,954	322,954	322,954	322,954	322,954	322,954	322,954	322,954	322,954	322,954	322,954	322,954
Direct labor (LE)	16,869	16,869	16,869	16,869	16,869	16,869	16,869	16,869	16,869	16,869	16,869	16,869
Power Consumption (LE)	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623
Water Consumption (LE)	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623	5,623
Sales & Marketing (LE)	30,717	30,717	30,717	30,717	30,717	30,717	30,717	30,717	30,717	30,717	30,717	30,717
Research & Development (L	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167
General & Administrative (LE	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667
Admin. Salaries (LE)	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223
Maintenance (LE)	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829
Insurance (LE)	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829
Other (LE)												
Total (LE)	583,726	583,726	583,726	583,726	958,593	958,593	958,593	958,593	958,593	958,593	583,726	583,726

Recurrent Inputs (Year Two)

Cost Item	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Raw Material (LE)	0	0	0	0	2,095,373	2,095,373	2,095,373	0	0	0	0	0
Additives (LE)	81,663	81,663	81,663	81,663	81,663	81,663	81,663	81,663	81,663	81,663	81,663	81,663
Filling & Packaging Materiak	394,810	394,810	394,810	394,810	394,810	394,810	394,810	394,810	394,810	394,810	394,810	394,810
Direct labor (LE)	47,146	47,146	47,146	47,146	47,146	47,146	47,146	47,146	47,146	47,146	47,146	47,146
Power Consumption (LE)	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715
Water Consumption (LE)	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715	15,715
Sales & Marketing (LE)	500	500	500	500	500	500	500	500	500	500	500	500
Research & Development (L	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167
General & Administrative (LE	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667	16,667
Admin. Salaries (LE)	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223	67,223
Maintenance (LE)	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829
Insurance (LE)	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829	20,829
Other (LE)												
Total	685,265	685,265	685,265	685,265	2,780,638	2,780,638	2,780,638	685,265	685,265	685,265	685,265	685,265

Recurrent Inputs by Product Year 1.

Product	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Tomato Paste												
Raw Material	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345	18,345
Other	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090	62,090
Vinegar												
Raw Material	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321	20,321
Other	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777	68,777
Juices												
Raw Material	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808	38,808
Other	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344	131,344
Chili Paste												
Raw Material	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701	12,701
Other	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985	42,985
Ketchup, Mayon., &Sauces												
Raw Material	97,259	97,259	97,259	97,259	97,259	97,259	97,259	97,259	97,259	97,259	97,259	97,259
Other	329,173	329,173	329,173	329,173	329,173	329,173	329,173	329,173	329,173	329,173	329,173	329,173

Recurrent Inputs by Product Year 2.

Product	18345.38	18345.38	18345.38	18345.38	18345.37971	18345.38	18345.38	18345.38	18345.38	18345.38	18345.38	18345.38
Tomato Paste												
Raw Material	17,067	17,067	17,067	17,067	17,067	17,067	17,067	17,067	17,067	17,067	17,067	17,067
Other	66,838	66,838	66,838	66,838	66,838	66,838	66,838	66,838	66,838	66,838	66,838	66,838
Vinegar												
Raw Material	18,927	18,927	18,927	18,927	18,927	18,927	18,927	18,927	18,927	18,927	18,927	18,927
Other	74,036	74,036	74,036	74,036	74,036	74,036	74,036	74,036	74,036	74,036	74,036	74,036
Juices												
Raw Material	36,146	36,146	36,146	36,146	36,146	36,146	36,146	36,146	36,146	36,146	36,146	36,146
Other	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387
Chili Paste												
Raw Material	11,829	11,829	11,829	11,829	11,829	11,829	11,829	11,829	11,829	11,829	11,829	11,829
Other	46,272	46,272	46,272	46,272	46,272	46,272	46,272	46,272	46,272	46,272	46,272	46,272
Ketchup, Mayon., &Sauces												
Raw Material	90,587	90,587	90,587	90,587	90,587	90,587	90,587	90,587	90,587	90,587	90,587	90,587
Other	354,343	354,343	354,343	354,343	354,343	354,343	354,343	354,343	354,343	354,343	354,343	354,343

MONTHLY ASSUMPTIONS No. 1 - SALES & FINISHED GOODS INVENTORY TARGETS

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
	Set cells below to zero if not entering seasonal assumptions												
3-year seasonal indices ->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Sales - Product A (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 1a <<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subgroup 1b <<->>													
Subgroup 1c <<->>													
Subgroup 1d <<->>													
Subgroup 1e <<->>													
Total sales - Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Product B (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 2a <<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subgroup 2b <<->>													
Subgroup 2c <<->>													
Subgroup 2d <<->>													
Subgroup 2e <<->>													
Total sales - Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Product C (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 3a <<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subgroup 3b <<->>													
Subgroup 3c <<->>													
Subgroup 3d <<->>													
Subgroup 3e <<->>													
Total sales - Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Product D (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 4a <<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subgroup 4b <<->>													
Subgroup 4c <<->>													
Subgroup 4d <<->>													
Subgroup 4e <<->>													
Total sales - Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Service A (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 5a <<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subgroup 5b <<->>													
Subgroup 5c <<->>													
Subgroup 5d <<->>													
Subgroup 5e <<->>													
Total sales - Product E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Service B (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 6a <<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subgroup 6b <<->>													
Subgroup 6c <<->>													
Subgroup 6d <<->>													
Subgroup 6e <<->>													
Total sales - Product F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Service C (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 7a <<->>													
Subgroup 7b <<->>													
Subgroup 7c <<->>													
Subgroup 7d <<->>													
Subgroup 7e <<->>													
Total sales - Product G	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Service D (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 8a <<->>													
Subgroup 8b <<->>													
Subgroup 8c <<->>													
Subgroup 8d <<->>													
Subgroup 8e <<->>													
Total sales - Product H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales - Exports (000s units or $000):	Use either sales volumes or turnover values throughout this group												
Subgroup 9a <<->>													
Subgroup 9b <<->>													
Subgroup 9c <<->>													
Subgroup 9d <<->>													
Subgroup 9e <<->>													
Total sales - Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Sales - Spares (000s units or $000): Use either sales volumes or turnover values throughout this group

Subgroup 10a	<<->>													
Subgroup 10b	<<->>													
Subgroup 10c	<<->>													
Subgroup 10d	<<->>													
Subgroup 10e	<<->>													
Total sales - Spares		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Net selling prices ($/unit): Set cells below to 1.0 unless using sales units

- Product A	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	->>													
- Service D	->>													
- Exports	->>													
- Spares	->>													

Total sales ($000): Note: These values will not be reflected in cashflow projections until credit terms have been specified in sheet M_B

- Product A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product IE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product IF		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product IG		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product IH		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares														
Total sales ($000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bad debts as % sales	->>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Desired finished inventory as % sales for X months ahead X = 0 to 4 — Set cells below to zero unless manufacturer with finished inventories

- Product A	<<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	<<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	<<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	<<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	<<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	<<->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	<<->>													
- Service D	<<->>													
- Exports	<<->>													
- Spares	<<->>													

Desired finished inventory (000s) units or equivalent sales value in $000): Set opening values to zero unless manufacturer with finished inventories

		Opening													
- Product A	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	->>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D	->>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports	->>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares	->>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Data & Calculations:

MONTHLY ASSUMPTIONS No. 2 - COST OF MATERIALS/GOODS, INVENTORY & PURCHASES

Year		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
		Set cells below to zero if not entering seasonal assumptions												
3-year seasonal indices	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Finished goods required (in units or equivalent sales value in 2000$):														
- Product A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C		11.0	(4.9)	4.9	(1.6)	1.6	(1.6)	1.6	0.0	(1.6)	1.6	(1.6)	1.6	0.0
- Service D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unit cost of materials/packaging or goods for resale (2003/unit, or 2003 0.xx if units not used):		Set cells below to zero only if a 'pure' services business												
- Product A	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Product B	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Product C	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Product D	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Service A	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Service B	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Service C	->>													
- Service D	->>													
- Exports	->>													
- Spares	->>													
Cost of materials/packaging or goods required (2000$):														
- Product A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Desired inventory of materials/packaging or goods for resale (2000$):	Opening	Targets ->>	Set cells below to zero if a 'pure' services business. Total values will be included in monthly balance sheets											
- Product A	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	->>													
- Service D	->>													
- Exports	->>													
- Spares	->>													
Total inventory (2000$):	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchases of materials/packaging & goods for resale (2000$):		Note: These values will not be reflected in cashflow projections until credit terms have been specified in sheet M_B												
- Product A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D		#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares		#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total purchases (2000$):		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Data & Calculations:

MONTHLY ASSUMPTIONS No. 3 - DIRECT LABOR, OTHER DIRECT COSTS & COST OF SALES

Set cells below to zero if not applicable against assumptions

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
0-year constant factor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Try to allocate direct/variable headcount between groups, irrespective of type of business

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Direct labor (Persons):													
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C													
- Service D													
- Exports													
- Spares													
Total direct labor (Persons)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales/output per direct person (in units or equivalent value value in [illegible]):													
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C													
- Service D													
- Exports													
- Spares													
Overall sales per direct person ([illegible])	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Include wages, bonuses, overtime and all other overall costs & taxes

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Average payroll & benefits cost ([illegible]):													
- Product A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Product B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Product C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Product D	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Service A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Service B	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
- Service C													
- Service D													
- Exports													
- Spares													
Direct payroll/benefit costs ([illegible]):													
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total direct payroll/benefit costs ([illegible])	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

The variable descriptions in blue can be changed

Try to include direct/variable costs here, irrespective of type of business

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Other direct costs ([illegible]):													
-Utilities (variable) <<<>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Repairs/maintenance (variable) <<<>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Subcontract <<<>													
-Consumables A <<<>													
-Consumables B <<<>													
-Consumables C <<<>													
-Consumables D <<<>													
-Consumables E <<<>													
-Consumables F <<<>													
-Consumables G <<<>													
-Consumables H <<<>													
Total other direct costs ([illegible])	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Breakdown of other direct costs on the basis of direct payroll/benefit costs (or value) ([illegible]):													
- Product A	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares	0.0	0.0	#VALUE!	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total cost of materials & goods for resale, direct payroll/benefit and other direct costs to cover projected requirements ([illegible]):													
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total direct costs ([illegible])	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Direct cost per unit ([illegible], or [illegible] if sales not used):													
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C													

- Service D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Finished goods inventory (20030):	Opening	Set opening values to zero unless manufacturer with finished inventories. Total values will be included in monthly balance sheets												
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total finished goods invento	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cost of sales (20030):														
- Product A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total cost of sales (20030)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Data & Calculations:

MONTHLY ASSUMPTIONS No. 4 - OVERHEAD EXPENSES

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
		Set cells below to zero if not entering seasonal assumptions												
5-year seasonal index	->>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Use the cells below to accommodate semi-variable and indirect operating costs												
Operational (indirect) expenses (20000):														
-Indirect labor (Persons)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Indirect payroll/benefits (20000/persons)	->>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-Supervisory (Persons)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Supervisory payroll/ben X = 0 to 4		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-Repairs & maintenance 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Power (fixed) 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Cleaning 1	<<>>													
-Utilities (fixed) 1	<<>>													
-Miscellaneous indir 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total operational expenses (20000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		The variable descriptions in blue can be changed												
Selling & freight expenses X = 0 to 4														
-Freight expenses as % sales	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Selling exp & comm as % sales	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Sales and marketing staff (Persons)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Sales payroll/benefits (20000/persons)	->>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-Freight expenses		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Selling expenses/other X = 0 to 4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Advertising & boot 2	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Special promotion 2	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Special promotion 2	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Special promotion 2	<<>>													
-Special promotion 2	<<>>													
-Special promotion 2	<<>>													
-Travel expenses 2	<<>>													
-Public relations, ad 2	<<>>													
-Miscellaneous selli 2	<<>>													
Total selling & freight expenses (20000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Management/administration staff expenses:														
-Clerical staff (Persons)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Clerical payroll/benefits (20000/persons)	->>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-Management staff (Persons)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Management payroll/benefits (20000/persons)	->>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total management/admin staff expenses (200		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		The variable descriptions in blue can be changed												
Research & development														
-Staff (Persons)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Staff payroll/benefits (2 X = 0 to 4		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-Consultancy 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Materials 1	<<>>													
Total Research & development (20000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		The variable descriptions in blue can be changed												
Administration expenses X = 0 to 4														
-Office supplies etc 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Mail, telephone, tel 2	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Travel 2	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Pensions 2	<<>>													
-Computer supplies 2	<<>>													
-Vehicle expenses 2	<<>>													
-Other administrativ 2	<<>>													
-Other administrativ 2	<<>>													
-Other administrativ 2	<<>>													
-Other administrativ 2	<<>>													
-Other administrativ 2	<<>>													
Total administration expenses (20000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		The variable descriptions in blue can be changed												
Occupancy/general exp X = 0 to 4														
-Utilities 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Rent & property tax 2	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Professional fees & 1	<<>>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Insurance 1	<<>>													
-Other establish exp 1	<<>>													
-Other establish exp 2	<<>>													
-Other establish exp 3	<<>>													
-Other establish exp 1	<<>>													
-Other establish exp 1	<<>>													
-Other establish exp 1	<<>>													
Total occupancy/general expenses (20000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total overhead expenses (20000)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Data & Calculations:

MONTHLY ASSUMPTIONS No. 5 - FIXED ASSETS

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP 2,004.0	NOV	DEC	Total
Land, buildings & improvements <<-	Opening	These values will be inserted into the monthly balance sheets											
Cost or valuation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated depreciation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation rate (% pa)	->> 0.0 <<-												
Base depreciation on cost (enter 0) or use double declining balance (enter 1)	->> Enter 0 or 1												
Depreciation for period (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	X = 0 to 4	After entering capital expenditure, press F9 to update cost of the fixed assets above											
Capital expenditure (2003B)	0 <<->>	0.0											
Disposal of Land, buildings & improvements (2003B):		Set cells below to zero if no fixed asset sales in this category											
-Proceeds	->>												
-Cost	->>												
-Accumulated depreciation	->>												
Plant & machinery <<-	Opening	These values will be inserted into the monthly balance sheets											
Cost or valuation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated depreciation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation rate (% pa)	->> 0.0 <<-												
Base depreciation on cost (enter 0) or use double declining balance (enter 1)	->> 0.0 Enter 0 or 1												
Depreciation for period (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	X = 0 to 4	After entering capital expenditure, press F9 to update cost of the fixed assets above											
Capital expend and lease (2003B)	0 <<->>	0.0											
		Set cells below to zero if leasing is not being used to acquire fixed assets in this category											
New leases (2003B)	->>				0.0								
Interest on new leases (2003B)	->>					0.0			0.0		0.0		
Repayments of new leases (2003B)	->>					0.0			0.0		0.0		
Disposal of Plant & machinery (2003B):		Set cells below to zero if no fixed asset sales in this category											
-Proceeds	->>											0.0	
-Cost	->>											0.0	
-Accumulated depreciation	->>											0.0	
Computers & equipment <<-	Opening	These values will be inserted into the monthly balance sheets											
Cost or valuation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated depreciation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation rate (% pa)	->> 0.0 <<-												
Base depreciation on cost (enter 0) or use double declining balance (enter 1)	->> 0.0 Enter 0 or 1												
Depreciation for period (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	X = 0 to 4	After entering capital expenditure, press F9 to update cost of the fixed assets above											
Capital expend and lease (2003B)	0 <<->>	0.0											
		Set cells below to zero if leasing is not being used to acquire fixed assets in this category											
New leases (2003B)	->>				0.0								
Interest on new leases (2003B)	->>	0.0				0.0			0.0		0.0		
Repayments of new leases (2003B)	->>	0.0				0.0			0.0		0.0		
Disposal of Computers & equipment (2003B):		Set cells below to zero if no fixed asset sales in this category											
-Proceeds	->>											0.0	
-Cost	->>											0.0	
-Accumulated depreciation	->>											0.0	
Automobiles, vehicles etc. <<-	Opening	These values will be inserted into the monthly balance sheets											
Cost or valuation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated depreciation (2003B)	->> 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation rate (% pa)	->> 0.0 <<-												
Base depreciation on cost (enter 0) or use double declining balance (enter 1)	->> Enter 0 or 1												
Depreciation for period (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	X = 0 to 4	After entering capital expenditure, press F9 to update cost of the fixed assets above											
Capital expend and lease (2003B)	0 <<->>	0.0											
		Set cells below to zero if leasing is not being used to acquire fixed assets in this category											
New leases (2003B)	->>				0.0								0.0
Interest on new leases (2003B)	->>				0.0			0.0		0.0			
Repayments of new leases (2003B)	->>				0.0			0.0		0.0			
Disposal of Automobiles, vehicles etc. (2003B):		Set cells below to zero if no fixed asset sales in this category											
-Proceeds	->>			0.0									
-Cost	->>			0.0									
-Accumulated depreciation	->>			0.0									
Fixed Asset Summary	Opening												
Cost or valuation (2003B)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accumulated depreciation (2003B)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation for period (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital expenditure (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New leases (2003B/07)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest on new leases (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Repayments of new leases (2003B)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Disposal of fixed assets (2003B):													
-Proceeds		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Cost		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Accumulated depreciation		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Data & Calculations:

MONTHLY ASSUMPTIONS No. 8 - FUNDING, INTEREST RATES & RELATED ITEMS

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Interest														
Interest rates (% pa):														
-Cash at bank	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Short term loans/Line of credit	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Longterm debtbalance	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Int payable on 'other loans' (£000)	->>													
Debt & Loans		Enter all increases and repayments as positive values												
Increase in longterm debtbalance (£000)	->>			0.0						0.0	0.0			
Longterm debtbalance repayments (£000)	->>	0.0			0.0			0.0			0.0			
Increases in 'other loans' (£000)	->>						0.0							
'Other loans' repayments (£000)	->>										0.0			
Leases		Set cells below to zero if no finance leases outstanding												
Leases from prior years (£000):														
-Interest expense	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Repayments	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Allocation of Debt	Opening	Opening values entered via opening balance sheet												
Total longterm debtbalance (£000)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total 'other loans' (£000)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total leases (£000)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Repayments payable within one year:	Opening	On first use, set cells below to zero and review later												
-Longterm ->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Other loa ->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-Leases (e ->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Venture Bank														
Venture bank loans (£000)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating loan repayments (£000)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intangible asset amortisation (£000)	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchases of intangible assets (£000)	->>													
		On first use, set cells below to zero and review later												
Changes (+/-) in accrued expenses (£000)	->>		0.0											
Changes (+/-) in prepaid expenses (£000)	->>	0.0												
Approx % of total payroll costs relating to taxes & benefits for all staff (%)		On first use, set cells below in range 20-40% and review later												
	->>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shares & Shares														
Cash brought (£000)	->>		0.0											0.0
* Set one to zero for sale trader	->>		0.0											
* Set to zero for sale trader	->>	0.0 <<-												
Tax & Dividends	Years:	0	0	0										
* Set to zero for sale trader	->>	0.0	0.0	0.0 <<-	Enter tax payments relating to periods refer to start date of projections in sheet M.B.									
* Set to zero for sale trader (£000)	->>													
X = 0 to 4														
Dividends 1	<<<>>													
Income tax provisions (£000)	->>													
Income tax payments (£000)	->>													

Supplementary Data & Calculations:

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MONTHLY ASSUMPTIONS No. 7 - OPENING BALANCE SHEET ITEMS, RECEIVABLES & PAYABLES

Phasing out of opening balance sheet items*			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP 2,004.0	NOV	DEC	Total
		Opening values entered via opening balance sheet												
		*36 month total for each item must equal opening value in first column, otherwise ERR is indicated in Column B - Press F9 to check												
Accounts receivable (2003$)	->>	0.0	0.0	0.0	0.0									
Accounts payable (2003$)	->>	0.0	0.0	0.0	0.0									
Capital expend. creditors (2003	->>	0.0			0.0									
Payroll taxes/benefits payable (	->>	0.0	0.0											
Income tax payable (2003$)	->>	0.0												
Miscellaneous payables (2003$	->>	25.0												

Collection patterns for payables & receivables over 3 years*		Months of credit given/taken: Under 1	1-2	2-3	3-4	4-5	5-6	Total* %
Accounts payable for material/packaging & goods (% distribution *):								
- Product A	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Product B	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Product C	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Product D	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service A	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service B	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service C	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service D	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Exports	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Spares	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Accounts receivable (% distribution *):								
- Product A	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Product B	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Product C	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Product D	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service A	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service B	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service C	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Service D	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Exports	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
- Spares	->>	0.0	0.0	0.0	0.0	0.0	0.0	100.0
*Total for each row must equal 100%, otherwise an ERROR is indicated - Press F9 to che								100.0

Supplementary Data & Calculations:

MONTHLY ASSUMPTIONS No. 8 - SALES & RELATED TAXES

Specify descriptive term for sales or input/output tax: Sales tax Press F9 to updat
e.g. enter "Sales Tax", "GST" for Goods & Services Tax, "VAT" for Value Added Tax etc.

Set cells below to zero if sales taxes (or other similar taxes) are not applicable

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP 2,004.0	NOV	DEC	Total
Average Sales tax rates on sales (%):												
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C												
- Service D												
- Exports												
- Spares												
Total Sales tax on sales ($000s):												
- Product A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Product D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Service D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
- Spares	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Sales tax on sales ($000s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calculate Sales tax on an invoice (enter 0) or cash-received (enter 1) basis ?	0 Enter 0 or 1											
Mark months when Sales tax paid to State	Enter "1" for each payment month											
	0	0		0		0		0		0		0
Average Sales tax rate for purchases of materials/packaging & goods (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent of all other non-payroll expenses (operating exp etc) subject to Sales tax (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Sales tax rate for non-pay exp (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Sales tax on non-pay expenses ($000s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent of capital expenditure, lease repayments and interest subject to Sales tax (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Sales tax rate for these items (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sales tax on capex & leases less disposals($000s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Supplementary Data & Calculations:

Profitability Planner

Currency values expressed in $000
Data relates to year ending Aug 20[illegible]
See instructions below.

	Value 1	Value 2
Return on total assets (Profitability)	12.7%	-41.4%
Margin on sales	14.6%	-25.8%
Investment turnover	0.9	1.6
Net income before [illegible]	312	(1,040)
Sales	2,136	4,027
Sales	2,136	4,027
Total assets	2,450	2,513

	Value 1	Value 2
Sales	2,136	4,027
Total costs	1,824	5,066
Net fixed assets	1,310	1,268
Net [illegible] assets	15	10
Current assets	1,125	1,235

Sales		Volume		Price		Costs		[illegible]		Current assets	
a	515 / 1,435	Volume	0 / 1,435	Price	0.0 / 1.0	Cost of sales	980 / 2,754	[illegible]	586 / 584	Stock	76 / 161
a	307 / 1,043	Volume	0 / 1,043	Price	0.0 / 1.0	Overhead expenses	835 / 2,354	[illegible]	357 / 341	Inventory	434 / 436
a	537 / 522	Volume	0 / 522	Price	0.0 / 1.0	Net interest expense	5 / 17	[illegible]	257 / 236	Accounts receivable	560 / 570
a	240 / 120	Volume	0 / 120	Price	0.0 / 1.0	Depreciation	42 / 191	[illegible]	110 / 107	Other	55 / 65
a	480 / 240	Volume	0 / 240	Price	0.0 / 1.0	Other items	(47) / (249)				
a	57 / 667	Volume	0 / 667	Price	0.0 / 1.0						
a	0 / 0	Volume	0 / 0	Price	0.0 / 0.0						
[illegible]	0 / 0	Volume	0 / 0	Price	0.0 / 0.0						

	Value		Volume		Price
a	0 / 0	Volume	0 / 0	Price	0.0 / 0.0
a	0 / 0	Volume	0 / 0	Price	0.0 / 0.0

Instructions

1. Compile preliminary first-year projections.
2. Press Update Values button to copy all calculated first-year values (in white cell) into the yellow assumption cells above.
3. Change values in yellow assumption cells individually (or in combinations to take account of interactions). Examples:
   - An increase in sale prices might require an increase in receivables and possible reduction in sales volumes.
   - A substantial increase in sales volumes will require higher cost of sales and might also need additional fixed assets, higher receivables & inventories.
4. Press Recalculate Ratios button to update the profitability projection in the yellow cells.

enter name of your company here

BALANCE SHEET

Assets		
CURRENT ASSETS		
Cash		
Accounts receivable (net)		
Marketable securities		
Inventory		
Other current assets		
TOTAL CURRENT ASSETS		$0
LONG-TERM ASSETS		
Plant & equipment		
Equipment (net of Acc. Depreciation)		
Buildings (net of Acc. Depreciation)		
Land, Other Plant & Equipment		
Intangible Assets		
Copyrights		
Patents		
Goodwill		
Other Intangible Assets		
Investments		
All Other Long-term Assets		
TOTAL LONG-TERM ASSETS		$0
TOTAL ASSETS		$0

LIABILITIES & STOCKHOLDERS EQUITY		
Current Liabilities		
Accounts Payable		
Salaries Payable		
Taxes Payable		
Unearned Revenues (Fees)		
All Other Current Liabilities		
TOTAL CURRENT LIABILITIES		$0
Long-term Liabilities		
Note(s) Payable		
Mortgage(s) Payable		
Bonds Payable		
All Other Long-term Liabilities		
TOTAL LONG-TERM LIABILITIES		$0
TOTAL LIABILITIES		$0
Stockholders Equity		
Preferred stock		
Additional Paid in Capital - PS		
Common stock		
Additional Paid in Capital - CS		
Retained earnings		
Treasury Stock		
All Other Stockholder Equities		
TOTAL STOCKHOLDERS EQUITY		$0
TOTAL LIABILITIES & STOCKHOLDERS EQUITY		$0

OTHER INFORMATION	
Preferred Stock Dividends Paid (total)	
Common Stock Dividends Paid (per share)	
Common Stock Shares Outstanding	
Most Recent Price on Common Stock	
Cash from Operating Activities	
Cash from Investing Activities	
Cash from Financing Activities	

='Financial Statements'!A1:B1

INCOME STATEMENT			
[illegible]			
Sales (net)			
Other Revenues & Gains		Net Sales	
		$0	
[illegible]			
Cost of Goods Sold			
Selling Expense			
Administrative Expense			
Interest Expense			
Taxes Expense			
Other Expenses & Losses			
		Total Expenses	
		$0	
NET INCOME			$0

duPont Analysis

TOTAL CURRENT ASSETS
$0

SALES
$0

ASSET TURNOVER
#DIV/0!

TOTAL ASSETS
$0

TOTAL LONG-TERM ASSETS
$0

TOTAL CURRENT LIABILITIES
$0

RETURN ON INVESTMENT
#DIV/0!

RETURN ON EQUITY
#DIV/0!

TOTAL DEBT
$0

TOTAL LONG-TERM LIABILITIES
$0

DEBT RATIO
#DIV/0!

1 - DEBT RATIO
#DIV/0!

TOTAL ASSETS
$0

TOTAL STOCKHOLDERS EQUITY
$0

Net Sales
$0

NET INCOME
$0

PROFIT MARGIN
ON SALES
#DIV/0!

Total Expenses
$0

SALES
$0

enter name of your company here

Liquidity Ratios

Current Ratio	Current Assets / Current Liabilities	$0 / $0	#DIV/0!
Quick Ratio (Acid Test)	Current Assets - Inventory - Prepaids / Current Liabilities	$0 / $0	#DIV/0!
Current Cash Debt Ratio	Cash Provided by Operating Activities / Current Liabilities	$0 / $0	#DIV/0!

Activity Ratios

Receivables Turnover	Net Sales / Trade Receivables (net)	$0 / $0	#DIV/0!
Inventory Turnover	Cost of Goods Sold / Inventory	$0 / $0	#DIV/0!
Asset Turnover	Net Sales / Total Assets	$0 / $0	#DIV/0!

Profitability Ratios

Profit Margin on Sales	Net Income / Sales	$0 / $0	#DIV/0!
Rate of Return on Assets	Net Income / Total Assets	$0 / $0	#DIV/0!
Rate of Return on Common Equity	Net Income - Preferred Dividends / Common Stockholder's Equity	$0 / $0	#DIV/0!
Earnings Per Share of Common	Net Income - Preferred Dividends / Shares of Common Stock Outstanding	$0 / 0	#DIV/0!
Price Earnings Ratio	Market Price of Common Stock / Earnings Per Share	$0.00 / #DIV/0!	#DIV/0!
Payout Ratio	Cash Dividends per Share of Common / Earnings Per Share	$0.00 / #DIV/0!	#DIV/0!

Coverage Ratios

Debt to Total Assets Ratio	Total Debt / Total Assets	$0 / $0	#DIV/0!
Times Interest Earned	Earnings before Interest and Taxes / Interest Charges	$0 / $0	#DIV/0!
Cash Debt Coverage Ratio	Cash Provided by Operating Activities / Total Liabilities	$0 / $0	#DIV/0!
Book Value per Share	Common Stockholders Equity / Outstanding Shares of Common Stock	$0 / 0	#DIV/0!

enter name of your company here

Fincial Performance Analysis Worksheet

Financial Ratios	Your Company	Industry Standards	Difference	Notes
Liquidity Ratios				
Current Ratio	#DIV/0!			
Quick Ratio (Acid Test)	#DIV/0!			
Current Cash Debt Ratio	#DIV/0!			
Activity Ratios				
Receivables Turnover	#DIV/0!			
Inventory Turnover	#DIV/0!			
Asset Turnover	#DIV/0!			
Profitability Ratios				
Profit Margin on Sales	#DIV/0!			
Rate of Return on Assets	#DIV/0!			
Rate of Return on Common Equity	#DIV/0!			
Earnings Per Share of Common	#DIV/0!			
Price Earnings Ratio	#DIV/0!			
Payout Ratio	#DIV/0!			
Coverage Ratios				
Debt to Total Assets Ratio	#DIV/0!			
Times Interest Earned	#DIV/0!			
Cash Debt Coverage Ratio	#DIV/0!			
Book Value per Share	#DIV/0!			

Supplementary Data & Calculations:

Techmatics Report

Introduction

The data used in this model comes from the Risk Management Association's (RMA) *Annual Statement Studies* book. The *Statement Studies* contains composite financial data prepared under the United States' Generally Accepted Accounting Procedures (GAAP). This financial data is complied and categorized according to Standard Industrial Classification (SIC codes) and was gathered from RMA member financial institutions from all across the United States. It should be noted that collection of this data was not done in a random and statistically reliable method so should only be used as a general guideline and not considered an absolute industry norm. However, with that being said this data is widely used by both financial institutions and academics in the United States as a financial benchmarking tool and is considered to be the best if not the only available source of this type of data in the United States.

The financial statements are shown in common size, with each item a percentage of total sales (turnover), and is separated into three categories; Assets, Liabilities and Income Data. From these financial statements ratios were calculated. For any given ratio, the data was arrayed in order from strongest to weakest and divided into four equal groups, or quartiles. For display purposes three values are shown: the upper quartile, the median and the lower quartile. The upper quartile represents the top performing 25% of companies and is the point at which one quarter of the array of ratios falls between the strongest value and the upper quartile point. The median is the middle value found in the array of ratios at the point were half of the companies performed better and half performed worse. The lower quartile represents the bottom performing 25% of companies and is the point at which one-quarter of the array of ratios falls between the weakest ratio and the lower quartile point.

In this model the data is further segregated into two techmatics reports. The first report lists historical data for the last four years with an average. The second report takes the most current year of data (2001/02) and sorts the financial and ratio data and by a firm's annual turnover.

Model Design: Sparks Companies Inc.
Data Source: The Risk Management Association

Techmatics Report

Expanded SIC Code Descriptions

2033: Canned Fruits, Vegetables, Preserves, Jams & Jellies. Establishments primarily engaged in canning fruits, vegetables, and fruit and vegetable juices; and in manufacturing catsup and similar tomato sauces, or natural imitation preserves, jams, and jellies. (NAICS: 311421)

2034: Dried & Dehydrated Fruits, Vegetables & Soup Mixes. Establishments primarily engaged in sun drying or artificially dehydrating fruits and vegetables, or in manufacturing packaged soup mixes from dehydrated ingredients. (NAICS; 31121, 311423, 311999)

2035: Pickled Fruits & Vegetables, Vegetable Sauces & Seasonings & Salad Dressings. Establishments primarily engaged in the pickling and brining of fruits and vegetables, and in the manufacturing of salad dressings, vegetable relishes, sauces, and seasonings. (NAICS: 311421, 311941)

2037: Frozen Fruits, Fruit Juices & Vegetables. Establishments primarily engaged in freezing fruits, fruit juices, and vegetables. These establishments also produce important by-products such as fresh or dried citrus pulp. (NAICS: 311411)

2099: Food Preparations, Not Elsewhere Classified. Establishments primarily engaged in prepared foods and miscellaneous food specialties, not elsewhere classified, such as baking powder, yeast and other leavening compounds; peanut butter; packaged tea, including instant; ground spices; and vinegar and cider. Also included are dry preparations, except flour mixes, consisting of pasta, rice, potatoes, textured vegetable protein and similar products which are packaged with other ingredients to be prepared and cooked by the consumer. (NAICS: 111998, 311212, 31134, 311423, 311823, 31183, 311911, 31192, 311941, 311942, 311991, 311999)

Model Design: Sparks Companies Inc.

Data Source: The Risk Management Association

Techmatics Report
Ratio Definition

$$\frac{\text{Net Profit + Depreciation, Depletion, Amortization Expenses}}{\text{Current Portion of Long-Term Debt}}$$

The Net Profit + Depr., Dep., amort. / cur. Mat. L/T/D ratio expresses the coverage of current maturities by cash flow from operations. This ratio can also serve as an indicator of a firm's ability to take on additional debt and is a valid measure of the ability to service long term debt.

Model Design: Sparks Companies Inc.
Data Source: The Risk Management Association

Techmatics Report
Four Year Historical Average

2034: Dried & Dehydrated Fruits, Vegetables & Soup Mixes

Item Description	98/99	99/00	00/01	01/02	4 YEAR AVERAGE
Cash & Equivalents	1.6	3.2	2.6	5.0	3.1
Trade Receivables - (net)	20.7	22.8	21.3	21.1	21.5
Inventory	41.5	38.8	41.6	34.2	39.0
All Other Current	2.1	2.9	2.6	1.3	2.2
Total Current	65.9	67.8	68.2	61.6	65.9
Fixed Assets (net)	24.8	22.0	22.6	23.9	23.3
Intangibles (net)	4.5	3.7	5.2	7.4	5.2
All Other Non-Current	4.9	6.5	4.0	7.0	5.6
Total Current	100.0	100.0	100.0	100.0	100.0
Notes Payable-Short Term	16.1	21.0	22.5	17.5	19.3
Current Maturities L/T/D	3.5	2.4	2.0	3.2	2.8
Trade Payables	12.4	14.0	16.6	13.5	14.1
Income Taxes Payable	0.3	0.3	0.3	0.2	0.3
All Other Current	8.6	5.7	5.1	7.2	6.7
Total Current	40.9	43.5	46.5	41.6	43.1
Long Term Debt	16.0	14.2	8.9	15.8	13.7
Deferred Taxes	0.6	0.7	0.7	0.7	0.7
All Other Non-Current	3.4	8.3	12.0	9.1	8.2
Net Worth	39.1	33.3	31.8	32.9	34.3
Total Liabilities & Net Worth	100.0	100.0	100.0	100.0	100.0
Net Sales	100.0	100.0	100.0	100.0	100.0
Gross Profit	29.0	23.0	26.9	26.5	26.9
Operating Expenses	26.3	18.6	24.7	24.1	23.4
Operating Profit	2.6	4.4	2.3	4.4	3.4
All Other Expenses (net)	1.6	2.2	1.8	1.9	1.9
Profit Before Taxes	1.0	2.2	0.5	2.5	1.6

Model Design: Sparks Companies Inc. Data Source: The Risk Management Association

Techmatics Report
Four Year Historical Average

2034: Dried & Dehydrated Fruits, Vegetables & Soup Mixes

Item Description	98/99	99/00	00/01	01/02	4 YEAR AVERAGE
Current (upper quartile)	2.3	2.3	1.8	2.0	2.1
Current (median)	1.7	1.7	1.5	1.5	1.6
Current (lower quartile)	1.2	1.1	1.1	1.2	1.2
Quick (upper quartile)	1.0	1.0	1.0	1.0	1.0
Quick (median)	0.5	0.6	0.5	0.6	0.6
Quick (lower quartile)	0.3	0.3	0.3	0.4	0.3
Sales/Receivables (upper quartile)	12.0	11.7	11.7	14.9	12.6
Sales/Receivables (median)	9.2	8.9	9.1	8.9	9.0
Sales/Receivables (lower quartile)	7.0	6.3	7.3	7.1	6.9
Cost of Sales/Inventory (upper quartile)	4.2	5.4	6.6	8.0	6.1
Cost of Sales/Inventory (median)	2.5	3.7	3.9	3.9	3.5
Cost of Sales/Inventory (lower quartile)	1.8	2.2	1.5	2.2	1.9
Cost of Sales/Payables (upper quartile)	29.1	40.1	25.2	25.6	30.0
Cost of Sales/Payables (median)	14.8	16.8	11.9	15.3	14.7
Cost of Sales/Payables (lower quartile)	5.6	7.0	4.6	7.9	6.3
Sales/Working Capital (upper quartile)	4.2	4.0	5.1	6.2	4.9
Sales/Working Capital (median)	7.3	6.6	9.5	8.3	7.9
Sales/Working Capital (lower quartile)	16.4	17.5	17.3	41.6	23.2
EBIT/Interest (upper quartile)	7.0	8.2	15.7	6.0	9.2
EBIT/Interest (median)	2.8	2.3	1.4	1.7	2.1
EBIT/Interest (lower quartile)	1.2	1.1	0.2	1.0	0.9
Net Profit + Depr., Dep., amort./cur. Mat. L/T/D (upper quartile)	7.4	6.9	N/A	3.9	6.1
Net Profit + Depr., Dep., amort./cur. Mat. L/T/D (median)	2.5	2.8	N/A	1.6	2.3
Net Profit + Depr., Dep., amort./cur. Mat. L/T/D (lower quartile)	1.4	0.4	N/A	1.0	0.9
Fixed/Worth (upper quartile)	0.4	0.0	0.3	0.3	0.3
Fixed/Worth (median)	0.8	0.7	0.5	0.9	0.7
Fixed/Worth (lower quartile)	1.0	2.1	2.7	1.9	1.9
Debt/Worth (upper quartile)	1.0	0.9	0.8	1.1	1.0
Debt/Worth (median)	1.6	3.1	3.5	2.8	2.7
Debt/Worth (lower quartile)	4.0	9.5	9.5	7.3	7.6
% Profit Before Taxes/Tangible net worth (upper quartile)	59.7	43.8	33.1	46.5	45.8
% Profit Before Taxes/Tangible net worth (median)	22.9	26.3	14.1	11.0	18.6
% Profit Before Taxes/Tangible net worth (lower quartile)	2.0	5.3	1.1	-2.1	1.6
% Profit Before Taxes/Total assets (upper quartile)	12.2	14.2	12.2	10.5	12.3
% Profit Before Taxes/Total assets (median)	5.5	5.4	1.9	3.0	4.0
% Profit Before Taxes/Total assets (lower quartile)	0.7	0.6	-3.5	.0	-0.7
Sales/Net Fixed Assets (upper quartile)	48.3	61.9	21.3	22.4	38.5
Sales/Net Fixed Assets (median)	6.5	8.3	8.5	7.2	7.6
Sales/Net Fixed Assets (lower quartile)	3.6	3.2	5.1	3.8	3.9
Sales/Total Assets (upper quartile)	2.1	2.3	2.8	2.7	2.5
Sales/Total Assets (median)	1.5	1.7	1.9	1.7	1.7
Sales/Total Assets (lower quartile)	1.1	0.9	1.1	1.1	1.1

Data Source: The Risk Management Association

Model Design: Sparks Companies Inc.

Techmatics Report
2001/02 Annual Turnover

2034: Dried & Dehydrated Fruits, Vegetables & Soup Mixes

Item Description	Million Dollars of Turnover 0 - 1	1 - 3	3 - 5	5 - 10	10 - 25	25 +
Cash & Equivalents					4.4	4.4
Trade Receivables - (net)					20.3	16.4
Inventory					31.3	36.3
All Other Current					2.2	0.9
Total Current					58.2	58.0
Fixed Assets (net)					24.3	26.3
Intangibles (net)					5.4	10.5
All Other Non-Current					12.1	3.2
Total Current					100.0	100.0
Notes Payable-Short Term					14.5	13.8
Current Maturities L/T/D					2.4	5.1
Trade Payables					16.1	10.9
Income Taxes Payable					0.4	0.0
All Other Current					5.3	5.6
Total Current					38.7	35.5
Long Term Debt					19.1	19.2
Deferred Taxes					0.6	1.0
All Other Non-Current					9.8	5.7
Net Worth					31.8	38.7
Total Liabilities & Net Worth					100.0	100.0
Net Sales					100.0	100.0
Gross Profit					28.3	30.3
Operating Expenses					23.8	23.1
Operating Profit					4.5	7.2
All Other Expenses (net)					1.9	2.0
Profit Before Taxes					2.6	5.2

Model Design: Sparks Companies Inc. Data Source: The Risk Management Association

Techmatics Report
2001/02 Annual Turnover

2034: Dried & Dehydrated Fruits, Vegetables & Soup Mixes

Item Description	Million Dollars of Turnover 0 - 1	1 - 3	3 - 5	5 - 10	10 - 25	25 +
Current (upper quartile)					1.9	2.3
Current (median)					1.5	1.6
Current (lower quartile)					1.1	1.4
Quick (upper quartile)					1.0	0.9
Quick (median)					0.7	0.6
Quick (lower quartile)					0.5	0.4
Sales/Receivables (upper quartile)					14.5	15.1
Sales/Receivables (median)					9.4	10.8
Sales/Receivables (lower quartile)					7.2	8.3
Cost of Sales/Inventory (upper quartile)					8.1	5.7
Cost of Sales/Inventory (median)					4.1	3.9
Cost of Sales/Inventory (lower quartile)					2.4	2.1
Cost of Sales/Payables (upper quartile)					22.1	28.3
Cost of Sales/Payables (median)					8.9	15.3
Cost of Sales/Payables (lower quartile)					7.0	8.7
Sales/Working Capital (upper quartile)					6.7	4.7
Sales/Working Capital (median)					8.4	6.9
Sales/Working Capital (lower quartile)					42.5	13.3
EBIT/Interest (upper quartile)					4.2	9.9
EBIT/Interest (median)					2.8	1.7
EBIT/Interest (lower quartile)					1.0	0.4
Net Profit + Depr., Dep., amort./cur. Mat. L/T/D (upper quartile)						
Net Profit + Depr., Dep., amort./cur. Mat. L/T/D (median)						
Net Profit + Depr., Dep., amort./cur. Mat. L/T/D (lower quartile)						
Fixed/Worth (upper quartile)					0.4	0.5
Fixed/Worth (median)					0.7	1.0
Fixed/Worth (lower quartile)					2.4	1.8
Debt/Worth (upper quartile)					1.0	1.4
Debt/Worth (median)					2.5	2.2
Debt/Worth (lower quartile)					13.7	6.5
% Profit Before Taxes/Tangible net worth (upper quartile)					53.1	65.2
% Profit Before Taxes/Tangible net worth (median)					5.3	34.5
% Profit Before Taxes/Tangible net worth (lower quartile)					-7.6	-6.2
% Profit Before Taxes/Total assets (upper quartile)					6.3	14.5
% Profit Before Taxes/Total assets (median)					3.6	6.0
% Profit Before Taxes/Total assets (lower quartile)					-1.3	-1.9
Sales/Net Fixed Assets (upper quartile)					42.3	7.2
Sales/Net Fixed Assets (median)					9.9	6.0
Sales/Net Fixed Assets (lower quartile)					3.0	3.8
Sales/Total Assets (upper quartile)					2.7	2.2
Sales/Total Assets (median)					1.8	1.6
Sales/Total Assets (lower quartile)					1.1	1.2

Model Design: Sparks Companies Inc. Data Source: The Risk Management Association

BUSINESS PLAN PRO® Manual 2003

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Chapter 2: Getting Started

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Palo Alto Software BUSINESS PLAN PRO® 2003 Manual.

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About this Manual

This manual is one of two books included with BUSINESS PLAN PRO®. The other is 'Hurdle: the Book on Business Planning.' The Hurdle book is very much a part of the product. For years we've positioned the book not as a software manual, but rather a book on business planning. The Hurdle book and this manual go hand-in-hand together, to give you the book on business planning and the manual that offers details about the software. In this manual, some details are obvious: installation, for example. However, it also includes chapters that take you further than ever before:

- The guided tour takes you through the main points and highlights of developing a plan.
- Separate chapters offer details on working with text, tables, charts, and printing. The chapter on tables covers every one of the standard tables in detail - what it does, what inputs it expects, and why.
- A complete chapter on advanced spreadsheet work covers functions and blank worksheets that you can add to your plan.
- Separate chapters on working with Microsoft Office®, Quicken®, and QuickBooks®, including how to import and export, what to expect, when and why to move to or from BUSINESS PLAN PRO®.

Other Help Resources

Tips

Special "tips" that describe key points about the current section.

Help Index

References on how to search the Help Index (built into the software) for step-by-step instructions on using a menu command.

There is also context-sensitive help, text, table, and chart instructions and examples, and row-by-row table help, also built into the product.

Online Changes and Additions List

Once the book goes to print, we will find corrections to make (even after multi-level editing). Also, there may be book sections that will be expanded, other references added, etc. There almost always are. So, to help our customers update their printed manual (and maintain the most current electronic PDF version of the manual), we have created "changes and additions" pages on our website. The list of changes will include the date the correction was made. The additions list will include larger section changes or new information not previously included in the manual. These changes and additions can be found online at:

http://www.paloalto.com/su/bp/anc/

Acknowledgements

This manual was coordinated by Teri Epperly, documentation manager, who also co-authored much of the content with Tim Berry, principal author of BUSINESS PLAN PRO®.

The documentation team also included Cole Bruckner, director of product development, and editors Steve Lange and Jacqueline Mansfield. Steve did most of the design layout and implementation of this manual, and Jacqueline developed the Help files.

BUSINESS PLAN PRO® VS. BUSINESS PLAN PRO® PREMIER

This manual was written for both BUSINESS PLAN PRO and BUSINESS PLAN PRO PREMIER. Features specific to PREMIER have "PREMIER version" added to the title. The following chart gives a comparison between the two versions:

Which BUSINESS PLAN PRO [illegible]	[illegible]	[illegible]
Research it		
More than 400+ complete sample plans	x	x
Thousands of industry profiles	x	x
"Ask the Experts" resource	x	x
Marketing research tools	x	x
Industry data	x	x
Venture Capital database	x	x
Build it		
Complete text editing	x	x
3-dimension automatic charting	x	x
Complete Microsoft Excel-like financials	x	x
Import from QuickBooks® 2003 or newer	x	x
Build an Organization Chart		x
Collaborate with a team		x
Expanded sales forecast		x
Expanded personnel planning resources		x
Expanded profit and loss statements		x
Investment analysis		x
Distribute and Deliver		
Export to Microsoft Office	x	x
Export Plan Components		x
Publish your plan to SecurePlan.com	x	x
Present your plan using Microsoft PowerPoint® templates	x	x
Use the Report Writer to print multiple plan documents	x	x
Preferred format, recognized by banks, lenders, and the SBA	x	x
Save your business plan as a template		x
Import and combine multiple business plans into one		x
Make it Happen		
Legal tools and resources provided by Nolo.com	x	x
Funding tools and resources	x	x
Plan vs. Actual financial management		x
Tools		
Plan Activities	x	x
Forecaster	x	x
Advanced Cash Planning using the Cash Pilot		x

For information on PREMIER upgrades, visit our website at: http://www.paloalto.com/store/bpdupgrade.cfm, or contact the Sales office of Palo Alto Software, Inc. at 1-800-229-7526 Monday through Friday from 8:00 a.m. to 5:00 p.m.

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Installation

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CHAPTER 1: INSTALLATION

This chapter describes how to install BUSINESS PLAN PRO®, *your registration options, and how to obtain product updates from our website.*

Once you've completed this chapter, we recommend you continue with Chapter 2: Getting Started, which gives you an overview of the working screens in the program and its resources.

Also, Chapter 3: Guided Tour, walks you through the process of creating a business plan for a hypothetical graphics company. It gives you a chance to try out the features of the program before you start your own plan.

Installation

Installation will start automatically once the CD is inserted into your computer. Download installation requires a double-click of the Setup.exe file to begin the install.

Check for Adobe® Acrobat® Reader

The InstallWizard will check to see if Adobe Acrobat Reader (4.0 or higher) is already installed on your computer. Acrobat Reader is required before the BUSINESS PLAN PRO® installation can continue. If you don't have Acrobat Reader, the InstallWizard will ask if you wish to install (NOTE: CD-ROM install only; download install does not include this option).

- If you answer Yes, the InstallWizard will start the Acrobat Reader installation. Follow the screen prompts to complete this install. Once completed, you may be instructed to re-boot your computer. If so:
  - Remove the CD-ROM from your computer
  - Re-boot your computer.
  - Put the CD-ROM back into the drive. The InstallWizard will re-start automatically.
- If you answer No, the InstallWizard BUSINESS PLAN PRO installation will stop.

TIPS

What is Adobe Acrobat Reader used for?

Acrobat Reader is used by BUSINESS PLAN PRO to display electronic documentation in portable document format (.pdf). This includes sample plans in the Sample Plan Browser, the BUSINESS PLAN PRO Manual, and Hurdle: The Book on Business Planning.

Check for Microsoft® Internet Explorer®

Internet Explorer (5.5 or higher) is also required to complete the BUSINESS PLAN PRO installation. If you don't have Internet Explorer, the InstallWizard will ask if you wish to install (NOTE: CD-ROM install only; download install does not include this option).

- If you answer Yes, the InstallWizard will start the Internet Explorer installation. Follow the screen prompts to complete this install. Once completed, you must re-boot your computer:
  - Remove the CD-ROM from your computer.
  - Re-boot your computer.
  - Put the CD-ROM back into the drive. The InstallWizard will re-start automatically.
- If you answer No, the InstallWizard BUSINESS PLAN PRO installation will stop.

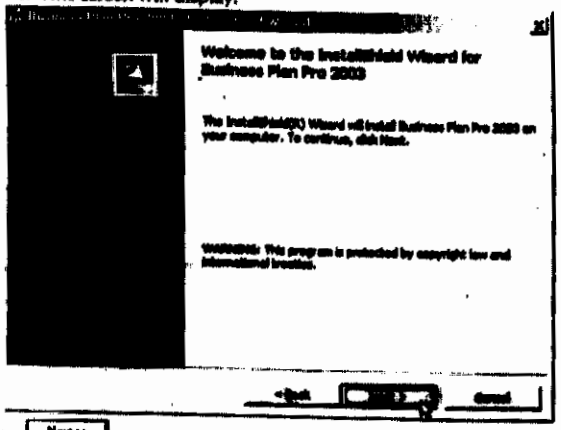
TIPS

What is Microsoft Internet Explorer used for?

BUSINESS PLAN PRO uses specific components of Microsoft Internet Explorer to display information and to manage Internet updates.

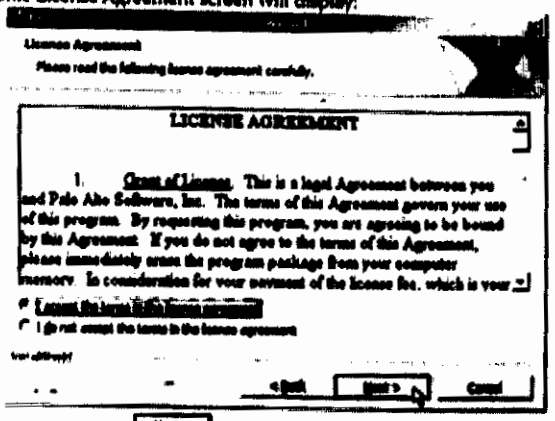
After Adobe Acrobat and Internet Explorer installations are confirmed:

1. The Setup Welcome screen will display:



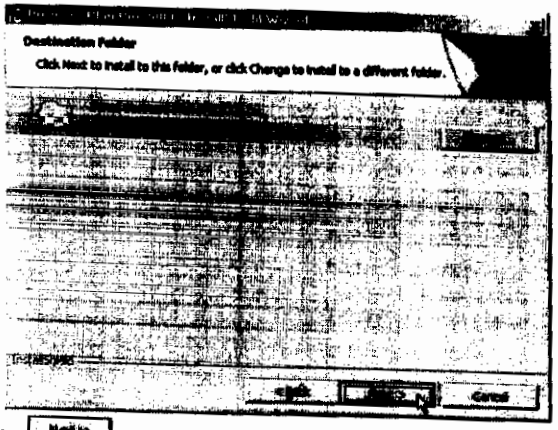
- Click the Next >> button.

2. The Electronic License Agreement screen will display:



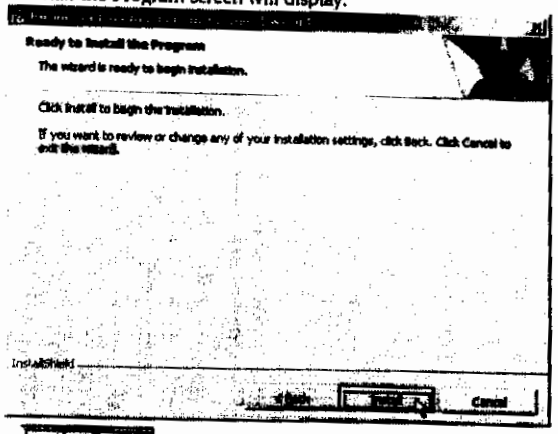
- If you accept, click the Next >> button.

3. The Destination Folder screen will display:



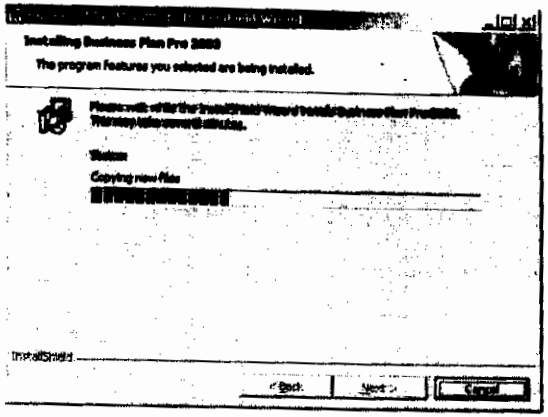
- Click the [Next >] button to continue.

4. The Ready to Install the Program screen will display:

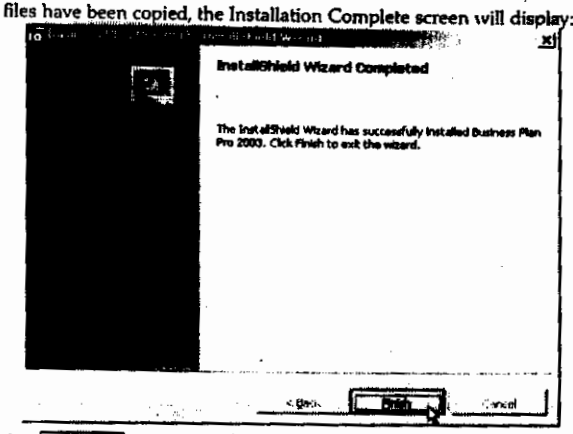


- Click the [Install] button to begin.

5. The program files will be copied:



6. Once the files have been copied, the Installation Complete screen will display:

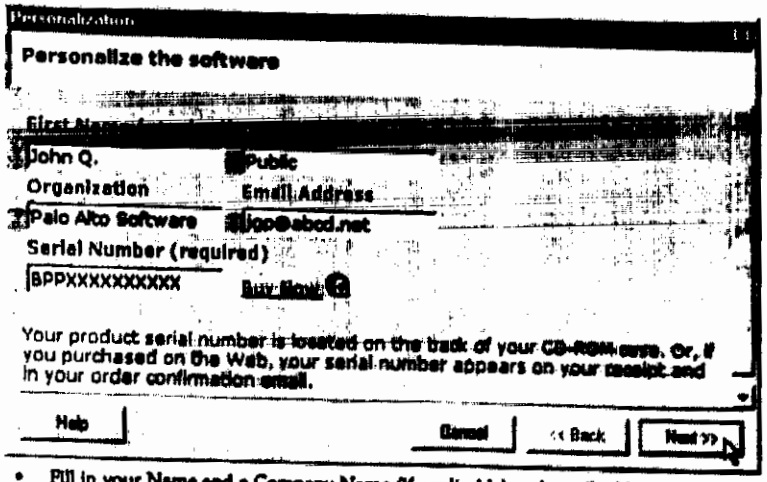


- Click the [Finish] button to close the screen.

This completes your program installation.

Personalize Your Software

When you start BUSINESS PLAN PRO the first time, you will be asked to personalize your software:



- Fill in your Name and a Company Name (if applicable) and email address.
- Type in the serial number (The serial number is located on the back of the CD-ROM case). Use no spaces when typing; type the number 0, not the letter O.
- Click the Next >> button to continue.

You will then be given the option to register your product, as described in the next section.

TIPS

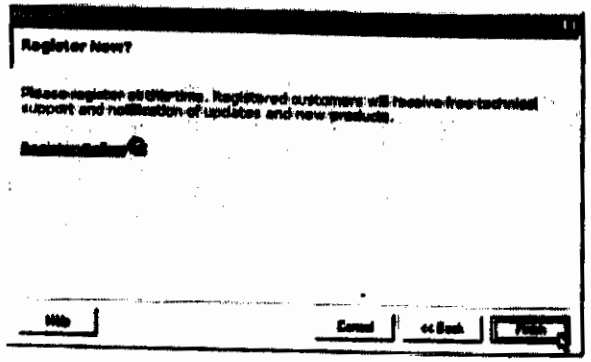
How to Locate Your Serial Number

1. If you purchased from our online store, the serial number was sent via email.
2. If you purchased from a retail store, your serial number is located on the back of the CD-ROM case.

Once you have completed the Personalization step, your serial number and name will display from within BUSINESS PLAN PRO. You can view this information from the Help menu > About ...

Registration

Once your software has been personalized, you're given the option to register online (you will need an Internet connection to use this function):



Follow the prompts and fill in the requested information.

Please register your software. You can register from our website or use the registration card included in the program box. The benefits of registration include notification of software updates, access to special offers, and free technical support.

TIPS

Registration Options

You can access the Register function at any time from the Tools > Register command. In addition to online registration, you can also send it as either a fax or standard mail. See the contact information on the Technical Support page at the end of this chapter.

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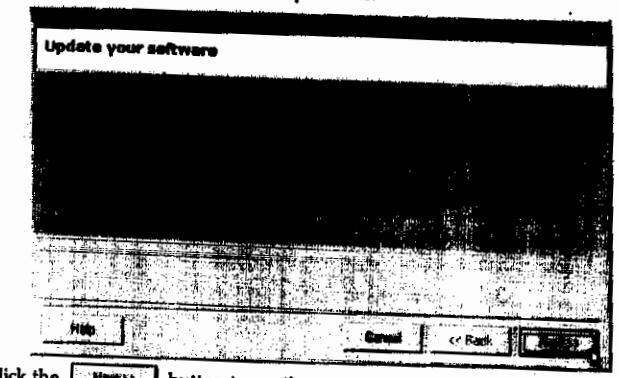
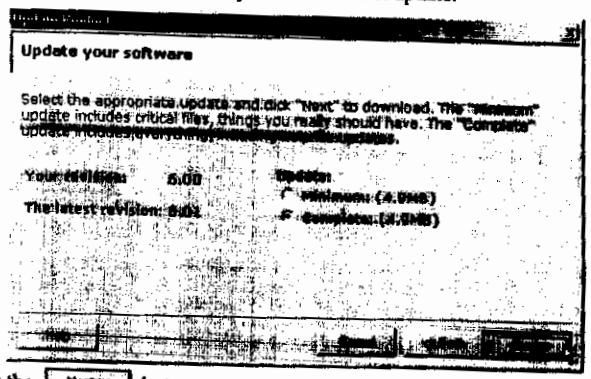
Monthly Product Update

Periodically, we create updates to our program's current version. Updates are free to all registered users. When you install BUSINESS PLAN PRO (and each month thereafter), the Update Product screen will ask if you want to download the update file:



- Click the [Next>>] button to continue.

The installed version number will be compared to the latest update:



- Click the [Next>>] button to continue.

A Progress screen will display showing how much of the download has been completed.

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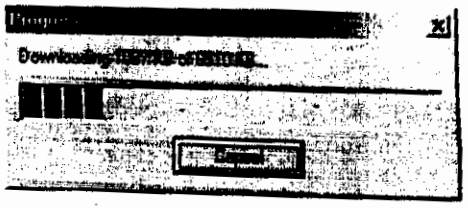
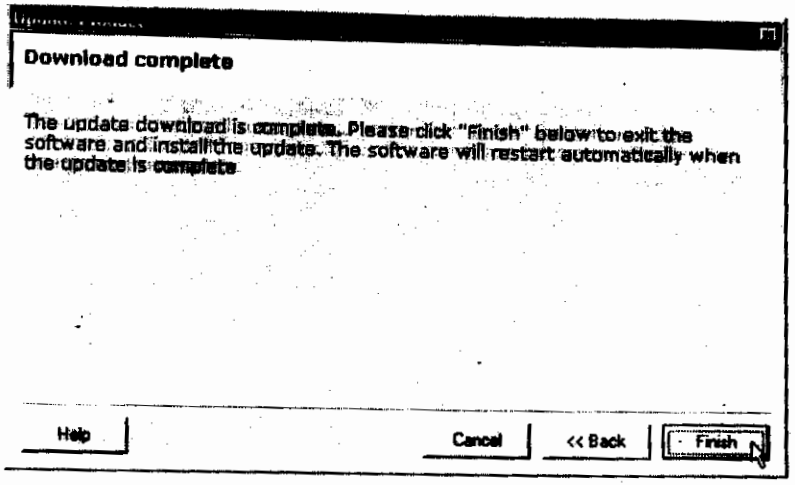


Once the update file has been downloaded, the following screen will display.



- Click the [Finish] button.

The update file will open, and execute the update of your program. We recommend you perform an update each month to assure that you have the latest update for your version.

TIPS

Special Notes about Product Update:

- This function can be accessed at any time from the Tools > Update Product command.
- Product Updates are different from Upgrades. Updates deal with optimizing the current version. An Upgrade is a new version of the program.

Technical Support

We make every effort to provide prompt, professional support for our registered users. Telephone support is available from 8:30 a.m. to 4:30 p.m. (U.S. Pacific time) on normal business days. Email messages and faxes are usually answered within a single working day.

Telephone: 1-641-683-6182

Please be at your computer when you call, have your system on and be ready to work with the software. Have your serial number available.

Fax: 1-641-683-6259

Please make sure your fax number is plainly visible on your fax to us. Unless you specify some other fax number, we will send our response to the fax number that sent the original message.

Email:

Internet: help@paloalto.com

America Online: Paoware

Internet Technical Support

Answers to our most common technical questions can be found at:

http://www.paloalto.com/support.

TIPS

Online Technical Support

The Help > Palo Alto on the Web > Technical Support command provides a direct link to the online Technical Support database, as well as our other website resources.

Support Policies and Philosophy

Our product support offers registered users professional answers, to the best of our ability, to questions regarding the installation, use, and normal operation of our software. Support focuses mainly on operating the software, such as and including installation, opening, saving, and printing. Support does not deal with the contents of a business plan.

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Getting Started

Starting BUSINESS PLAN PRO® 2.3
EasyPlan Wizard® 2.5
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Charts are Automatic 2.8
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Getting Help 2.8

CHAPTER 2: GETTING STARTED

This chapter introduces you to the EasyPlan Wizard®, Text and Table screen modes that you work in, and other resources available in the program.

BUSINESS PLAN PRO® *provides help in many forms throughout the program. These will be described.*

Starting BUSINESS PLAN PRO®

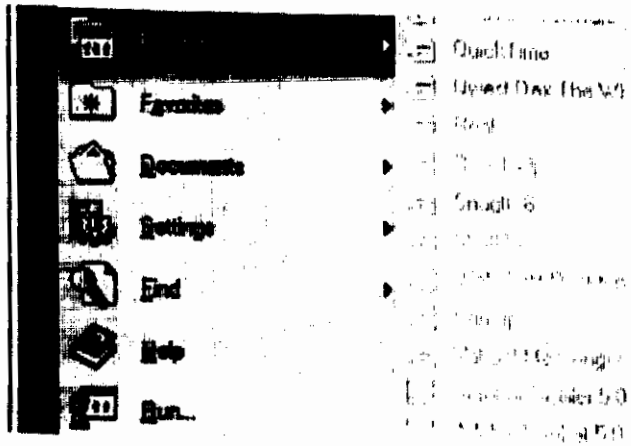
In a standard installation, a shortcut icon will be stored on your computer Desktop area, and a menu link will be created from the Start button. Choose either method to start the program:

Shortcut Icon

Double-click the BUSINESS PLAN PRO icon from the Desktop.

Start menu

1. Click the Start button.
2. Highlight Programs > Palo Alto Software > Business Plan Pro 2003 > Business Plan Pro 2003

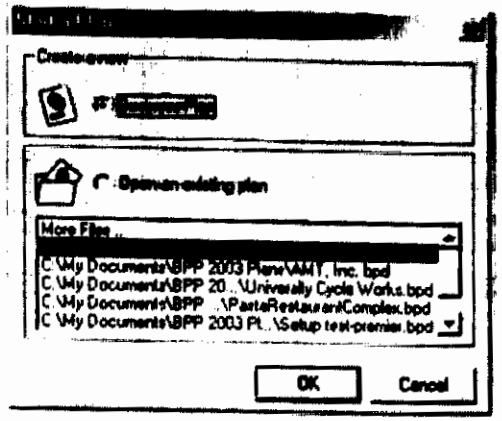


You can use the Windows Start button to access the program menu.

Opening Screen

You start with the opening screen, shown in Figure 2-1.

FIGURE 2-1: START A PLAN SCREEN



From the opening screen, you can create a new plan or open an existing plan.

TIPS

When you're first getting started...

Choose Create a new Business Plan and let the EasyPlan Wizard walk you through each step of the planning process.

Start Options from the Open Screen:

1. Create a new Business Plan: Starts a new plan using the EasyPlan Wizard.
2. Open an existing plan: Lets you choose from your previously-created and saved plan files. A list of files will display in the dialog box. The More Files... option will let you search for files in other directories.

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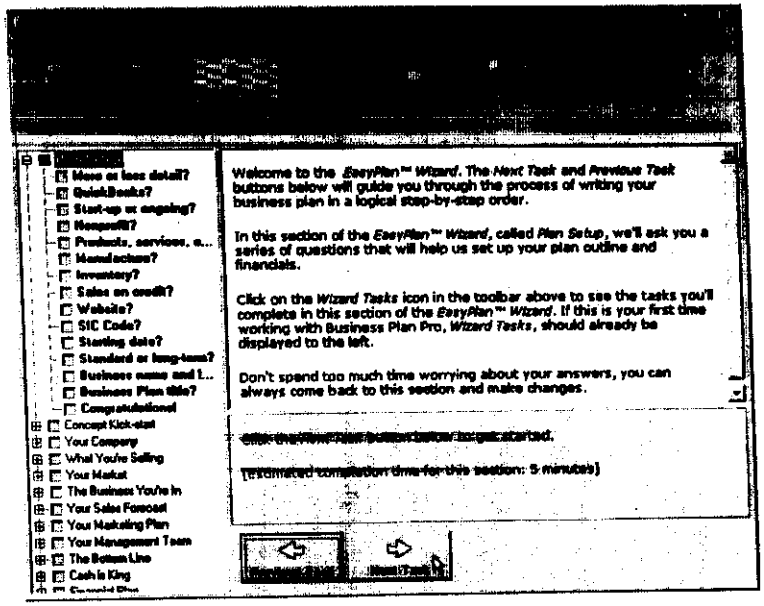
EasyPlan Wizard®

The EasyPlan Wizard is designed to lead you through the entire process of writing your plan. From writing your text to entering numbers into the tables, the EasyPlan Wizard tasks provide a step-by-step process, plus instructions and examples. Figure 2-2 shows the Plan Setup screen.

FIGURE 2-2: EASYPLAN WIZARD® PLAN SETUP SCREEN



Use the *buttons to move through the tasks.*

TIPS

EasyPlan Wizard - Put it to work for you!

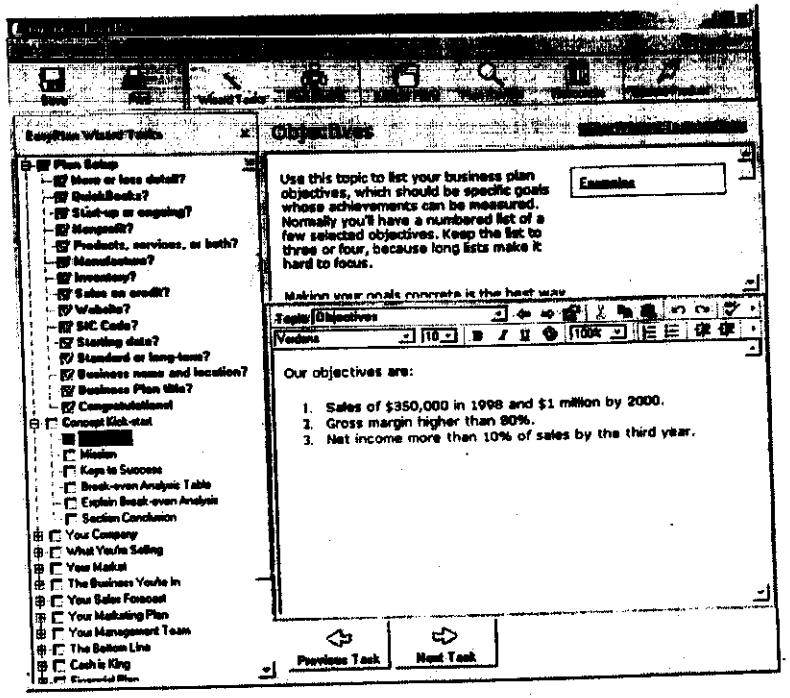
From start to finish, the EasyPlan Wizard is with you all the way. Its screens ask questions, give suggestions, provide Instructions and Examples, as well as feedback as you complete a section of your plan. Think of the EasyPlan Wizard as your personal assistant.

NOTE: Additional information on the EasyPlan Wizard can also be found in Chapter 4: Starting Your Plan.

Working with Text

Much of your business plan is text. The text is organized into text topics. You work on text topics from the Text Mode screen, shown in Figure 2-3.

FIGURE 2-3: TEXT MODE



This example shows Wizard Tasks, Instructions and the text window for the Objectives topic.

TIPS

Instructions and Examples

Instructions for the current topic display automatically. Click the Examples link to show text for the same topic from a completed plan. Example text can also be copied into the current topic.

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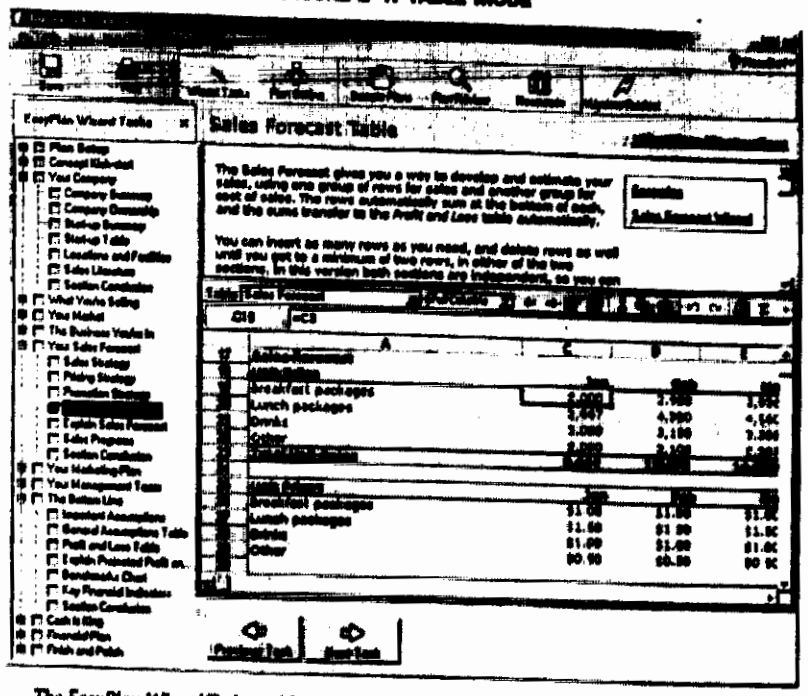
Working in Table Mode

The Table Mode screen is a spreadsheet format, with columns, rows and formulas to automatically calculate totals as you enter your numbers. An example is shown in Figure 2-4.

FIGURE 2-4: TABLE MODE



The EasyPlan Wizard Tasks and Instructions display with the table screen for Sales Forecast.

TIPS

Instructions and Examples

Instructions for the current table display automatically. Click the Examples link to show the same table from a completed plan.

Charts are Automatic

All of the charts in BUSINESS PLAN PRO are automatically linked to tables. When you fill in your tables, your charts will start to show data.

Printing is Automatic

BUSINESS PLAN PRO will print out a plan with an automatic format.

- It merges the text, tables, and charts into a professional-looking format. This includes automatic indenting of paragraphs and formatting of topic titles. Bullet points and numbered lists can be added to your text topics through the formatting toolbar.
- It prints the monthly tables as Appendices.
- It creates a Table of Contents.
- It has a standard cover sheet that you can customize with a company logo and standard text formatting.
- An optional Legal page can be included. Basic text on confidentiality is provided with the template.
- A Print Preview option lets you see the plan document before you print.

For more details on your Print options, please see Chapter 8, Print and Publish, in this manual.

Getting Help

- **EasyPlan Wizard®**

  These screens have built-in "help" throughout. Follow the sequence of steps and let the Wizard show you the way.

- **Context-Sensitive Help**

  - Click on a row in a table, then click the button to see row-specific definitions.
  - When viewing a table in Table Mode, press the F1 key to see help specific to the table.

- **How do I? Help**

  In the top right corner of your screen is the button. Click this button and a list of common questions will display. Select a question and a special pop-up window will display the answer.

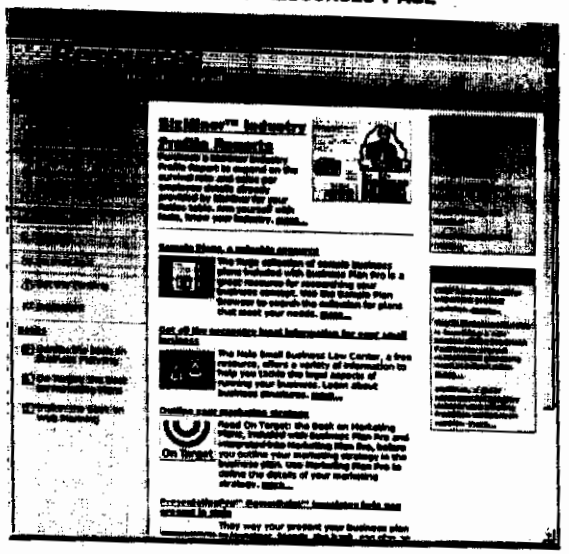
- **Links to Hurdle: The Book on Business Planning**

  Throughout the EasyPlan Wizard screens, there are a number of links to the electronic version of the Hurdle book. This portable document format (PDF) will display the book in a separate window on your screen as an additional reference tool for you.

- **Business Planning Resources**

BUSINESS PLAN PRO has other integrated planning tools and also provides links to Internet resources to help you in developing your plan. Use the Tools > Resources menu or click the button to access these features.

FIGURE 2-5: RESOURCES PAGE



The Resources Page gives you access to many additional tools for building your plan.

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Guided Tour

Tour Overview 3.3
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Practice Working in Table Mode 3.8
Sales Forecast 3.9
Personnel 3.14
Profit and Loss 3.16
Cash Flow 3.19
Start-up Table 3.21
Review Cash Flow after Changes 3.26
Balance Sheet 3.27
More Cash Flow Revisions 3.28
The Rest of the Tables 3.31
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CHAPTER 3: GUIDED TOUR

This Guided Tour will develop a business plan for a hypothetical graphics company. The Tour will give you practice in how to input your text and tables. It will also demonstrate the importance of reviewing your numbers as you develop your plan and making modifications as necessary.

Tour Overview

So, you're just starting BUSINESS PLAN PRO® for the first time? This chapter will help to get you started. The first section is a general overview of the working modes (Text, Table, and Chart). Our Guided Tour will walk you through an example of how to create a business plan. We'll hit the highlights to get you started.

TIPS

Who should take the Tour?

This step-by-step Tour can introduce you to the basics of the program and the process of writing a business plan. If you prefer to start immediately on your own plan, please go to Chapter 4, Starting a Plan.

If you take the Tour, you will work with the following features:

1. Starting BUSINESS PLAN PRO
2. Starting a Plan
   - Introduction to the EasyPlan Wizard®
   - Saving your plan to file
3. Working with Text Topics
   - Navigate between topics
   - Choose a topic from the Plan Outline
   - View Instructions and Examples for a topic
   - Type text for a topic
   - Overview of text formatting
4. Working with Tables
   - Show Row and Column Headings
   - Edit Row Labels
   - Enter numbers in key tables
   - Copy cells across columns
   - View linked tables

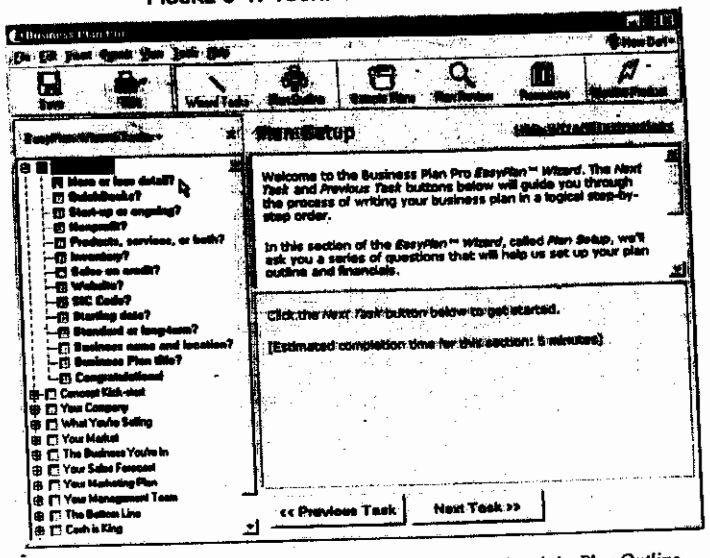
As you create a plan for this hypothetical graphics company, you will also see how (and why) it's important to make adjustments to your table numbers as you develop your plan.

For purposes of this Tour, we will start a new plan using the default EasyPlan Wizard settings.

1. Start BUSINESS PLAN PRO.
2. Choose Create a new > Business Plan from the Opening dialog screen.
3. Click on the Wizard Tasks button to display the EasyPlan Wizard in the left column.

Your screen should look like Figure 3-1.

FIGURE 3-1: TOUR: SET VIEW SETTINGS



As part of this Tour, we will be working with the EasyPlan Wizard and the Plan Outline screens. The tool buttons at the top of the screen let you switch between the Wizard Tasks or the Plan Outline while you work.

TIPS

Start a New Plan—Follow the EasyPlan Wizard

For the purpose of this Tour, we are jumping from text to tables to demonstrate each Mode. However, when you are starting your plan, we recommend that you follow the sequence of the EasyPlan Wizard Tasks.

Choosing default settings for Plan Setup

Each question in the Plan Setup section of the EasyPlan Wizard has a "default" answer. For the purpose of this tour, we will accept all but one of these default settings. The Starting Date will become January, 2003.

- Click the Plan Setup check box. in the EasyPlan Wizard list. This shortcut will automatically choose the default answer for each question.
- Then, select the Starting Date and choose January, 2003.

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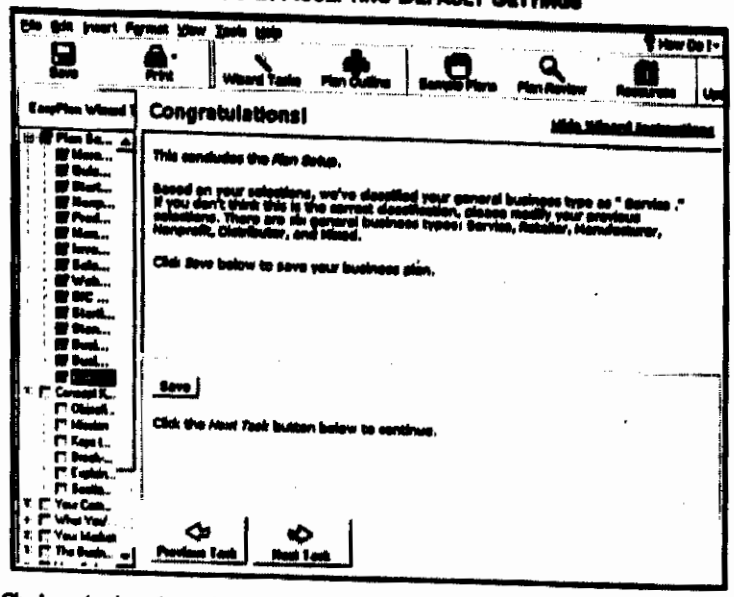
There should now be check marks for each topic in the Plan Setup, as shown in Figure 3-2.

Figure 3-2: Accepting Default Settings



Check marks show that each question in the Plan Setup section has been answered.

Tips

Customized vs. Default EasyPlan Wizard Questions

When starting your own plan, we recommend you read each question and choose the answer that best fits your business type, so the EasyPlan Wizard can create a customized outline and tables. Choose the default if you're not sure how to answer. You can change it later.

Practice Working in Text Mode

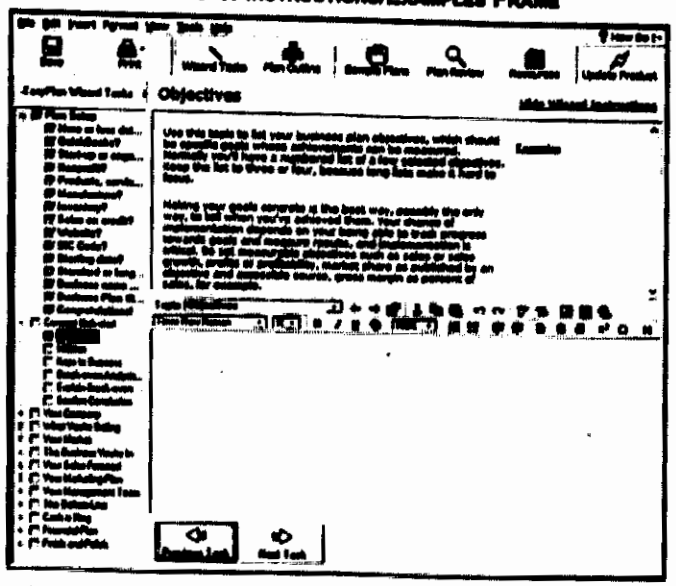
We will type text for our topic called Objectives, create a standard paragraph, and a bullet list.

View Instructions and Examples for this Topic

1. Click on the button to show the EasyPlan Wizard tasks in the left column:
2. Click on Objectives.

The Instructions/Examples frame should now display, as shown in Figure 3-3.

Figure 3-3: Instructions/Examples Frame



Instructions and examples are automatically displayed for each topic, table, and chart.

3. Click on the Examples link to see an example from a completed plan.

Tips

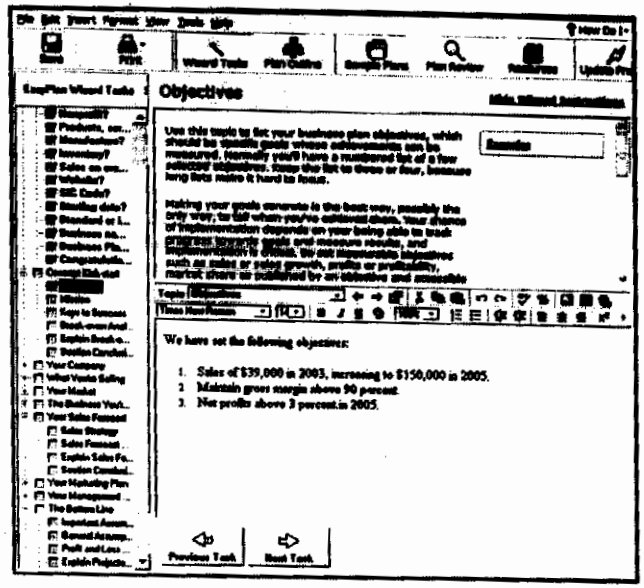
For more information:

Please review Chapter 9: Your Plan Text, to learn more about the working in Text Mode.

Type into Topic Screen

We will now type text for our Objectives topic. Once completed, it will look like Figure 3-4.

FIGURE 3-4: TYPING INTO A TOPIC SCREEN



Let the built-in formatting handle your paragraphs. Use the bullet list and numbered list tools from the toolbar.

Click the mouse into the text window and create the following text with a bullet list:

1. Type: We have set the following objectives:
2. Press the Enter key.
3. Click the numbered list tool from the toolbar and type the following:
   1. Sales of $39,000 in 2003, increasing to $150,000 in 2005. Press Enter.
   2. Maintain gross margin above 90 percent. Press Enter.
   3. Net profits above 3 percent in 2005.
4. Clicking the Previous Task or Next Task buttons will move you along in your plan.

Practice Working in Table Mode

In the next portion of our Tour, we will be working in Table Mode. Follow along with the examples here for an overview of how the tables work.

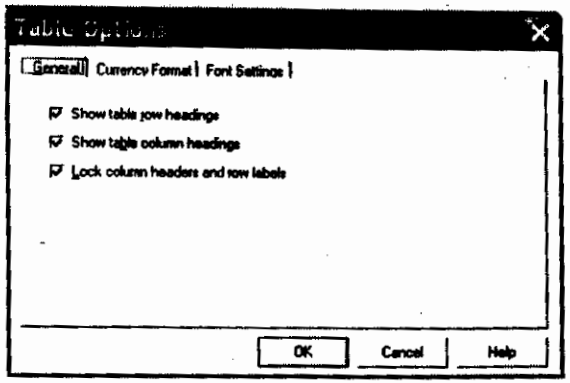
Click View > Tables > Sales Forecast to open the Sales Forecast table.

Setting Table Options

The column headings (A, B, C, etc.) and row headings (1, 2, 3, etc.) should be visible (the program default). If they are not we will use the Tools > Options > Table Options command to show row and column headings along the top and left sides of the spreadsheet:

1. Click on Tools from the menu list at the top of the screen.
2. Select Options > Tables...
3. The Table Options dialog box will display, as shown in Figure 3-5.

FIGURE 3-5: TABLE OPTIONS DIALOG



Showing Column and Row headings shows you the cell locations when working in Table Mode.

4. Check the boxes to show table row and table column headings.
5. Click the OK button to save the setting change.

TIPS

Other Table Options

Currency Format: Select currency type and apply to table and chart formatting.
Font Settings: Lets you change the font style and size for cell input in your table.

Sales Forecast

In the Sales Forecast table, you will learn to create a row label, type in a cell value, and copy that cell number across the row.

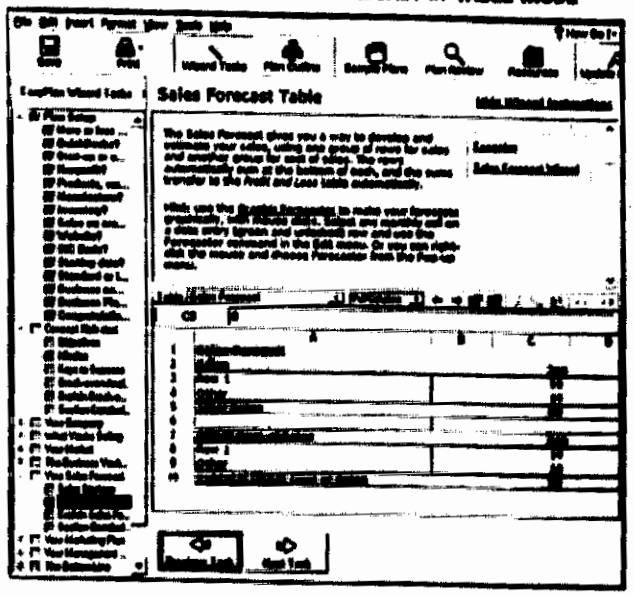
Tips

Sales Forecast Wizard (with Forecaster Tool)

The Sales Forecast Wizard dialog automatically pops up whenever you select the Sales Forecast table. It includes the unique Forecaster tool, which lets you click the mouse to draw a line for your monthly forecast, instead of just typing numbers into the cells. For the purpose of this tour, we will manually enter numbers.

If you are not already in the Sales Forecast Table, select the Sales Forecast table from the Wizard Tasks, as shown in Figure 3-6.

Figure 3-6: Tour - Sales Forecast in Table Mode

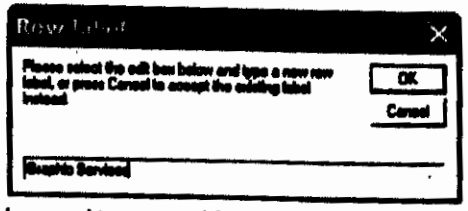


You can also use the View > Tables menu and select from the table list. Once in Table Mode, the list of tables can be accessed direct from the Table toolbar.

Typing Row Labels

1. Select the first monthly column, January (Jan), of sales. Click the mouse into that cell (C3).
2. Click on the Edit > Row Label command. A dialog box will display.
3. Type Graphic Services as the row label, as shown in Figure 3-7.

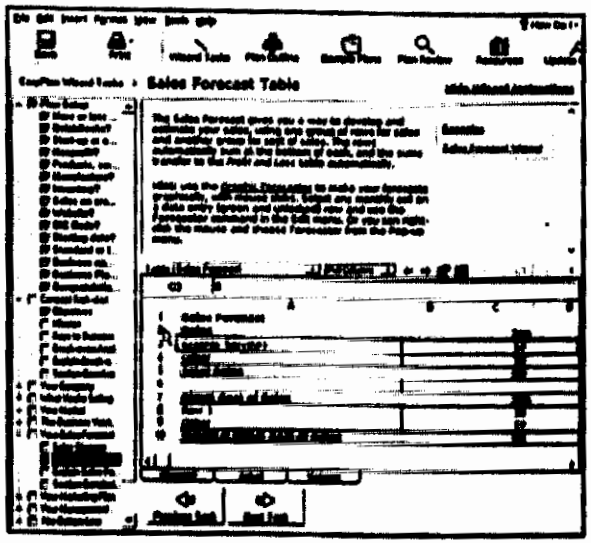
Figure 3-7: Row Label Dialog



Use the Row Label command to create row labels.

The row label will display in Column A. Figure 3-8 shows the results.

Figure 3-8: Sales Row Label



Cell A3 shows the new row label, Graphic Services.

Type in a Cell Value

For the purpose of this Tour, we will enter sales and costs of sales numbers for our newly-titled row, Graphic Services. The company is estimating a 20% increase in sales each month. Their cost of sales is set at 5% of their sales for each month.

To create this Sales Forecast, we will enter the first month's sales number, then use the Edit > Fill > Series command to automatically increase sales by a factor of 1.2 across the row. For our estimated cost of sales, we will use a formula to calculate 5% of the monthly sales. We will then use the Edit menu > Fill > Right command to repeat this formula across the row.

TIPS

Fill Right

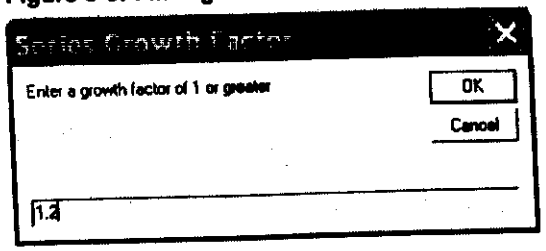
The Edit > Fill > Right command gives you an easy way to fill in a whole row of numbers with a simple growth rate. Try it!

Inputting Sales Numbers

1. Set your first month's (January) sales value to 1000.
2. Using your mouse, highlight the monthly cells in that same row (cells C3 through N3).
3. From the Edit menu, choose Fill > Series command.

Figure 3-9 shows the dialog box asking for Fill Right with growth figure.

Figure 3-9: Fill Right with Growth Factor of 1.2



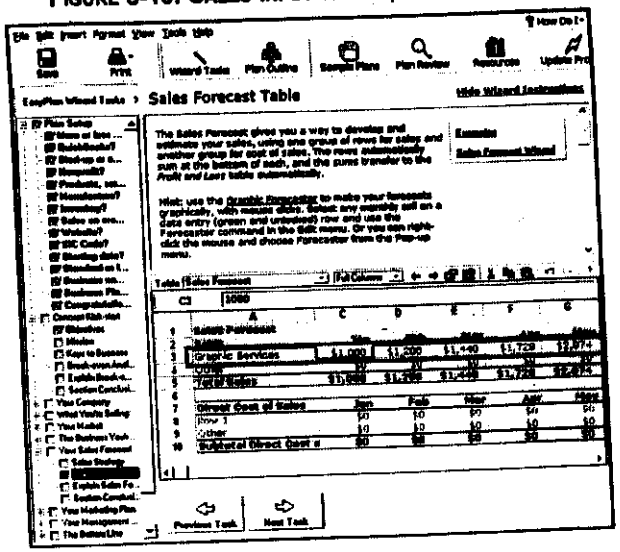
This growth factor will create a formula that automatically increases monthly sales by 20%.

4. Set that growth figure as 1.2
5. Click the [OK] button.

Your Graphic Services sales row should show that sales for each month increased by 20% from the previous month. February is $1,200, March is $1,440, etc., across the row.

Figure 3-10 will show the final input to the row.

FIGURE 3-10: SALES INPUT WITH GROWTH FACTOR



A simple sales forecast has one row each for Sales and Direct Cost of Sales.

Now that we have our sales numbers entered, we'll create our cost of sales.

Inputting Cost of Sales

For Cost of Sales, we will use a spreadsheet formula that calculates the cost to be 5% of the sales for that month. The formula is: =.05*C3

This formula multiplies the January sales number in cell C3 ($1,000) by .05. The cost of sales for January calculates to be $50 (cell C8).

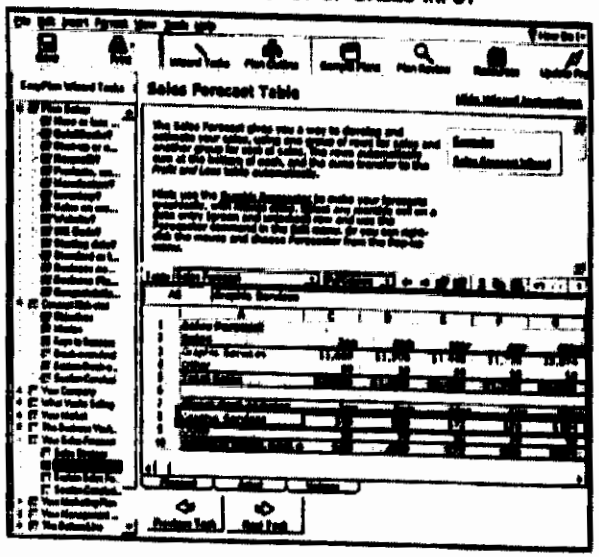
To create this formula and repeat it across the row:

Under the section, Direct Cost of Sales:

1. Use the Edit menu > Edit Row Label and type Graphic Services for Row 8.
2. Type =.05*C3 into cell C8. The cost of sales for January should now show as $50.
3. Highlight cells C8 through N8.
4. Use the Edit > Fill > Right command to repeat this cost of sales formula for each month.

Now, check your Cost of Sales numbers for Graphic Services. January should be $50, February is $60, March is $72, etc., as shown in Figure 3-11.

FIGURE 3-11: COST OF SALES INPUT



The row label in cell A8 shows in the edit bar portion of the screen.

You have now successfully created a sales forecast for your Graphic Services row.

TIPS

Do You Know Spreadsheets?

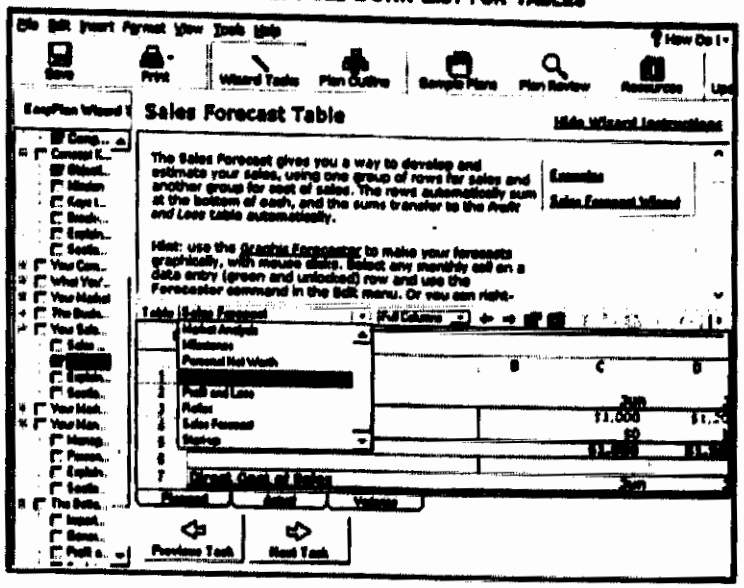
The financials in BUSINESS PLAN PRO are built on the foundation of a powerful computer spreadsheet, rather than a simple template, built into the application. If you know how to use spreadsheets, you will be happy to discover how much BUSINESS PLAN PRO has in common with Microsoft Excel®.

Use the Tools > Options > Tables settings to set row and column headings so they show, and you will discover compatibility with more than 100 Excel functions.

Personnel

Now we will enter numbers into the Personnel table. To move from the Sales Forecast to Personnel table, we will use the pull-down menu located on the left side of the toolbar, as shown in Figure 3-12.

FIGURE 3-12: PULL-DOWN LIST FOR TABLES



When working in Table mode, the pull-down list on the toolbar is a quick way to move from one table to another.

TIPS

Payroll Tax Percentage is Automatic

Payroll Taxes are automatically calculated in the Profit and Loss table. The tax percentage has a default setting of 19% but you can change that to reflect your real tax rates by typing the new value into the Payroll Taxes row, Column B.

Personnel Options (PREMIER version)

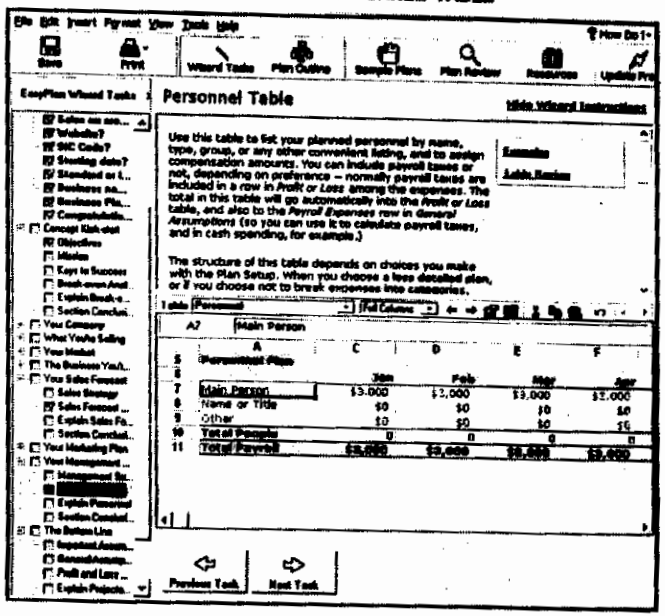
Chapter 6, Your Plan Tables, has details on the different options for personnel tables. You can have a lot more detail in your personnel plan if you want.

In the Personnel table, we will create a row called "Main Person," enter a salary amount, and copy it to all remaining months:

1. Position your cursor on cell A7.
2. Use the Edit menu > Row Label command to label the first row "Main Person."
3. Click on Cell C7, and type 3000 as a first-month salary. Press Enter.
4. Highlight the cells C7 through N7.
5. Use the Edit menu > Fill > Right command to repeat the number across the row.

You should now show a salary of $3,000 for each month of the row, as shown in Figure 3-13.

FIGURE 3-13: PERSONNEL TABLE



Fill in your personnel table with some simple personnel numbers.

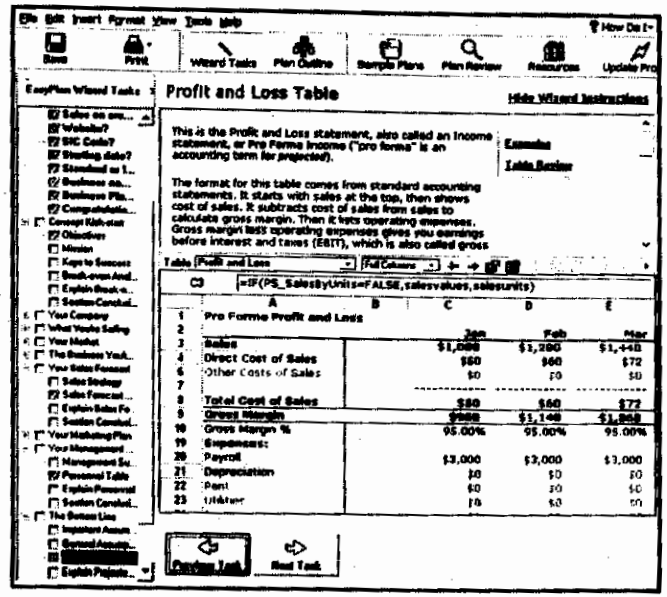
Profit and Loss

Now we'll move to the next table, Profit and Loss.

- Use your pull-down list from the toolbar and select Profit and Loss.
- The Instructions and Examples in the EasyPlan Wizard window have switched to Profit and Loss.

Look first at the top of the table, and you'll see that Sales and Cost of Sales numbers are already there. They came directly from your Sales Forecast. It should look like Figure 3-14.

FIGURE 3-14: PROFIT & LOSS TABLE



The Profit and Loss table absorbs sales and personnel information, plus assumptions for expenses, to calculate profits.

The Profit and Loss table contains a section for expenses. Several common expense items are automatically listed in this section. We will rename rows and insert a new row.

Rename a Row

For this Tour, we will use the Edit > Row Label command to rename a row.

- Find the row named Rent and rename it Building Lease.

Insert a Row

In addition to the existing expense rows, we will use the Insert > Rows command to insert a row for Advertising/Promotion expenses:

1. Position cursor on the Utilities row.
2. Use the Insert > Rows command. An "Inserted Row" will now display above the Utilities row and the Edit Row Label dialog is opened.
3. Type Advertising/Promotion as the row label and click the OK button.

Your new expense row is now in place.

Delete an Expense Row

We will delete the Insurance row:

1. Click anywhere in the row labeled Insurance.
2. Select the Edit > Delete > Rows command.
3. The software will ask you to confirm that you want to delete the row (deleting a row can't be undone).
4. Click the [ ] button to delete that row.

TIPS

When to Delete an Expense Row

If you're not sure if you need a preset expense row, we recommend you keep it in the table. It will show a $0 value and will have no affect on your other table numbers.
It's easy to go back later and delete unused rows.

Input Expenses

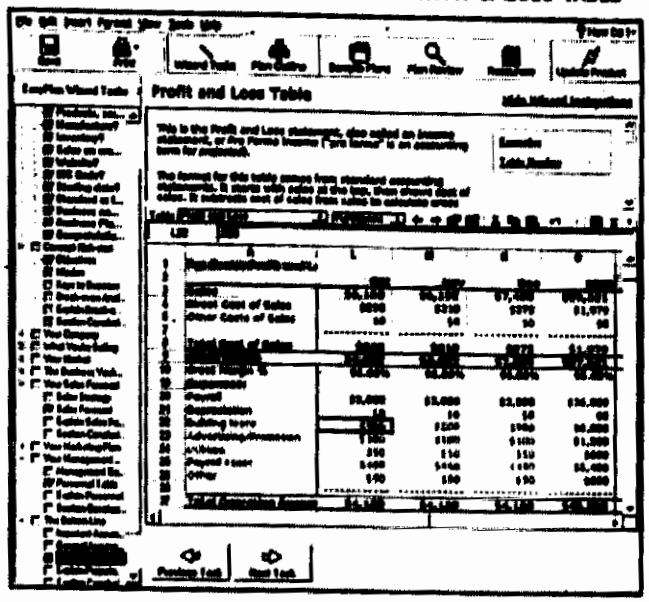
Now that our expense rows are in place, let's enter numbers:

1. Go to cell C22, the Building Lease for January. Type in 500. Press Enter.
2. Highlight the cells C22 through N22.
3. Use the Edit > Fill > Right command to copy the number in C22 to the selected cells.
4. Repeat these steps and enter the following expenses:

Advertising/Promotion	=	100
Utilities	=	50
Other	=	50

Your Profit and Loss table should look like Figure 3-15.

FIGURE 3-15: INPUTTING EXPENSES IN PROFIT & LOSS TABLE



This view shows the expenses entered for the Profit and Loss. Note the Payroll taxes row, as described in the previous Personnel table section tips.

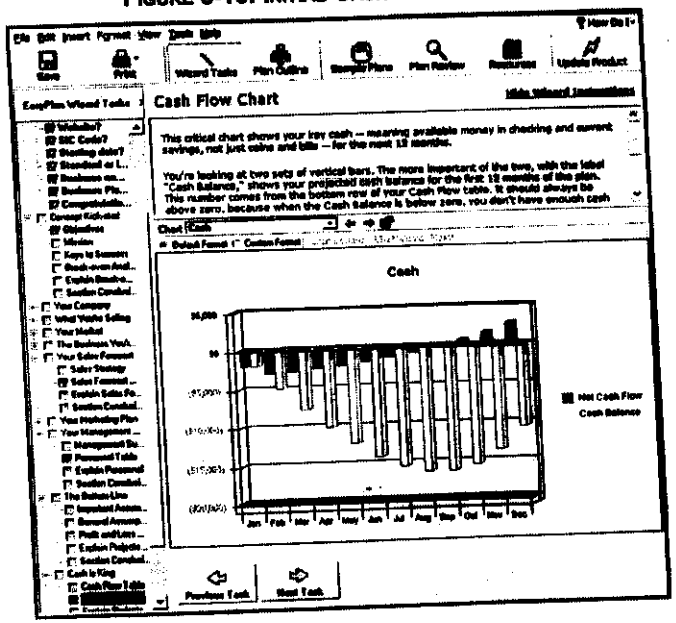
Cash Flow

We'll now see how our numbers are affecting the Cash Flow. To start, we will take a look at our current Cash Flow chart.

1. Select View > Chart menu.
2. From the pull-down menu, select Cash.

You should see a chart like the one in Figure 3-16. Notice how the projected cash balance shows a negative in all months, with July through September the worst.

FIGURE 3-16: INITIAL CASH FLOW CHART



The chart shows a negative cash problem of more than $16,000.

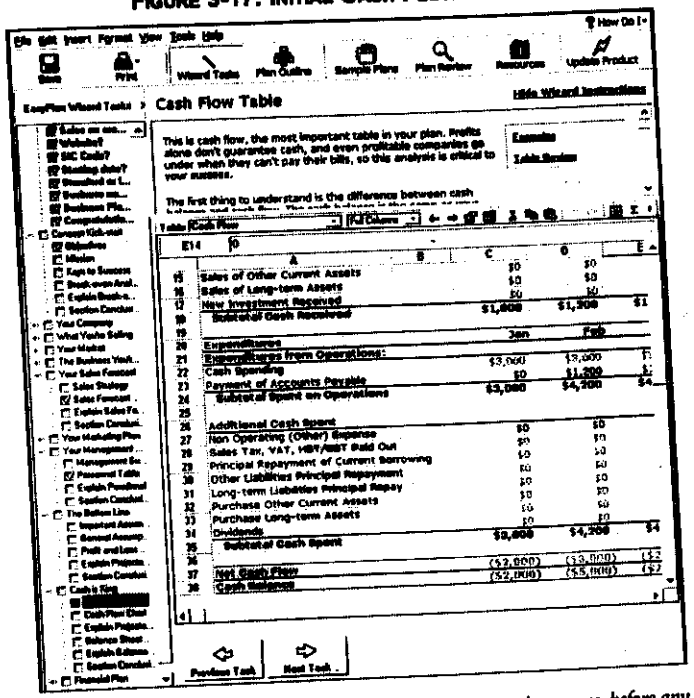
A negative cash balance means we don't have the money to cover our expenses. In the real world that means bounced checks. This is our first chance to "test" our business idea. At this point, we need to take a closer look at the Cash Flow table and see where that negative balance is coming from.

To move from a chart to a table:

1. Locate the Cash chart in the EasyPlan Wizard Tasks (it will be highlighted).
2. Click on the Cash Flow table icon above it.

You should see the Cash Flow table, shown in Figure 3-17.

FIGURE 3-17: INITIAL CASH FLOW TABLE



This is the initial Cash Flow table, after a first run through sales and expenses, before any adjustments.

What the cash flow shows at this point is the impact of your business assumptions. The table starts with profits, adds back depreciation, then accounts for balance sheet changes including expenses not paid (which show up as Accounts Payable instead of checks written) and sales amounts not received (which show up as Accounts Receivable instead of money in the bank account). For now, though, we continue the Tour.

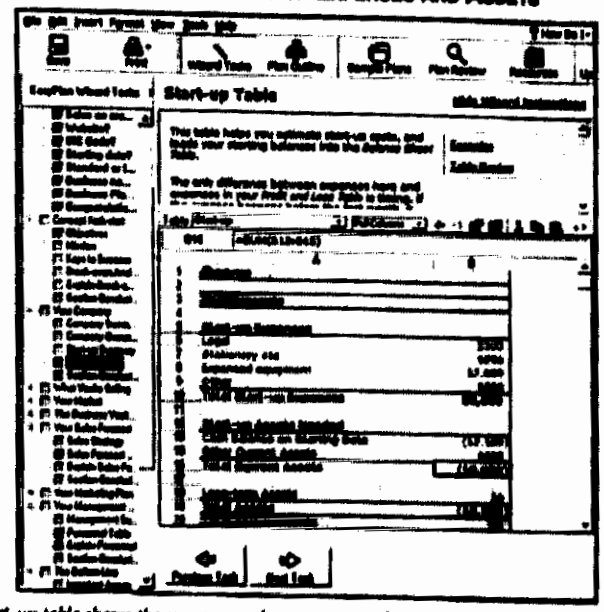
Start-up Table

Let's take a look at the Start-up table. We will divide this table into two sections—Start-up Expenses and Assets, and Start-up Financing.

Start-up Expenses and Assets Needed

Start-up expenses are those expenses incurred before the business is running. Figure 3-18 shows the estimated start-up costs for this hypothetical business. To prepare this table as it shows in the illustration, we took the default Start-up table, deleted the expenses that aren't going to be included, and added the assumptions shown.

FIGURE 3-18: START-UP EXPENSES AND ASSETS



The start-up table shows the expenses and assets you need to start a business.

TIPS

Starting Cash Is Automatic

The cash balance on starting date is an important calculation: take the money you raise (investment or loans) in the bottom section of the table, and subtract the money you spend (expenses or assets) in the top section; the remainder is Cash Balance on Starting Date.

To create this Start-up table, we will first delete the unused expense rows:

Delete Expense Rows

1. Click on the Brochures row.
2. Select the Edit > Delete > Rows command.
3. Answer Yes to confirm the delete.

Repeat the above steps to delete each of the following rows:

- Consultants
- Insurance
- Rent
- Research and Development

Now we're ready to enter the start-up expenses and assets needed for the business:

Input Start-up Expenses

1. Click on the cell in Column B for Legal expenses (B6).
2. Type 300. Press Enter.

Repeat for these additional expenses:

- Stationery etc. = 200
- Expensed Equipment = 2000
- Other = 500

Input Start-up Assets Needed

- Other Current Assets = 500

How did we come up with these numbers? For the most part, they are educated guesses. For example, under Start-up Expenses, Expensed Equipment is intended to be a single computer. This would be a Start-up Asset except that the U.S. government allows businesses to deduct some computer expenses, and it's better as a tax deduction than as an asset.

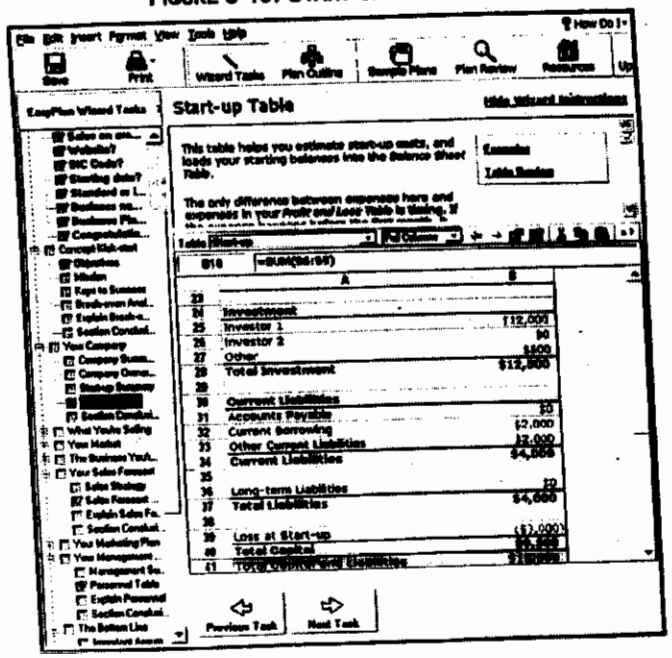
TIPS

Expensed Equipment

In the U.S., the government lets you write off a certain amount of computer equipment (last time we looked it was $17,000, but tax laws change, so check with your accountant) as a deductible expense, instead of investment in assets. That's why we suggest expensed equipment as a start-up category; many companies need computer equipment when they are getting started.

BUSINESS PLAN PRO generates the number for Cash Balance on Starting Date (shown in Figures 3-18 and 3-20) automatically by taking the estimated financing and subtracting expenses and purchased assets. So in this Guided Tour, we will type in the Start-up Financing assumptions, as shown in Figure 3-19, which will set the cash balance.

FIGURE 3-19: START-UP FINANCING



This figure shows the start-up funding portion of the Start-up table. Note that the sum of capital and liabilities is $13,500, so it matches the sum of start-up assets. Also, the Loss at Start-up is exactly $3,000, expressed as a negative number. The Start-up Expenses are exactly $3,000 expressed as a positive number.

To match this table in your own Guided Tour plan:

1. Scroll downward to the section on Funding.
2. Type in the amounts shown in the following list:
   - Investor 1 = 12000
   - Other = 500
   - Current Borrowing = 2000
   - Other Current Liabilities = 2000

Unlike our "educated guess" approach for Start-up expenses, these numbers are not random:

1. We set up our Investment section into two rows because the first row (Investor 1) is actual money ($12,000) from the owner.

2. The $500 Other investment is money invested as Assets. In this hypothetical business, the $500 in Other Current Assets is really the office furniture, taken from the owner's house, which now becomes an investment in the business.

   The $12,500 in Total Investment, therefore, is owner investment. This is what our estimated guesses indicate is the required amount to start this business.

3. The $2,000 in Current Borrowing matches the $2,000 in Expensed Equipment. That's because the computer was purchased with a credit card. Purchases on credit are Current Borrowing.

4. The additional $2,000 in Other Current Liabilities is an interest-free loan from our grandmother. Grandmothers are like that. Entrepreneuring is like that too.

5. The Loss at Start-up (expressed as a negative number) will always be exactly equal to Start-up Expenses (expressed as a positive number).

   This is basic accounting. Expenses are deductible, so without any sales as yet, whatever you have as expenses is the same as a loss. Assets are not deductible, so whatever you spend on assets should not show up as loss.

TIPS

Loss at Start-up is Normal

Almost all start-up companies have some expenses before they get revenues, which means they have a loss at start-up. It's normal.

Your Start-up table should now look like Figure 3-20.

Figure 3-20: Completed Start-up Table

Table: Start-up

833 | 2000

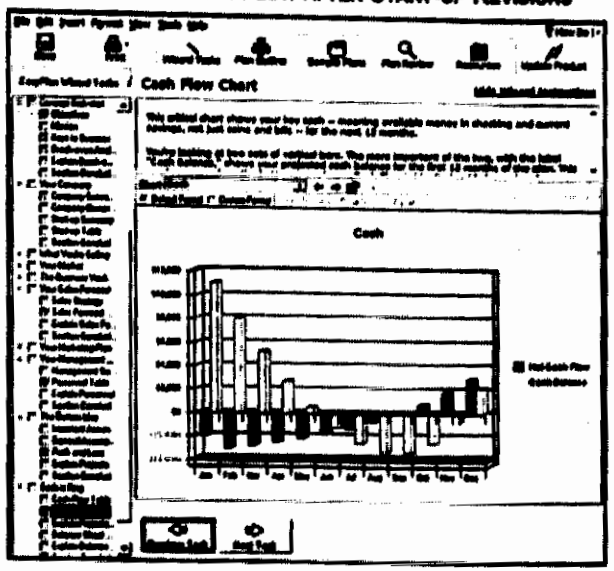
	A	B
1	Start-up	
3	Requirements	
5	Start-up Expenses	
6	Legal	$300
7	Stationery etc.	$300
8	Expensed equipment	$2,000
9	Other	$500
10	Total Start-up Expenses	$3,[illegible]
11		
12	Start-up Assets Needed	
13	Cash Balance on Starting Date	$13,000
15	Other Current Assets	$500
16	Total Current Assets	$13,[illegible]
17		
18	Long-term Assets	$0
19	Total Assets	$13,[illegible]
20	Total Requirements	$16,[illegible]
21		
22	Funding	
24	Investment	
25	Investor 1	$12,000
26	Investor 2	$0
27	Other	$500
28	Total Investment	$12,[illegible]
29		
30	Current Liabilities	
31	Accounts Payable	$0
32	Current Borrowing	$2,000
33	Other Current Liabilities	$2,[illegible]
34	Current Liabilities	$4,000
35		
36	Long-term Liabilities	$0
37	Total Liabilities	$4,[illegible]
38		
39	Loss at Start-up	($3,000)
40	Total Capital	[illegible]
41	[illegible]	[illegible]

The completed Start-up table shows estimated expenses and assets as well as financing needed to start the business.

Review Cash Flow after Changes

With the Start-up table now complete, it's time to return to the Cash Flow chart. Figure 3-21 shows improved cash flow because the start-up financing provides the money necessary to support the deficit spending for the first few months. Unfortunately, the checkbook balance is now showing negative from June through November. We still need to correct a negative cash balance for these months.

Figure 3-21: Cash Flow after Start-up Revisions



Cash flow has improved, but we're still showing a negative cash balance.

By now you should begin to see the power of working with linked tables. A change in one table is reflected in another.

Tips

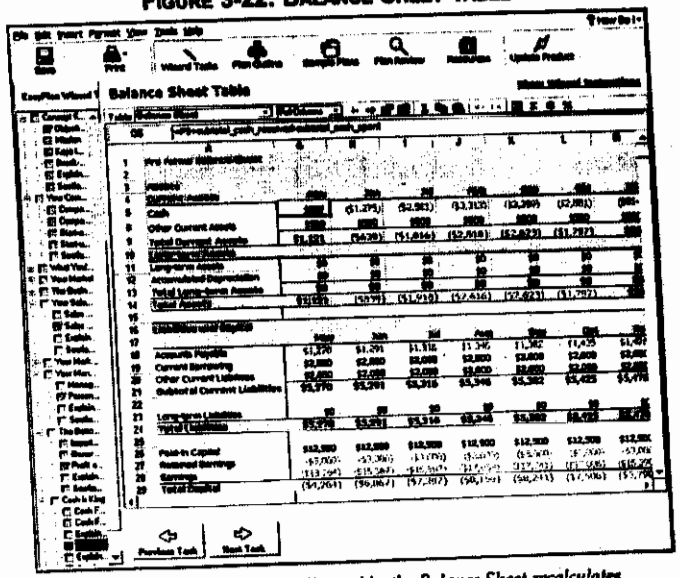
How Much Cash do I Need?

Notice the answer for this question: It's a process, not a simple calculation. We projected sales, cost of sales, personnel, other expenses, and start-up expenses. Then we looked at cash flow and it looked bad. So after that, we went back to the start-up table and added more investment.

Balance Sheet

Use your Wizard Task outline to switch to the Balance Sheet table. This table (also known as the Pro-forma Balance Sheet), shows the business' capital position: assets, liabilities, and capital. Figure 3-22 shows the Balance Sheet as it now stands.

FIGURE 3-22: BALANCE SHEET TABLE



With the adjustments made in the Cash Flow table, the Balance Sheet recalculates automatically to show the results.

Notice the numbers for Cash show the negative cash balance starting in June. The next section will show different loan options that a business can pursue to help them deal with a temporary cash flow problem.

TIPS

Hide Row(s) and Column(s) in a table

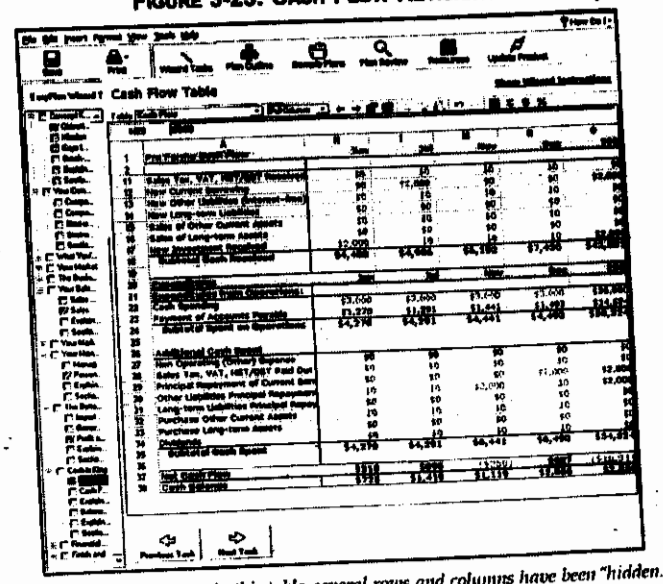
It can be helpful to temporarily "hide" a row or column in order to see multiple areas in a table. This is not the same as deleting a row or column. A hidden column still exists.

To hide a row or column highlight a cell from the row or column to hide. Choose Format > Hide Row or Hide Column. To reverse this function, use Format > Show Row or Show Column.

More Cash Flow Revisions

Use your View > Tables > Cash Flow command to return to the Cash Flow table. Figure 3-23 shows how we clear up the cash balance problem with loans, and then how we later pay back those loans, and the initial start-up loan from our grandmother.

FIGURE 3-23: CASH FLOW REVISIONS



To focus attention to key areas in this table, several rows and columns have been "hidden." We used the Format > Row > Hide and > Column > Hide commands to show this view.

With the following changes, the cash balance stays (just barely) above zero. No more bounced checks. Now we have a plan. The Cash Flow adjustments show borrowing money in June and July and paying it back in November and December:

1. We are going to add Capital (New Investment Received row) in the amount of $2,000 for the month of June. This will come from our savings. We are investing in ourselves.
2. We also loan the company another $2,000 (New Current Borrowing row) in July. This is a loan, not an investment. We expect to pay it back. It is important to track this transaction as a loan for tax reasons and proper accounting.

Input New Investment for June

1. Locate New Investment Received row.
2. Click on the cell for June column (H17).
3. Type 2000 into the cell.

Input Loan for July

1. Locate the New Current Borrowing row.
2. Click on the cell for July (I12).
3. Type 2000 into the cell.

We plan to repay all the loans before the end of the year:

Input Loan Payment for November

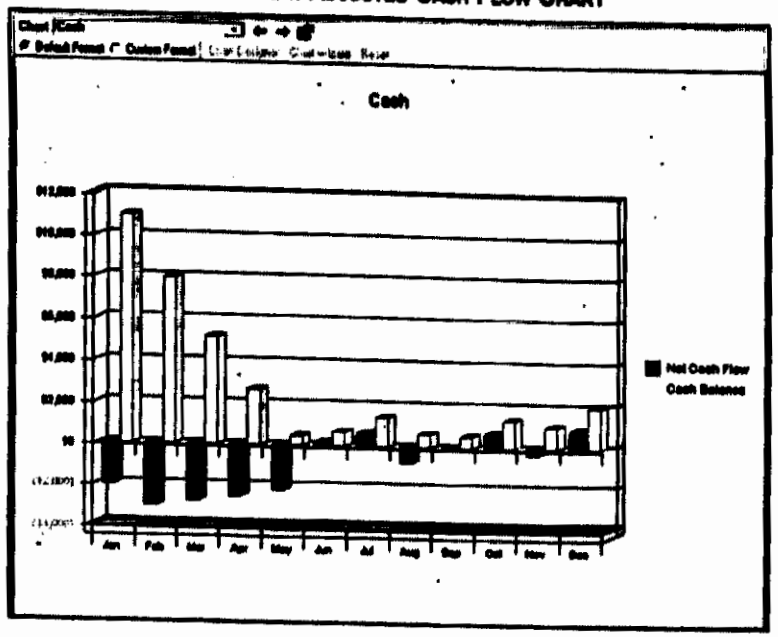
1. Locate the Other Liabilities Principal Repayment row; we're repaying Grandma back.
2. Click on the cell for November (M30).
3. Type 2000 into the cell.

Input Loan Payment for December

1. Locate the Principal Repayment of Current Borrowing row. This is repaying credit card debt. Interest is high and it's a good idea to pay this off as soon as possible.
2. Click on the cell for December (N29).
3. Type 2000 into the cell.

Now that these adjustments are made, let's see what the Cash Flow chart now shows in Figure 3-24.

FIGURE 3-24: ADJUSTED CASH FLOW CHART



Our corrected cash flow now shows a positive cash balance throughout the year. We are no longer bouncing checks!

TIPS

Use the Charts

As we go through this guided Tour, we keep referring back to the cash chart for a quick view of cash flow. That's one of the powerful advantages of the business charts; it gives us a quick view, at a single glance.

The Rest of the Tables

With your main table input completed, you can take a moment to visit the other tables.

1. Break-even Analysis shows what sales a company needs to equal its expenses and "break even" in a given month.
2. Market Analysis is where a company estimates its potential customer base and what percentage of growth they hope to achieve for their plan.

   Both of the above tables are still empty, but you can fill those in later. You have instructions for those in Chapter 6, Your Plan Tables.
3. Milestones is where you list the key tasks to accomplish in order to achieve your goals. Including a date of completion and estimated budget for each task will help you measure the success of your goals. The Milestones is critical to business planning, but not hard to understand.
4. The Balance Sheet, your estimated assets and liabilities, is already done. So are the Business Ratios. You can read about those in detail in the Hurdle book and in Chapter 6 of this manual.

TIPS

Chapter 6 Covers All the Tables

For the complete details on all the tables included with BUSINESS PLAN PRO, turn to Chapter 6, Your Plan Tables. For Advanced help on the spreadsheet programming facilities included, turn to Chapter 10, Advanced Tables.

Charts are Automatic

All of the charts in BUSINESS PLAN PRO are automatically linked to tables. As you saw throughout our Tour, when you fill in your tables, your charts will start to show data.

TIPS

Chapter 7 Covers All the Charts

For the complete details on key charts included with BUSINESS PLAN PRO, turn to Chapter 7, Your Plan Charts.

Printing is Automatic

BUSINESS PLAN PRO will print out a plan with an automatic format.

- It merges the text, tables, and charts into a professional-looking format. This includes automatic indenting of paragraphs and formatting of topic titles. Bullet points and numbered lists can be added into your text topics through the formatting toolbar.
- It prints the monthly tables as Appendices.
- It creates a Table of Contents.
- It has a standard cover sheet that you can customize with a company logo and standard text formatting.
- An optional Legal page can be included. Basic text on confidentiality is provided with the template.
- A Print Preview option lets you see the plan document before you print.

For complete details on your Print options, please see Chapter 8, Print and Publish, in this manual.

TIPS

Chapter 8 Covers Printing Your Plan

For the complete details on all of the print options included with BUSINESS PLAN PRO, turn to Chapter 8, Print and Publish.

Congratulations!

You have completed the Guided Tour. We hope you found the Tour helpful in understanding the process of creating a business plan.

The other chapters in this manual are written to give detailed background on working in BUSINESS PLAN PRO and getting the most from its features.

Starting a Plan

EasyPlan Wizard® 4.3
Sample Plan Browser 4.7
Caution on Using Sample Plans 4.10
Make It Your Own 4.10

CHAPTER 4: STARTING A PLAN

This chapter will describe the different options available for getting started on your business plan. These options include:

1. *EasyPlan Wizard®*
2. *Sample Plan Browser*

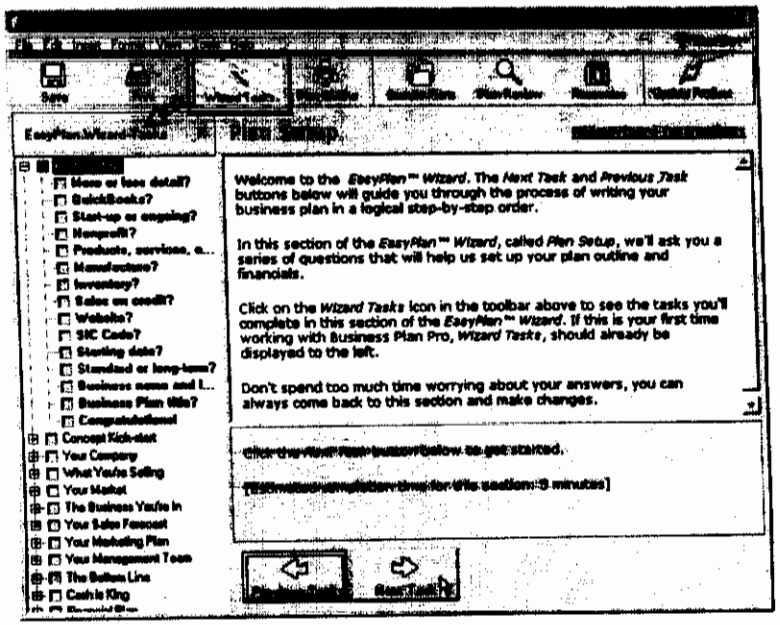
EasyPlan Wizard®

BUSINESS PLAN PRO was designed to develop any business plan from scratch, customizing the outline and structure for the type of business, and guiding you through the process. That's why we designed the EasyPlan Wizard. Let the EasyPlan Wizard guide you through the questions, set up your plan, and take you through the plan from beginning to end.

EasyPlan Wizard® Introduction

When you start a new plan, the EasyPlan Wizard Plan Setup screen displays, as shown in Figure 4-1.

FIGURE 4-1: EASYPLAN WIZARD INTRODUCTION

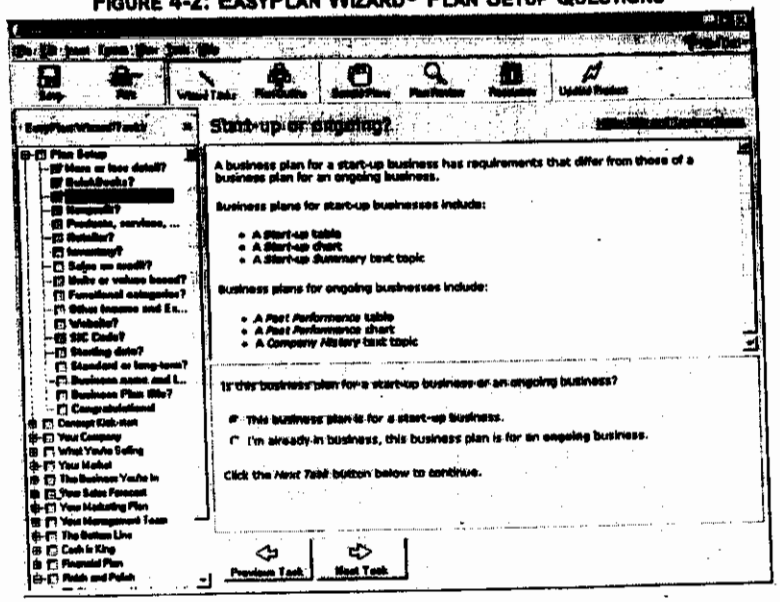


The Plan Setup section introduces you to the EasyPlan Wizard and how to get started.

- Click the buttons to move through the Wizard screens.

As you continue with the EasyPlan Wizard, the Plan Setup section asks you a series of questions. Each question on the form includes details about how to answer it.

FIGURE 4-2: EASYPLAN WIZARD® PLAN SETUP QUESTIONS



The EasyPlan Wizard Plan Setup section asks questions about your business to help set up your plan.

Based on your answers to the Plan Setup questions, the EasyPlan Wizard will match your type of business. The final question asks for a plan title. This can be your company name, the name of the project, etc. Figure 4-3 shows an example.

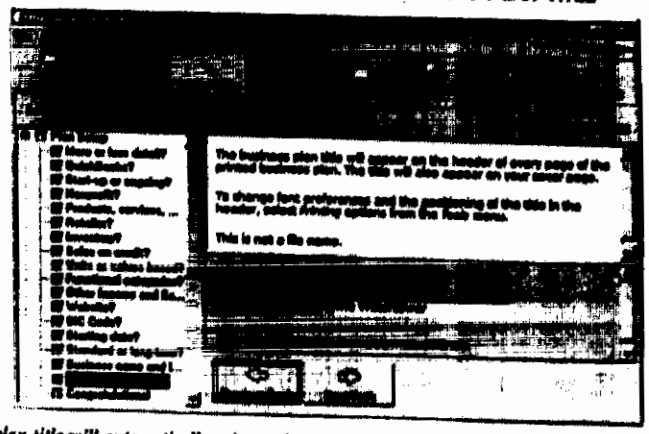
TIPS

If you're not sure how to answer an EasyPlan Wizard question...

Each question provides a "default" answer. In many cases, the EasyPlan Wizard will describe the default answer in its description.

If you're not sure how to answer a question, simply accept the default for now. You can always come back later and change it.

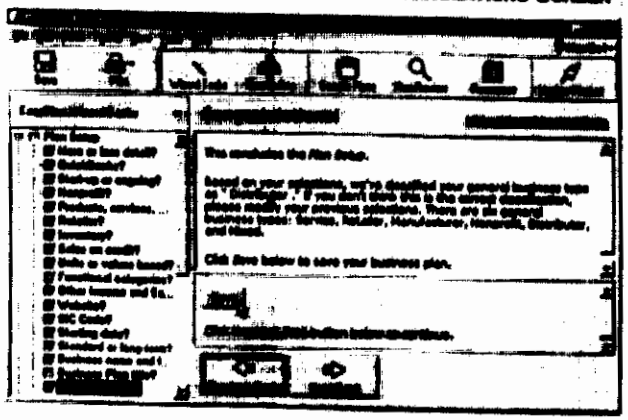
FIGURE 4-3: EASYPLAN WIZARD® BUSINESS PLAN TITLE



The plan title will automatically print at the top of every page of your business plan.

Once all questions are answered, the Congratulations screen will display, as shown in Figure 4-4.

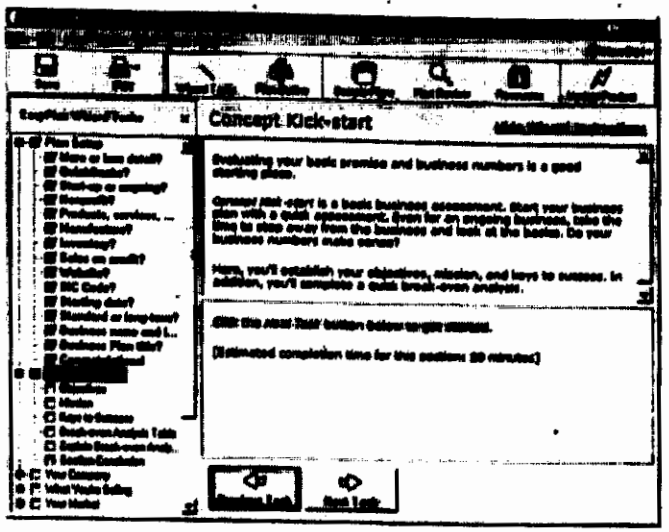
FIGURE 4-4: EASYPLAN WIZARD® CONGRATULATIONS SCREEN



When you click the Save button, a dialog box displays. The "default" filename is the plan title you entered earlier. This is the final step in the Plan Setup section of the EasyPlan Wizard.

Once the Plan Setup section questions have been completed and the file has been saved, the next EasyPlan Wizard task is the Concept Kick-start, shown in Figure 4-5.

FIGURE 4-5: EASYPLAN WIZARD® - CONCEPT KICK-START



Now that the key assumptions have been set from the initial questions, you're ready to start working on your plan.

Starting a New Plan from a Sample Plan

BUSINESS PLAN PRO includes a wide variety of sample business plans, and more are added regularly. They are provided primarily to give you ideas, show you what a finished plan looks like, and explain the process by example. We have created a tool to simplify accessing these plans for review and/or use. It's called the Sample Plan Browser.

Sample Plan Browser

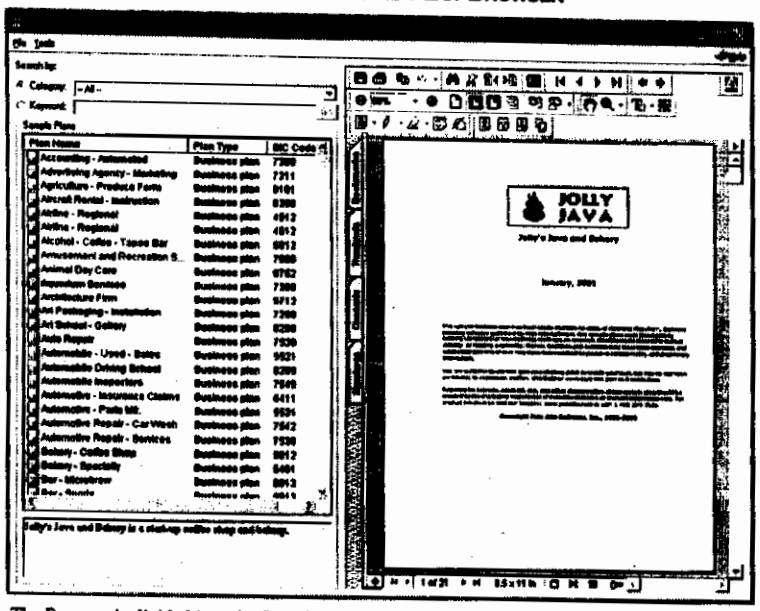
The Sample Plan Browser can be accessed by pressing the button in the toolbar at the top of your screen. The Browser will open in a separate window from the program. The primary benefit of the Sample Plan Browser is to make it easy to search our extensive sample plan library for plans that match your business needs.

The Sample Plan Browser lets you:

1. Read plan summaries for a quick overview of a plan.
2. Sort plans by category.
3. Print a plan to discuss and review with others.
4. Copy and paste text from the Browser screen into a new plan document.
5. Open a working copy of a sample plan to edit and adapt as a starting point for your plan.

Figure 4-6 shows the Sample Plan Browser screen.

FIGURE 4-6: SAMPLE PLAN BROWSER



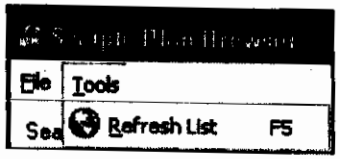
The Browser is divided into the Sample Plan List and the PDF Viewing screen.

Refresh the Sample Plan List

We are continually adding and updating our sample plans. If you have an Internet connection, you can download the most current list from our website:

- From within the Browser use the Tools > Refresh List command.
- Figure 4-7 shows this menu option.

FIGURE 4-7: REFRESH SAMPLE PLAN LIST



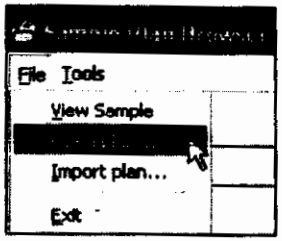
With an Internet connection, you can download the latest sample plan list.

Open a Sample Plan

If, after reviewing a plan in the Sample Plan Browser, you want to open a working copy of it in BUSINESS PLAN PRO:

- Use the File > Open plan... command from the Sample Plan Browser.
- Figure 4-8 shows this menu option.

FIGURE 4-8: OPEN SAMPLE PLAN



Use this menu command to open a working copy of a sample plan in BUSINESS PLAN PRO.

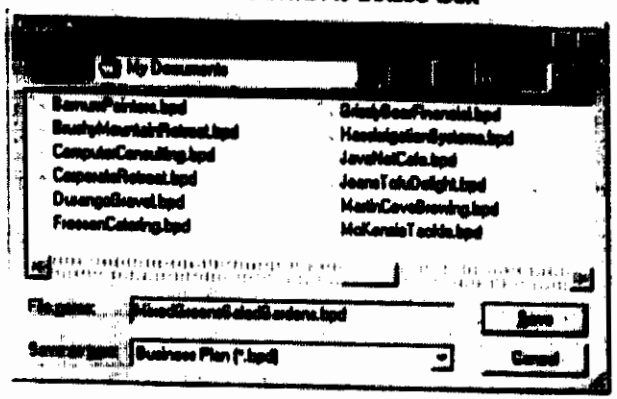
Import plan...

Components of files from other selected programs (topic text and selected tables) can be imported into a business plan. See the section on Import a File in Chapter 5:Your Plan Text, for more information.

Use Save-As to Create a New Plan

If you decide to open a sample plan as a starting point for your own plan, you will need to save it under a new filename. The File > Save As dialog box lets you specify a new filename and choose a directory in which to save it.

Figure 4-9: Save As Dialog Box



Avoid spaces and periods as part of the filename. An extension will automatically be added (.bpd). We don't recommend saving to floppy disks due to file size and potential for data loss.

Nonprofit Sample Plan

To Learn more about...	Search the Help Index for...
Nonprofit sample plans	nonprofit, sample plans

Update Plan Setup in the EasyPlan Wizard®

If you start with a sample plan, you will need to go through the Plan Setup section in the EasyPlan Wizard to customize the plan for your particular business (start-up vs. ongoing, pay on credit, etc.), and in particular, to change the Plan Title (described earlier) which will print at the top of every page of your plan.

Caution on Using Sample Plans

With this version of BUSINESS PLAN PRO, we offer over 400 different sample plans as part of the product. Most people like sample plans. We included two sample plans in 1995, 10 in 1997, 20 in 1998, and 30 in 1999. We try to offer a good mix of common types of businesses. However, there are potential benefits and cautions about sample plans:

Benefits:

- If a sample plan serves as an example, that's good. You don't need an exact match to see how a sample plan covered a market analysis or product/service list.
- If you use a sample plan as a starting point or head start, that can be good too, but develop your own plan, not somebody else's plan.
- Samples are also good for generating ideas. Look how somebody else segmented their market, and it may help you segment your own.

Cautions:

- BUSINESS PLAN PRO is designed to create your business plan, not just copy an existing plan. You don't need a sample plan to start with.
- If you don't find a sample plan exactly like your business, don't worry. Just follow the EasyPlan Wizard, answer the questions, and you'll have a business plan. That's what BUSINESS PLAN PRO was designed for.
- Every business is unique. No sample plan really works for copying without modification. Don't expect that to happen.
- Your mission, your objectives, your keys to success, your strategy, your management team, your financials, and your company description should be different from any sample. Your plan should represent YOU, YOUR idea, YOUR company, in YOUR city.

Make It Your Own

If you do decide to start with a sample plan, make sure you go over every word, and every number. Make it truly your own plan. That will make it a good compromise between the value of starting points and examples, and the importance of ending up with your own plan.

Your Plan Text

Standard Text Format 5.3
Working in Text Mode 5.7
The Plan Outline 5.9
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Import a File 5.12
Insert a Graphic Image 5.14
Insert a Text Table 5.15
Insert a Character Symbol 5.16
Insert Hyperlink 5.17
Modify Plan Outline for Different Situations 5.18
About Business Writing 5.20

CHAPTER 5: YOUR PLAN TEXT

Your business plan is business. It isn't a doctoral thesis or a piece of expository writing. It's a plan. Ultimately its purpose is guiding decisions.

Standard Text Format

When people talk about a "professional" or "appropriate" format for a business plan, they mean a format that makes the content easy to read and follow. There is no true standard format for a business plan. You can use any text size, font, page size, and page layout that works.

Automatic Merge of Tables and Charts with Topics

Unlike Microsoft Word®, BUSINESS PLAN PRO automatically merges tables and charts with the topic outline and creates an excellent layout that is easy to read and thoroughly professional. It also prints cover pages, legal pages, tables of contents, and table appendices.

Automatic Text Formatting

BUSINESS PLAN PRO is designed to do the text formatting for you. However, in order to do all the page formatting automatically, BUSINESS PLAN PRO is not as fully flexible and programmable as the more powerful word processing packages. If you work with it, not against it, you'll get better results.

- Avoid tabs for indenting (the program automatically indents paragraphs .5" in from their topic title).
- Avoid carriage returns at the end of each line. This will cause uneven flow of text when printing.
- Use the built-in text formatting toolbar when:
  - Creating bullet point lists and numbered lists wherever the content fits.
  - Increasing or decreasing the indent of text when you want to add emphasis.

TIPS

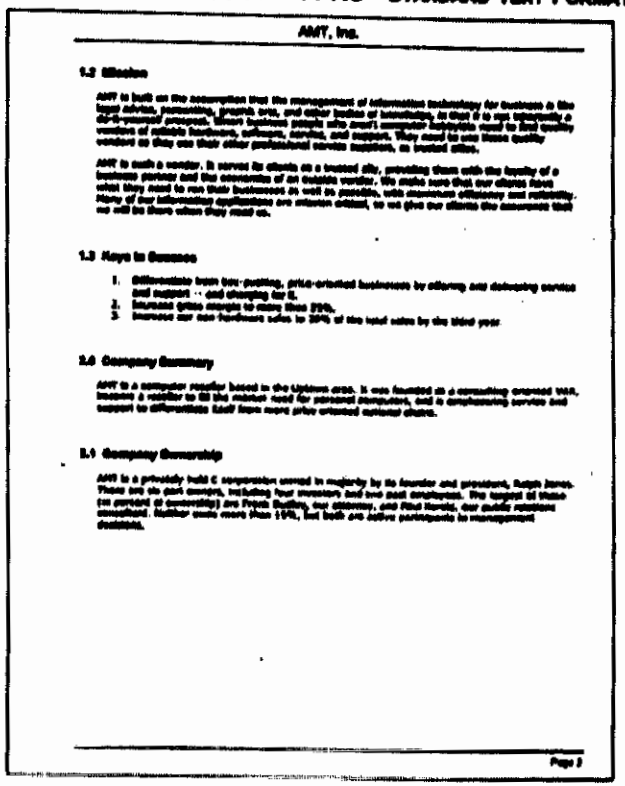
Automatic Text Formatting

BUSINESS PLAN PRO is designed to do the formatting for you. Concentrate on content, don't try to arrange formatting beyond what's readily available in the program. Use the HTML formatting built in for bullet points, lists and tables. Work with it, not against it, and you'll get better results.

Sample Text Formatting Page

Figure 5-1 shows an example of a simple text page format (no table or chart) prepared using the automatic formatting built into BUSINESS PLAN PRO.

Figure 5-1: BUSINESS PLAN PRO® Standard Text Format


AMT, Inc.

1.2 Mission

1.3 Keys to Success

2.0 Company Summary

2.1 Company Ownership

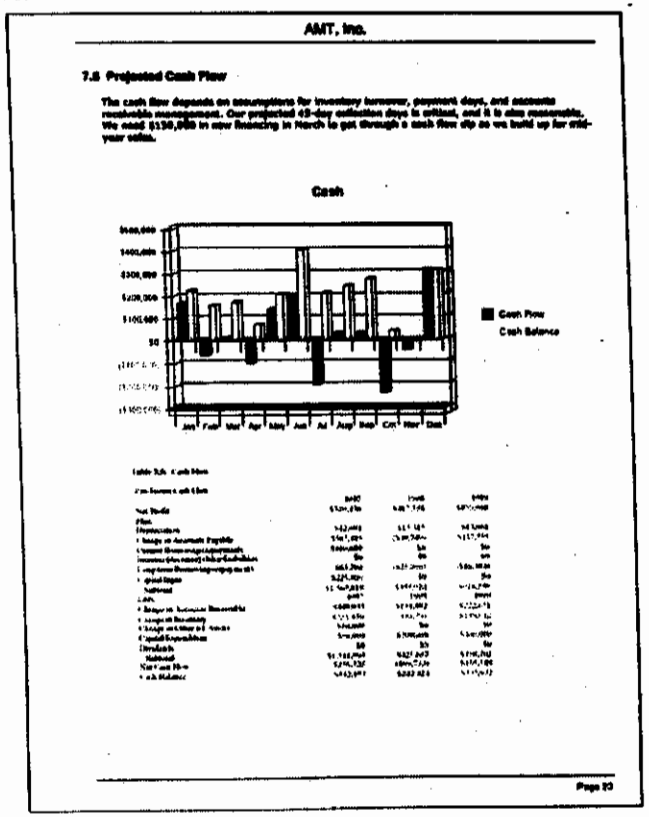
Page 2

The standard text page has topics set apart and points in bullet and/or numbered lists. Writing is simple and clear, and the format makes it easy to access.

Sample Format - Including Tables and Charts with Text Topics

BUSINESS PLAN PRO will automatically put tables and charts together on the page, merged with the text topics that refer to them. Figure 5-2 shows an example.

FIGURE 5-2: BUSINESS PLAN PRO® PAGE WITH TABLE & CHART



The ideal format merges table highlights and business charts on the same page with the text that refers to them.

Numbers and Charts are Essential

The numbers in a business plan are essential. Any normal plan shows sales forecast, cash flow, and profit and loss. Most plans include the full range of financial tables covering the complete business, from break-even to market analysis to milestones.

Your format should make these numbers easy to access and read, because they are an essential part of the plan. Generally a plan puts the main numbers into the text where the reader can find them easily as reference points. Putting the details into an appendix is acceptable.

Business graphics are an excellent way to display numbers. Most business plans include charts of the main financial projections, because charts are easier to read and interpret. Numbers are often attached in detail in appendices, while main concepts are included as business charts.

Insert Tables and Charts

The Insert icon from the Plan Outline toolbar lets you insert text topics, and attach tables and charts to topics as part of your final printed plan. See the Plan Outline section later in this chapter for more information on the Plan Outline toolbar.

Charts vs. Tables linked to Text

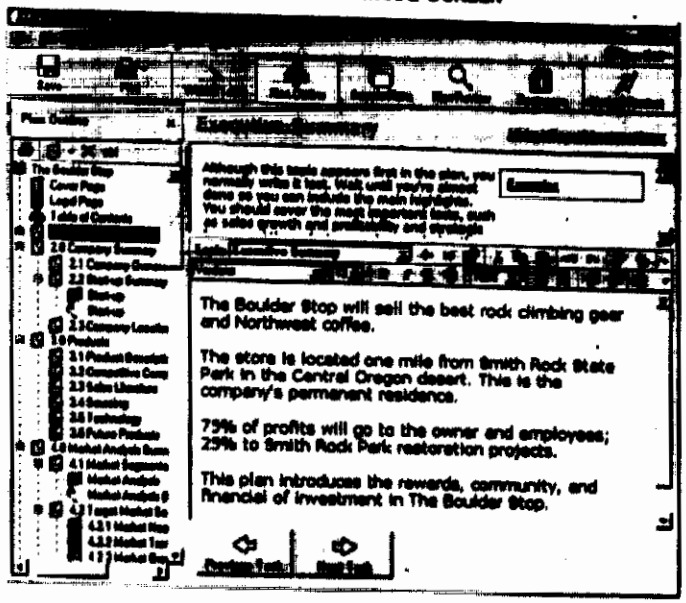
Consider including only the charts in the text, and leaving all the numbers for the appendices. This isn't the BUSINESS PLAN PRO standard, but it can be a pleasant presentation. Use the Plan Outline to unlink tables from text topics, leaving only charts.

But before text formatting can begin, you must enter your text. And that's done from the Text Mode screen.

Working in Text Mode

The Text Mode screen is where you write text for each topic in the outline. Figure 5-3 shows an example of the Text Mode screen.

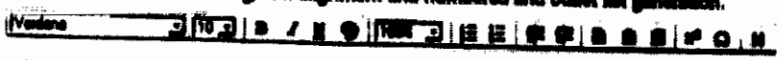
Figure 5-3: Text Mode Screen



Text Mode provides a formatting toolbar for common text attributes, such as bold, underline, and italic, etc.

Formatting Toolbar

The formatting toolbar displays near the top of the Text Mode screen. It provides icons for commonly-used text formatting, text alignment and numbered and bullet list generation.

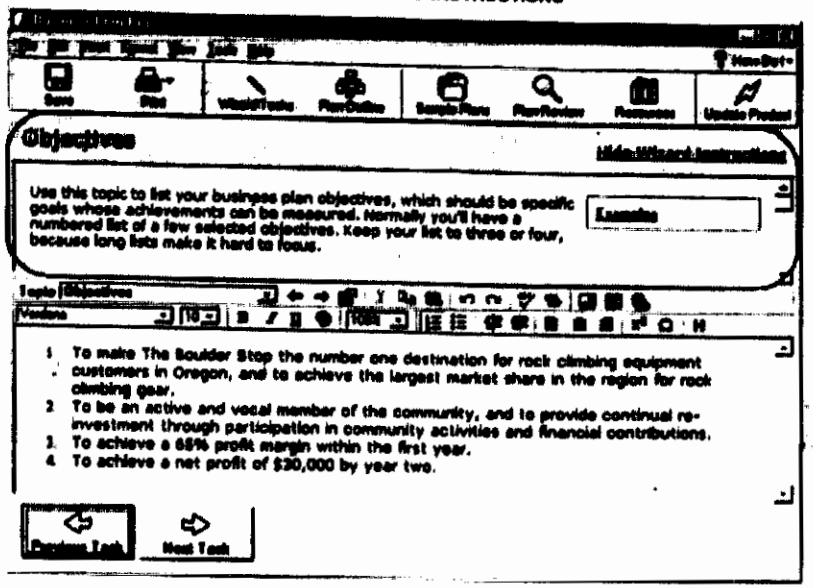


Use the tools in the formatting toolbar to change the appearance of your text paragraphs.

Instructions and Examples

The EasyPlan Wizard provides instructions and examples for each topic in the outline. As you move from topic to topic, the instructions and examples change automatically. Click on the Show Wizard Instructions link to view the Instructions. Examples can be viewed by clicking the Examples link in the the Instructions screen. Figure 5-4 shows how this looks on the screen.

Figure 5-4: Topic Instructions



The Instructions describe what information is required for a topic.

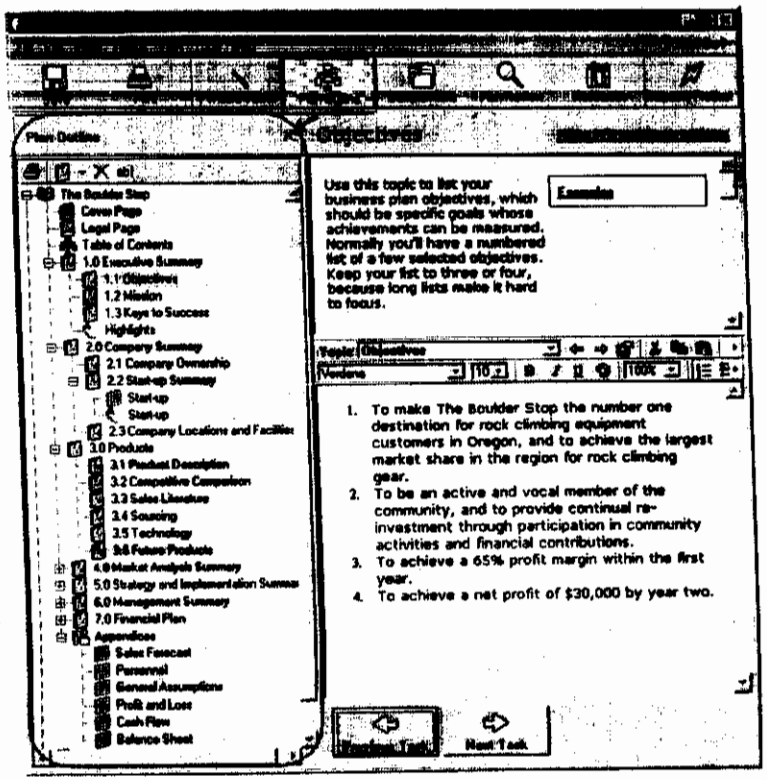
To View Examples:

Click on the Examples link in the upper right corner of the Instructions screen.

The Plan Outline

The standard BUSINESS PLAN PRO outline includes up to eight chapters and approximately 50 separate topics, depending on your EasyPlan Wizard options. The EasyPlan Wizard creates this topic outline for you. Figure 5-5 shows the main chapters in the Plan Outline.

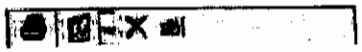
FIGURE 5-5: PLAN OUTLINE CHAPTERS



The Plan Outline includes toolbar buttons for adding new topics or deleting existing topics.

Changing the Plan Outline

You can change the outline. Use the Plan Outline toolbar, located at the top of the outline screen, to make the following changes.



The Plan Outline toolbar lets you print, insert topics, tables/charts, delete items which will not be included in the printed plan, and rename topic titles:

= **Print a Topic**

Click the Print tool to print the highlighted topic and any Notes associated with it.

= **Insert a Topic**

Highlight a topic; click the Insert Topic tool. Type in the name of the new topic.

✕ = **Delete**

Highlight the topic to delete and click the Delete tool.

ab| = **Rename a Topic**

Highlight a topic; click the Rename tool; type the new name.

TIPS **Caution on Deleting a Topic from the Outline!**

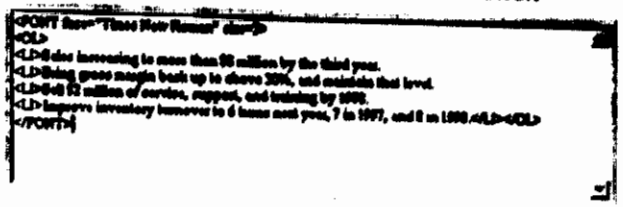
Be careful. All sub-topics below a deleted topic will be deleted as well. Once the topic is deleted, the outline will automatically renumber the remaining topics.

Working with HTML Formatting

BUSINESS PLAN PRO uses a simplified version of Hypertext Markup Language (HTML), the text formatting code used on the Internet. BUSINESS PLAN PRO uses HTML tags for font name, font size, ordered lists, bullet lists, and basic table tags as well.

The HTML Editor screen can be displayed by clicking the H icon on the far right of the text toolbar. Figure 5-6 shows an example of the HTML Editor screen for a numbered list.

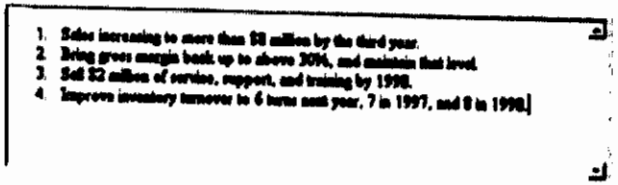
FIGURE 5-6: NUMBERED LIST IN HTML EDITOR



This is basic HTML code, the same as what is used to program Internet Web pages.

Figure 5-7 shows how the text above displays in the normal text screen.

FIGURE 5-7: NUMBERED LIST IN STANDARD TEXT MODE



This is the screen you normally see when working on the topics in BUSINESS PLAN PRO.

TIPS

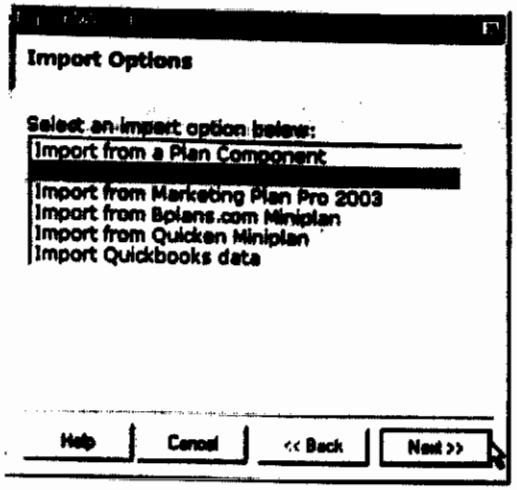
Learn HTML Elsewhere

We don't believe extensive discussion of HTML is appropriate here, because BUSINESS PLAN PRO assumes you will stay in the standard text mode while the background tools manage your numbered lists, bullet lists, and paragraph formats. If you would like to learn more about HTML coding, there are HTML tutorials readily available from the Internet.

Import a File

If you are currently using other Palo Alto Software products, you can import selected text topics and tables into your business plan file. If these programs are installed in your computer, the File > Import menu will display the Import Wizard, shown in Figure 5-8.

FIGURE 5-8: IMPORT WIZARD



The program name list will vary depending on which programs you have installed.

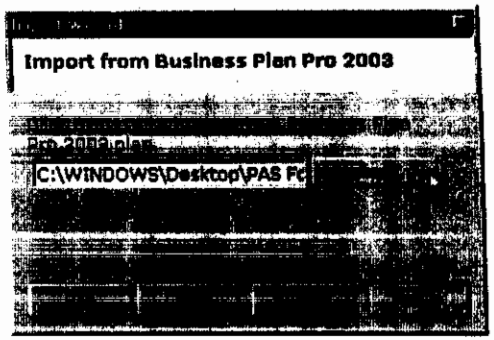
TIPS

Import MiniPlan

See Chapter 11, Working with Quicken®, for more information on how to import a Quicken MiniPlan.

Once you select a program, you can then select the file to import. A list of tables and topics lets you choose some or all to import. Figure 5-9 shows an example of importing from another BUSINESS PLAN PRO file.

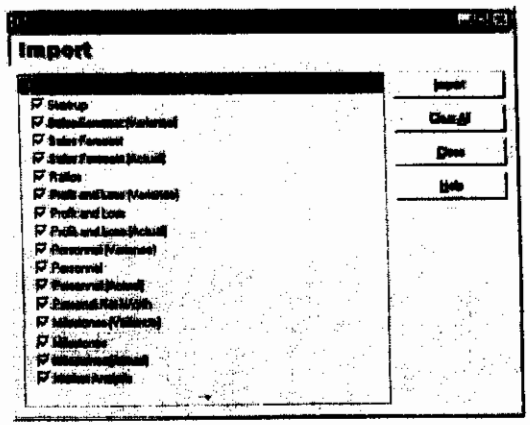
FIGURE 5-9: IMPORT DIALOG BOX



Use the Browse button to locate and select the file to import.

Once the file is selected, you can select the tables and/or topics from the file to be imported. Figure 5-10 shows an example.

FIGURE 5-10: SELECTING TABLES/TOPICS TO IMPORT



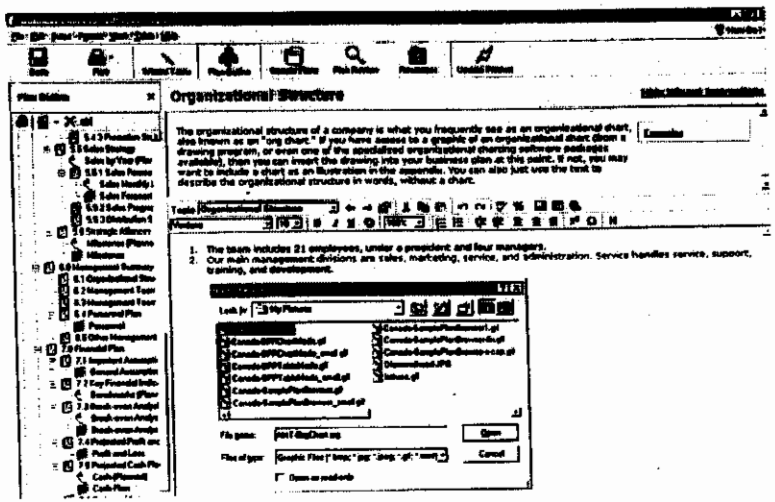
Use the list to select the table and topics to import.

Insert a Graphic Image

Graphics created outside of BUSINESS PLAN PRO can be linked to a text topic and included with your plan. The graphic formats supported are .jpg, .gif, .bmp, and .wmf.

Figure 5-11 shows an example of selecting a graphic to be inserted into the text topic, 6.1 Organizational Structure.

FIGURE 5-11: INSERT GRAPHIC IMAGE INTO TEXT TOPIC



Use the Insert Image feature to further enhance your text outline with graphics.

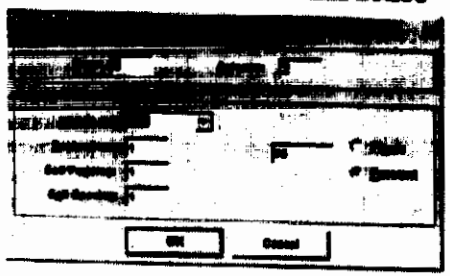
To access this feature:

Use the Insert > Image command, or click the button from the toolbar.

Insert a Text Table

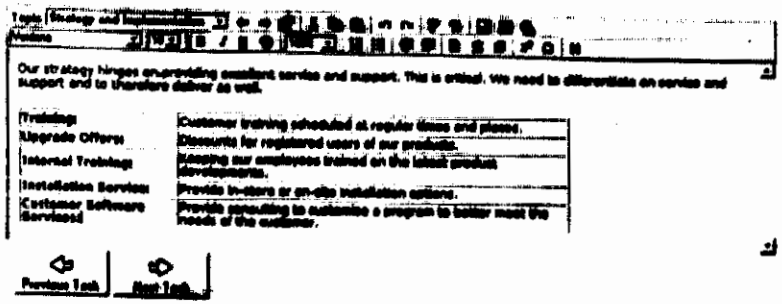
This feature is recommended to create a text column table format within a topic. It is a good alternative to using the Tab key to create a multiple-column text list because tabbed columns don't always align properly when printed. Typing your text into the table cells will assure that columns will be aligned when printed. Figure 5-12 shows the dialog and Figure 5-13 shows an example of a 2-column, 5-row table.

Figure 5-12: Insert Text Table Dialog



Text can be typed into each cell of the table and the text will "wrap" within the column's margins. The Alignment option places text as left, right, or centered within the cell.

Figure 5-13: Insert Text Table - Example



This example shows a 2-column, 5-row text table with left alignment within the cells.

Tips

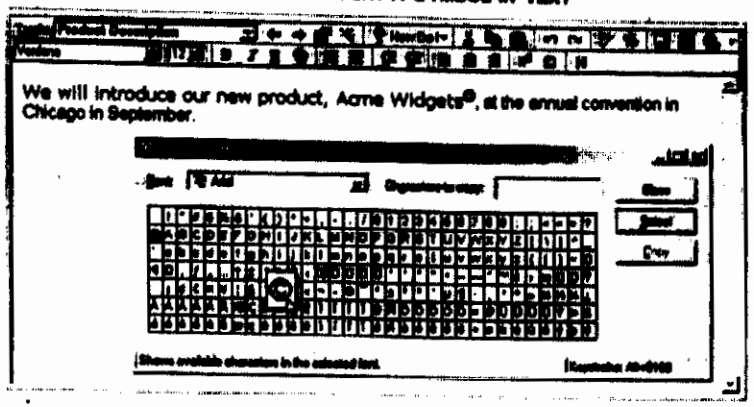
To Access this feature:

- Use the Insert > Table command, or use the ▦ from the toolbar.

Insert a Character Symbol

BUSINESS PLAN PRO makes it easy to insert symbols into your text topic. Common symbols such as copyright, register, and trademark are just a few examples of available symbols. Figure 5-14 shows an example using the copyright symbol.

Figure 5-14: Insert a Symbol in Text



The Show Character Map icon on the toolbar makes it easy to insert a symbol into your text.

Tips

To see the Character Map screen:

- Click Ω from the toolbar, or choose Insert > Symbol command.

To Superscript a symbol:

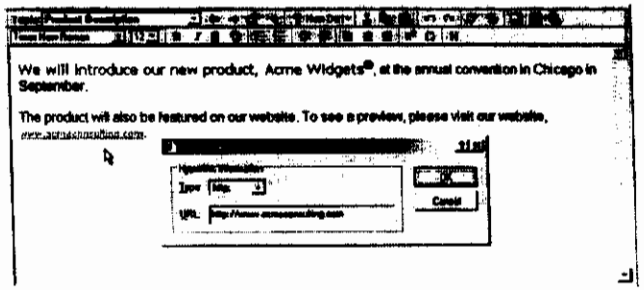
- Highlight symbol; use the x^2 button from the toolbar.

Insert Hyperlink

With Internet access available, this function lets the reader click on the caption and the link will connect and display the website address.

This feature was created especially for use with the HTML features of BUSINESS PLAN PRO. Figure 5-15 shows an example of a website link within a text topic. The Insert Hyperlink dialog box lets you type a website address. The caption is placed in the text topic at the cursor position. It displays in an underlined and colored highlight.

FIGURE 5-15: INSERT A LINK EXAMPLE



This dialog also lets you create links for email addresses, file transfer protocol (ftp:) and many other HTML codes.

TIPS **To access the Insert Hyperlink feature:**

- Choose the Insert > Hyperlink command, or click the button from the toolbar.

Adjust Your Own Plan

You can see from these examples that you want to adjust your plan to your exact context. Use the text formatting features to enhance the readability of your text, but don't skimp on solid content and well researched information.

Modify Plan Outline for Different Situations

Are you writing your business plan for investors? Are you a family-owned business looking to expand? Are you looking to sell your business? To buy a business? There are many reasons for writing a business plan and the topic outline and corresponding text, tables, and charts should target specifics to match the purpose. Here are examples of outline revisions to consider for different kinds of planning situations.

A Plan for Investors

If you are looking for outside investors, then you should add an Exit Strategy topic. This shows those investors how and when you expect to give them a return on their investment. The Exit Strategy topic would be added to your financial plan chapter.

Essentially, there are two possible exit strategies: public offering or acquisition.

The Exit Strategy topic should include references to the investment analysis, with NPV and IRR, ending valuation, and assumptions for valuation.

You should also have at least one topic on valuation, covering valuation for the initial investment and valuation at the ending point of the exit strategy. You could have a topic related to valuation in the second chapter of the plan, about the company, and you should also have a topic in the last chapter, about the financial plan. The Investment Analysis table has some basic indicators on valuation, but sophisticated investors will be looking for a detailed discussion of proposed valuations. Remember that credibility is very important.

Make sure you have strong discussions of competitive advantage and management team. Add more subtopics as necessary.

A Plan to Buy or Sell a Business

Your first chapter should include at least one topic explaining the proposed deal, who's buying and who's selling, and why.

The second chapter, about the company, needs a topic to explain how the new owners intend to absorb the purchased company. Are the names changing? Purchasing both assets and liabilities, the whole business, or just a portion? How important is maintaining the branding and image of the existing business?

The financial chapter should include at least one topic detailing the proposed handling of the Balance Sheet, the possibility of the financial concept called Goodwill, and related subjects. Your CPA will be able to fill you in on this.

A Plan for a Family Business

The second chapter, about the company, should include a discussion of family ownership.

The sixth chapter, covering management, should include details of family members included in the management team, specifically, what their roles and responsibilities are.

If family owners and operators include more than a single generation, and outside investment is not moving the company towards an exit strategy, then there might be a need for a topic on succession planning.

An Operations Plan

The operations plan is an example of a specific business plan context that frequently involves deleting some topics included in the standard outline. For example:

Many operations plans will not include the second chapter, about the company, because the plan is internal and there is no need for taking the extra time to describe the company to itself.

Many operations plans will either skip the chapter on management team, or include it only if the operations plan involves making changes to the team.

An Expansion Plan

The expansions plan is another example of a specific business plan context where deleting some topics included in the standard outline may produce a better plan. For example:

On an expansion plan you want to emphasize the new market, or new product or service. You'll still need an executive summary, but you may not need to summarize the company background. For the management team, focus on the expansion management instead of the whole management.

About Business Writing

Business writing should be clear, concise, and easy to read. Short sentences are better than long. A one-page memo is usually better than a 10-page memo. Here are some suggestions when writing your plan:

1. Proofread and edit your work. Better still, have somebody else, who didn't write it, read it. Even if you don't care about spelling, others do. Check your spelling. The built-in spell checker won't catch errors such as "there" instead of "their."
2. Be concise. Make your point and go on.
3. Do not use phrases such as "I feel," "I think," "I believe," and "in my opinion." They weaken your effectiveness.
4. Avoid using unnecessary words, such as "really" and "very," that don't add value.
5. Avoid unexplained lists. Numbered lists are good when used with explanations.
6. Use bullet points, but within text, not in headlines or captions.

Keep It Simple

A business plan is about results, and it should be practical. Keep it simple. When in doubt, simplify. Use formatting that enhances its readability.

Your Plan Tables

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You Need the Numbers 6.7
Planning vs. Accounting 6.9
Basic Accounting Principles 6.10
Modular, Linked Tables 6.11
Forecaster 6.17
Tables, One by One 6.18
- Balance Sheet 6.18
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- Milestones 6.47
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- Personal Financial Statement 6.52
- Personnel Plan 6.53
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- Start-up 6.69
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Main Help for General How-to-Use Information 6.89

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CHAPTER 6: YOUR PLAN TABLES

This is the business age of numbers. You can't get a new company financed without a business plan built on believable numbers. You can't get through your company's capital budgeting process (that is, you can't get your company to invest in your idea) without a business plan.

BUSINESS PLAN PRO® *is intended to help you meet the numbers demands without getting bogged down in the mechanics.*

Spreadsheet Overview

The linked financial tables in BUSINESS PLAN PRO® provide you with a very powerful tool for financial forecasting. Chapter 6 takes you through all of the standard tables included, and Figure 6-4 shows you how the main ones link together. These tables are all part of a built-in spreadsheet that can make all the financial calculations you need for your business plan. In the BUSINESS PLAN PRO PREMIER version you can even add worksheets and use them as you would any other spreadsheet (Microsoft Excel, Lotus 1-2-3, or Works) to customize your plan.

Referring to Cells and Ranges

Spreadsheets are based on a matrix, the mathematical name for a layout that has rows and columns. Rows are always horizontal, columns vertical.

As we work with spreadsheet formulas in BUSINESS PLAN PRO, we'll refer to cells the way most spreadsheet software does, with their row and column notation. The cell in the fourth column of the fifth row, for example, is cell D5. We refer to blocks of cells by showing the upper left first and the bottom right last, separated by a colon. So the range that goes from B5 to N10 will be written as B5:N10.

TIPS

The Spreadsheet View: Row and Column Headings

Spreadsheet row numbers and column letters don't automatically show in your tables because BUSINESS PLAN PRO doesn't need them for standard default handling. However, you can go to the Tools > Options > Tables menu to set them to show.

Data Cells vs. Locked Cells

Data Cells

With a few exceptions, green cells are unlocked. You can input data, formulas, or text.

Locked Cells

BUSINESS PLAN PRO prevents accidental errors by locking important formula cells. All black cells are locked. They contain formulas, so you can't type into them. When you try, an error message tells you that these cells can't be changed.

This locking is done on purpose, and for your benefit. It preserves the links between tables, such as the Sales Forecast table to the Profit and Loss table. The same is true for certain row labels. For example, in the Profit and Loss table, the row named "Gross Margin" is defined as Sales less Cost of Sales. Since the formula can't be changed, the label shouldn't be changed either. Nobody would want Gross Margin to be accidentally renamed to Net Margin or Profit Margin or Contribution Margin or anything else.

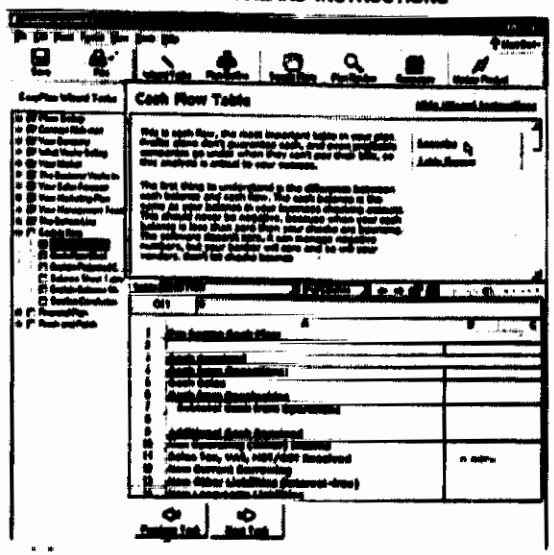
For More Help on How to Use the Tables

This manual chapter is your main resource for understanding the financial and forecasting tables included in BUSINESS PLAN PRO. It begins with important background information related to business planning and forecasting, and then goes through each of the tables one by one with more detail, explanations, tips, and examples. However, this manual is not the main resource for the program's general help and details which are available elsewhere in the program. The last pages of this chapter have more information on how to access this help.

Wizard Instructions and Examples

Table-specific instructions and examples are included in the EasyPlan Wizard® instructions.

FIGURE 6-1: WIZARD INSTRUCTIONS



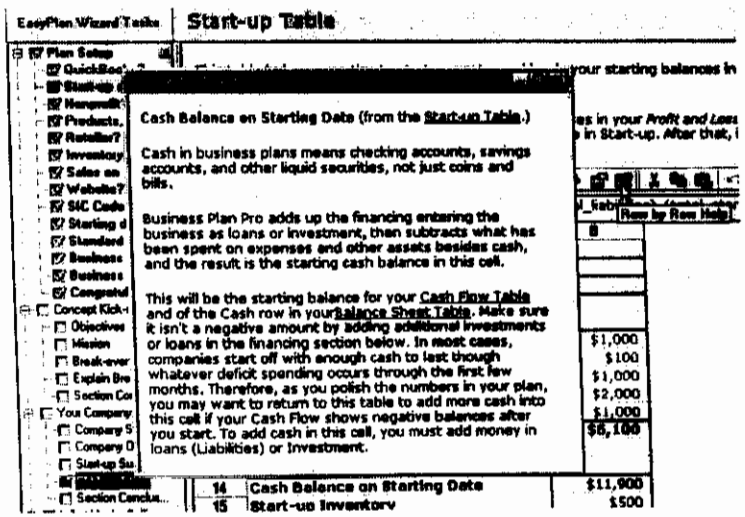
The EasyPlan Wizard includes instructions (highlighted in the illustration) and examples for every table. These are your main source for information about using the tables.

To Learn More About...	Search the Help Index for...
Viewing Table Instructions and Examples	Wizard Instructions

Detailed Row-by-Row Help

Row-by-row help includes detailed explanations for each row in the table. You can right-click the mouse in any row and select row-by-row help from the menu to open a detailed explanation.

FIGURE 6-2: ROW-BY-ROW HELP



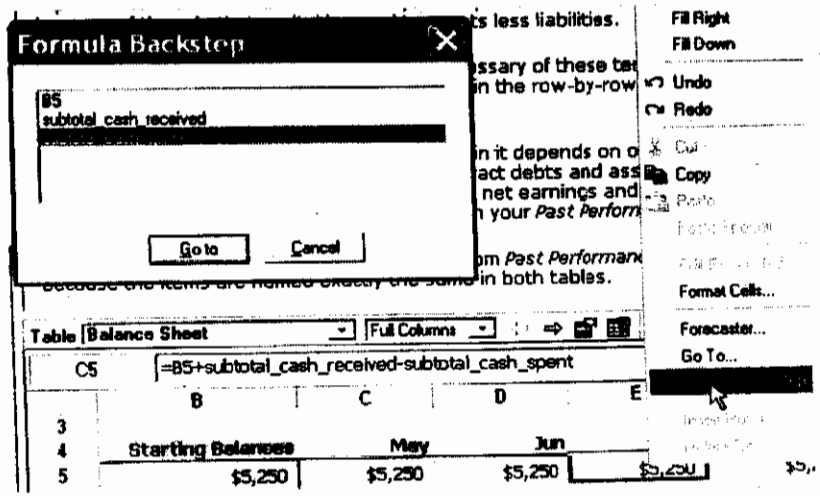
In BUSINESS PLAN PRO *Row-by-row help gives you details for the row you've selected, throughout the tables. You can access row-by-row help by right-clicking on a cell.*

To Learn More About...	Search the Help Index for...
Table row explanations and usage	Row-by-row help

Formula Backstep

The Formula Backstep feature helps you find the source information for table formulas. You can choose to switch tables to find the source information for a formula. For example, when you see a formula referring to the name "Sales," Formula Backstep lets you jump from any table to the table that contains the source range named "Sales." In Figure 6-3, the reference is to "subtotal_cash_spent" in the selected cell below. Right-click the mouse to show the Formula Backstep option.

FIGURE 6-3: FORMULA BACKSTEP



The BUSINESS PLAN PRO *Formula Backstep feature gives you the option of jumping to other ranges used in cell formulas. You can access this feature by right-clicking on a cell.*

To Learn More About...	Search the Help Index for...
Find source of table formula components	Formula Backstep
Add or delete topics, tables, charts	Plan Outline

You Need the Numbers

This financial tool has been developed and refined for more than 18 years now, has been used with hundreds of thousands of successful business plans, and it works. It is financially and mathematically correct.

The software will help you generate the business projections you need: linked financial statements, practical forecasts, and milestones with budgets. You can do the whole analysis, from start-up to business ratios, by taking the tables one at a time and working in your assumptions. All you do is type your assumptions in the green cells, avoid the black cells, and, you don't have to program anything. Sales, personnel, income, cash, balance, ratios, and other tables are linked together already, so a change in one flows logically to all the others.

However, like all business models, or any other projection of the future, it is at best a very good educated guess. It depends on assumptions. It is a general tool that can be applied to millions of specific cases. It can always be improved, tailored, and customized. The objective of this chapter is to give you a detailed understanding of the underlying assumptions, the mathematics, and the mechanics of the BUSINESS PLAN PRO projections. This manual helps you to use the specifics of the software effectively.

We want you to use BUSINESS PLAN PRO for what it does well. It has a solid, tested, robust financial model at its core, linking all of the key financial views into a complete system. Change any one element and all the others change automatically. Use it to develop your business financials. Use its "what-if" facilities. Work with your business plan financials to understand the key assumptions and think about how they might change. What happens if you sell more or less than planned, and what if you spend more than planned? What if utilities double, or rent increases? You have to at least consider these possibilities, and use your business plan to anticipate the implications. That's a lot of what BUSINESS PLAN PRO is about.

Remember, however, that the software is a tool. It is only as good as the assumptions you put into it. Furthermore, it depends on mathematical modeling to project critical elements—receivables, for example—into the future, based on assumptions. These projections are just that, projections, and the math behind them is complex and elegant, but still subject to some important assumptions.

This chapter will point out key assumptions and show you in detail how to work with them, and how to change them when you think you should.

Within this manual we'll be looking at these points and showing you how to adjust and perfect your specific plan, using the knowledge of the programmability of BUSINESS PLAN PRO.

Planning with Computers

Computers don't think, they just do the numbers. Computers are very dumb contraptions that can be downright dangerous when you expect them to think for you. They are absurdly literal, and, worse still, literal in their own very narrowly defined language. Program a computer to tell you that 2+2=5 and it will swear that 2+2=5 if you want.

Use your financial projections but don't believe them—especially when dealing with computers and software. Because there is something magical about neatly ordered rows and columns of numbers shining at you through a computer screen or marching from the printer, you may forget how meaningless they really are.

So use the dumb thing for what it does well. You do the thinking, let the computer do the numbers, and the division of labor will work wonders. Remember the origins of the spreadsheet, back with the pencils and green lined paper, and think in those terms; you're still in that realm, but now you've got a tireless worker to change your numbers instantly. Now that's power.

The best analyst uses human judgement to guide the number crunching. If you accept the great split between rational, analytic thinking and intuitive, creative thinking, then you probably realize the best work requires a little of both. Use your head to guide the analysis.

How do you get the right combination? The simplest way is by doing the numbers while running the financial analysis. Change factors repeatedly. Each new iteration of the plan is another go at understanding a problem, each is another possibility to be considered. The world is far too complex for simple answers. Solving problems is akin to recording stereo albums: the artist sings multiple tracks into a single tape and magnifies and multiplies the voice and voice effects. The more angles considered, the better the understanding of the final product and its alternatives. Look at your business plan at many different volumes, at many different prices, at many different kinds and levels of expense, and the set of numbers you finally accept will be a better representation of the full range of possibility.

There is an irony here. The best market forecasters use a lot of computer models, but they don't believe them. Output from different models stimulates thinking about alternatives, causes and effects, and different outcomes, but output is not to be believed, just considered.

Words and Numbers

A complete business plan needs both words and numbers. You can't tell the whole story with words alone, and you can't tell it with just numbers either. Make sure the numbers match the words.

Planning vs. Accounting

There is a clear distinction between planning and accounting. Planning begins today and goes forward into the future. Accounting ends today and goes backward into the past. Planning is for making decisions, setting priorities, and management. Accounting is also for information and management, of course, but there are legal obligations related to taxes. Accounting must necessarily go very deep into detail. Planning requires a balance between detail and concept, because there are times when too much detail is not productive.

Many people fail to understand the distinction and put disproportionate attention, as they develop a plan, into accounting details. For example, tax reporting and proper accounting requires detailed lists of assets and depreciation, where for planning purposes a good estimate is more efficient.

To understand this difference, consider the relative proportion of uncertainty in a forward-looking estimate of depreciation vs. a sales forecast. The AMT computer store, one of our BUSINESS PLAN PRO sample plans, projects depreciation of approximately $13,000 per year. It expects sales to rise from $5 million to $9 million in three years. AMT could develop a plan that lists future asset purchases and uses depreciation functions to depreciate each future asset according to accepted formulas. Doing that would probably reduce the uncertainty built into the depreciation estimate, but how much uncertainty would be reduced, for how much effort. A 50% variation in the projected depreciation, either way, comes to less than $10,000, while a 10% variation in the sales forecast in the last year is worth $900,000. A good business plan process maintains proportion between effort and value. Accounting needs detailed depreciation in this company, after the fact; but the business plan, looking three years ahead, doesn't.

TIPS

Make It Yours

Remember, nothing about BUSINESS PLAN PRO is written in stone...you change formulas, revise formulas, ignore the built-in tables, or even (with the PREMIER version) add your own Excel-compatible tables...it's your plan.

You can also unlink tables so they don't show. Use the Plan Outline view to add and delete topics, unlink tables, and—if you have the PREMIER version—add tables.

Basic Accounting Principles

BUSINESS PLAN PRO respects the principles of accounting. It has to; without that, it can't do the financial analysis people expect. If you aren't familiar with basic bookkeeping, at least be aware of these basic accounting rules:

- **Assets are always equal to capital plus liabilities.** BUSINESS PLAN PRO uses this fact to predict your cash balance in the Start-up table, Cash Flow, and Actual Balance Sheet.
- **Cash Flow is different from Profit and Loss.** Your profits are an accounting concept, sales less costs and expenses. Cash flow includes Balance Sheet changes that aren't covered in Profit and Loss. For example, sales on credit produce profits but no money until invoices are paid. Paying off loan principal doesn't affect Profit and Loss. Purchasing assets doesn't affect Profit and Loss.
- **Don't confuse expenses with assets.** Most businesses prefer expenses to assets, because money spent on expenses is deductible, but money spent on assets isn't. Don't try to make research or software development money into assets, because you'd end up with higher taxes, and assets on your books that can't be sold. If development produces a new product, your business gets the benefits in future sales and profits, not in assets on its books.
- **One of the most important principles of accounting is the principle of materiality.** This principle means that if it doesn't make much difference, you don't have to worry about it. It is because of this principle that we recommend not getting into infinite detail in depreciation, assets, and tax treatments. When you are working with a sales forecast and estimating uncertainty far into the future, you should not worry much about detailed depreciation three years from now. The difference in sales plan-vs.-actual will be far more important than that in the details of depreciation.

TIPS

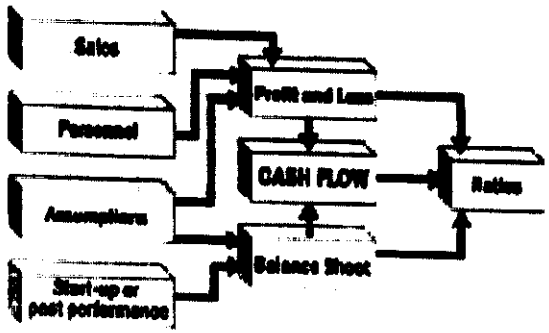
More on Accounting Principles In Hurdle: The Book on Business Planning

Make sure you read the *About Business Numbers* section of your Hurdle book, which explains this in greater detail. Use the Tools > Resources > Books > Hurdle link to read the book in PDF format.

Modular, Linked Tables

BUSINESS PLAN PRO builds its financial analysis on logical modules, separate tables all linked together. Figure 6-4 offers a visual explanation. It shows how these relationships work in general.

FIGURE 6-4: MODULAR, LINKED TABLES



The business analysis tables are linked together for clearer analysis.

The key is that changes in any one of these tables will automatically reflect properly in all the others.

- Your Sales Forecast should show Sales and Cost of Sales. The same numbers in the Sales Forecast are the ones you use in the Profit and Loss.
- You have a separate Personnel table, and the numbers you input into that table will be the same numbers that show up for Payroll Expenses in your Profit and Loss table.
- Your Profit and Loss table should show the same numbers as Sales and Personnel Plan tables in the proper areas. It should also show Interest Expenses as a logical reflection of interest rates and balances of debt.
- Your Cash Flow has to reflect your Profit and Loss, plus changes in Balance Sheet items and non-cash expenses such as depreciation, which are on the Profit and Loss. The changes in the Balance Sheet are critical. For example, when you borrow money, it doesn't affect the Profit or Loss (except for interest expenses later on), but it makes a huge difference to your checking account balance.
- The Balance Sheet has to reflect the Profit and Loss and the Cash Flow.
- Your Business Ratios should calculate automatically, based on the numbers in Sales, Profit and Loss, Personnel, Cash Flow, and Balance Sheet.

TIPS

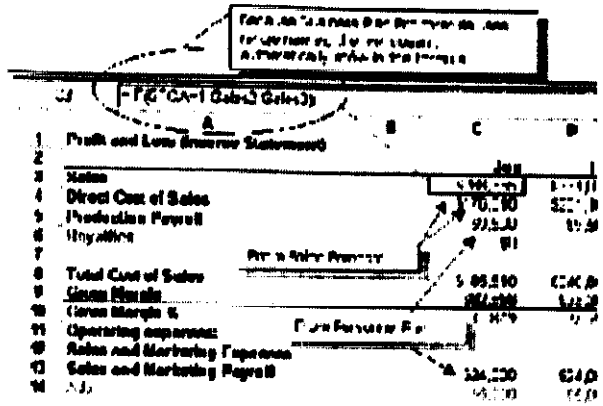
Navigation Tip:

You can also use the Views menu to select any of the tables included in your plan. Once you have a table displayed, you can use the table dropdown in the tool bar to switch to any other table. Also, to display any topic, table, or chart, click on its name from the Plan Outline screen.

Working with Linked Tables

Figure 6-5 shows how the links work for the Profit and Loss table in a sample business plan. The view shows the top of the table, not the whole table. The actual links showing in the illustration are coming in from the Sales Forecast and the Personnel Plan.

FIGURE 6-5: WORKING WITH LINKED TABLES



Simple spreadsheet formulas link the tables together.

- At the top of the table you see Sales and Direct Cost of Sales. These rows come from the summary rows in the Sales Forecast. The cells are locked on purpose; they can't be changed.
- The rows containing the linked information are locked. Users can't change them. Otherwise, users who do not understand linking could type over the linking formulas.
- The formulas in linked cells won't always easily show that they are linked cells. In the example in Figure 6-5, the formula for sales in cell C3, which shows in the edit bar, uses an IF function and named ranges. It isn't immediately obvious that the named ranges come

from another worksheet, one named Sales. That's clear in the documentation and in the help files, but not in the formula itself.

- You can use the formula backstep feature to jump automatically to the source information when a cell formula refers to other worksheets or variable names.

To Learn More About...	Search the Help Index for...
Find source of table formula components	Formula Backstep

TIPS

Tables Aren't Strictly Sequential

Don't expect to finish one table before starting another. Normally you'll go back and forth among the tables, revising as you go. It doesn't really go one table at a time.

Developing Your Own Links

Because BUSINESS PLAN PRO is built on its own Microsoft Excel® compatible spreadsheet it includes the facility to use more than 100 spreadsheet functions compatible with Microsoft Excel. For example, you can easily link a row in the Personnel Plan or Profit and Loss to a specific row in the Sales Forecast, for calculating commission payments to employees or outside representatives.

Users of the PREMIER version can also link from the user-defined tables into the tables for sales, expenses, or cash flow. You can create specific worksheets for a second year in months, for example, or three years in quarters, or for a 10-year plan. You can create worksheets to itemize capital expenses, or detail depreciation, or to break payroll burden into components.

Since the background is a complete spreadsheet, as programmable as the major spreadsheets, there's very little you can't do. If you use an Excel function exactly as it would work in Excel®, it will probably work the same in BUSINESS PLAN PRO.

The details are explained in Chapter 10, Advanced Tables, of this manual. There you'll find detailed instructions, background information, and examples with illustrations. A complete list of range names is included in Appendix A.

Simplifying Assumptions

BUSINESS PLAN PRO does follow the general model of business planning, as opposed to accounting, when it comes time to make simplifying assumptions. We want to call your attention to several of the more important assumptions we make. We'll also explain why we make them, why they work in most cases, when they don't work, and what to do when they don't work.

The Government Doesn't Pay for Losses

As the BUSINESS PLAN PRO documentation explains in several places, taxes are based on simple mathematics. Your estimated tax in the Profit and Loss table is the product of multiplying pretax profits by the tax rate in your General Assumptions table.

However, BUSINESS PLAN PRO looks at your annual profits and sets the tax rate to zero if you have a loss for the year. This avoids the awkward situation of overestimating your cash by assuming negative taxes in a loss.

Furthermore, BUSINESS PLAN PRO doesn't automatically calculate loss carried forward situations. The loss carried forward refers to losses in previous tax years that reduce taxes in a profitable year. That happens when a company finally makes a profit after initial losses, and those losses are deducted from current year taxes.

The simplifying assumption in this case is taxes as simple mathematics. When you have a profit for the end of the year, BUSINESS PLAN PRO multiplies pretax profits by the tax rate percentage in your General Assumptions table, and that's its estimate for taxes. If you don't have a profit, BUSINESS PLAN PRO sets your tax rate to zero.

This is rather simple. We could make it a lot more complex with lookup functions for graduated tax rates. We could do formulas to change tax treatment in different countries. We automatically change the treatment for loss situations, but only in a simple global way, setting the effective tax rate to zero when the entire year produces a loss. The tax rate forms specify pages of different rates. Furthermore, the real rates depend on specific deductions and specific situations.

Still, this is about planning, not accounting, and simple is good. The estimated tax rate is easy to understand and easy to apply. You get a lot more planning power from a simple and obvious estimated input than from a complex, hard-to-follow formula. There is a real danger of automating assumptions to the point at which users don't realize how much is involved, and how critical those assumptions are.

Depreciation as a Single Row of Simple Input

BUSINESS PLAN PRO uses a single row of data input to contain your estimated depreciation. This simplifying assumption is much better than a complex set of depreciation formulas, for several good reasons:

- Government tax authorities set strict rules for when and how assets can be depreciated. These rules are not always logical.
- Different assets are allowed to be depreciated according to different formulas: there is straight-line depreciation, double declining balance, sum-of-the-years-digits, and several other formulas.

- The formulas can't be applied to groups of assets; each asset generally has its own set of rules, according to which type of asset it is.
- If we decided to apply detailed formulas to future assets, we'd have to estimate the purchase of those assets, and keep track of each significant asset separately, and keep track of each asset's depreciation formula. The detail required would produce an artificially difficult data problem without really reducing uncertainty in any practical way.

TIPS

Depreciation Tip

If you do have a business that depends on high-priced capital assets, so that depreciation and purchase of assets is very significant, you can get detailed instructions and even examples of depreciation functions from Chapter 10, Advanced Tables.

An educated guess is a better option. If you take a percent of assets value per year, based on past years' depreciation, that's a good option. If you don't have past data to use, then ask somebody who does. Ask your accountant. In the worst case, you can take 10% of assets value per year and not go too far wrong.

?

To Learn More About...	Search the Help Index for...
Spreadsheet/table features	Add tables (PREMIER version) Linking tables Spreadsheet formulas Spreadsheet overview

Interest Rates as Simple Mathematics

BUSINESS PLAN PRO treats loan interest and principal payments according to standard accounting: Interest, which is deductible against income as an expense, is in the Profit and Loss table. Principal repayment, which is not deductible, affects the Cash Flow and the Balance Sheet, but not the Profit and Loss.

Following the accounting standard, it calculates monthly Interest Expenses by multiplying the balance for any given month by the Interest Rate assumption in General Assumptions. It calculates Annual Interest by taking the average balance and multiplying that times the Interest Rate in the General Assumptions. Both of these calculations are logical and easy to understand.

However, as easily understood and as logical as these calculations may be, they may not be nearly as exact as you'd want them for accounting purposes after the fact.

- One potential problem is that the bank might calculate interest based on the beginning balance, while BUSINESS PLAN PRO calculates based on the ending balance.

- Another problem is the timing of the loan: a loan taken out on January 28 produces the same interest estimate in BUSINESS PLAN PRO as a loan taken out on January 3.
- Furthermore, BUSINESS PLAN PRO will take a loan taken out at any time during the second, third, fourth, or fifth year of a plan and calculate its average balance as ending balance plus beginning balance divided by two. Since the beginning balance was zero, that calculation divides the loan amount by half, for planning purposes. That means that interest will be as if the loan were taken out on June 30, the middle of the year, regardless of whether it was planned for the first month or the last month.

Most of these problems are not really problems in business plans. Good practical estimates, easy to explain, are more valuable than detailed exact calculations based on uncertain assumptions. Remember this is a plan, not tax accounting, and it needs to summarize and simplify. If the business plan estimate doesn't match to the penny, don't worry; an estimate will do.

TIPS

Principal Payment Tip

BUSINESS PLAN PRO does include financial functions you can use to determine correct principal payments and interest payments on loans, according to standard financial formulas. These are explained in detail in Chapter 10, Advanced Tables.

However, if your business plan should require more detailed interest calculations, because of the significance of the amounts, you can adjust the estimated interest rates in the General Assumptions table to produce exactly the interest you want. Then all you need to do for your plan is explain the reason for the interest rate assumptions in the text that accompanies the General Assumptions table.

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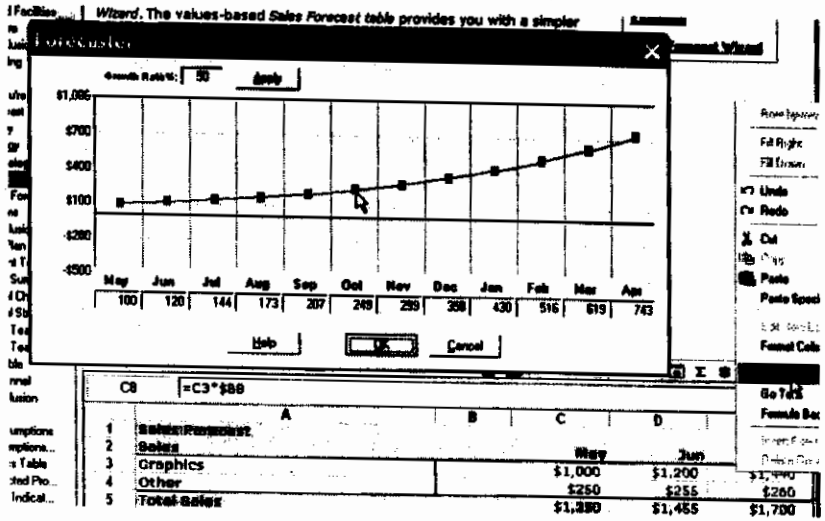
Forecaster

Sometimes it's easier to develop a forecast using graphics tools. When you're in a table working on developing a forecast, you can go to the Edit > Forecaster command to pop up this unique BUSINESS PLAN PRO graphic forecasting tool. Figure 6-6 shows an example.

FIGURE 6-6: THE FORECASTER™



The Forecaster™ tool lets you develop your forecast by clicking the mouse and changing the line. It's quick and powerful, and built into the tables. Access it on the Edit menu or by right-clicking in a cell.

You can set growth rates by typing values in the Forecaster month cells, or click the mouse in the graph to draw in a forecast.

Tables, One by One

TIPS

Current = Short-term

In its financials tables BUSINESS PLAN PRO uses the term "current" rather than "short-term" for any liabilities, assets, interest, notes, borrowing, etc. with a time-frame of less than five years. Generally, anything with a time-frame over five years is considered long-term.

Balance Sheet

TIPS

Balance Details

Don't be surprised to find the business plan Balance Sheet much more summarized than the Balance Sheet in your accounting statements. This is normal. The accounting needs to build the Balance from detail, but in the business plan, your Balance Sheet needs a one-to-one correspondence with your Cash Flow estimate. You must have rows in Cash Flow to change the Balance Sheet items. So summarize.

The three Balance Sheet input rows are three of the most important in your business plan. Accounts Receivable, Accounts Payable, and Inventory. Your plan settings determine whether you see Accounts Receivable and inventory. Accounts Receivable appear only if you are set for sales on credit, and Inventory only if you're set for inventory, in plan settings.

?

To Learn More About...	Search the Help Index for...
Matching your plan tables to your business	Plan settings

BUSINESS PLAN PRO calculates all the rest of the Balance Sheet automatically, from your assumptions in other tables.

- Either the Start-up table or Past Performance sets your Starting Balances. Each plan has one or the other, depending on answers to EasyPlan Wizard questions.
- Cash, assets other than receivables and inventory, liabilities other than payables, and capital all depend on inputs in either your Start-up, your Past Performance, or your Cash Flow table.

More Detail on Three Key Estimates

Figure 6-7 shows the balance sheet from the a start-up pizza restaurant plan. In this example, because of plan settings, all three of the key input rows in the Balance Sheet are showing:

- Accounts Receivable start at zero because there are no sales for the first two months. Beginning in the third month, amounts start to show.
- Inventory shows only the starting inventory balance in the first two months, but begins to have larger balances as sales begin in the third month.
- Accounts Payable begin in the first month, because expenses are incurred.

FIGURE 6-7: BALANCE SHEET TABLE

C10 =new_accounts_payable

	A	B	C	D	E
1	Pro Forma Balance Sheet				
2					
3	Assets				
4	Current Assets				
5		Starting Balances	Jan	Feb	Mar
6	Cash	[illegible]	$48,648	$51,397	$50,601
7	Accounts Receivable	$0	$0	$0	$1,049
8	Inventory	[illegible]	$900	$900	$8,105
9	Other Current Assets	[illegible]	$2,500	$2,500	$2,500
10	Total Current Assets	[illegible]	$51,648	$54,397	[illegible]
11	Long-term Assets				
12	Long-term Assets	$50,000	$50,000	$50,000	$50,000
13	Accumulated Depreciation	$0	$1,250	$2,500	$3,750
14	Total Long-term Assets	$50,000	$48,750	$47,500	$46,250
15	Total Assets	[illegible]	[illegible]	[illegible]	[illegible]
16	Liabilities and Capital				
17					
18			Jan	Feb	Mar
19	Accounts Payable	$0	$2,965	$3,305	$12,973
20	Current Borrowing	$0	$0	$0	$0
21	Other Current Liabilities	$0	$0	$0	$0
22	Subtotal Current Liabilities	$0	$2,965	$3,305	$12,973
23					
24	Long-term Liabilities	[illegible]	[illegible]	[illegible]	[illegible]
25	Total Liabilities	[illegible]	[illegible]	[illegible]	[illegible]
26					
27	Paid-in Capital	[illegible]	$70,000	$70,000	$70,000
28	Retained Earnings	($5,100)	($5,100)	($5,100)	($5,100)
29	Earnings	$0	($17,215)	($[illegible])	($[illegible])
30	Total Capital	[illegible]	[illegible]	[illegible]	[illegible]
31	Total Liabilities and Capital	[illegible]	[illegible]	[illegible]	[illegible]
32	Net Worth	[illegible]	[illegible]	[illegible]	[illegible]

The Balance Sheet lets you estimate balances for the three key items—Accounts Receivable, Inventory, and Accounts Payable—and gets the rest of its numbers from links to other tables.

TIPS

The Cash Pilot Alternative

In the PREMIER version, you have the option of using the Cash Pilot to estimate these same three items: receivables, inventory, and payables.

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To Learn More About...	Search the Help Index for...
Easy estimates for receivables, payables, inventory	Cash Pilot (PREMIER version)

Estimating Accounts Receivable

You can look in the edit bar in Figure 6-8 to see the default formula for Accounts Receivable in the third month, which is cell E6, the cell selected. The formula for that cell is:

=sales_on_credit+Assumptions!D11

You could use the Formula Backstep facility to see what the phrase "Assumptions!D11" stands for. It is a reference to cell D11 in the General Assumptions table, which is the sales on credit for the previous month. So therefore the relatively simple Accounts Receivable estimate assumes the company will have the last two months of sales on credit in its receivables at any time. This is equivalent to waiting two months to get paid, a conservative assumption.

And of course you can also use Formula Backstep to check the meaning of "sales_on_credit." That important number is in your General Assumptions table, where it is the result of multiplying your sales times your assumption for percent sales on credit.

The formula for the very first month is irrelevant in this example, but for the record in the first month the default formula has to change because it doesn't have data for previous sales on credit by month. In a start-up company this rarely matters; for an ongoing company the default formula will take half of the starting receivables in the first month, and the remainder in the second month.

To calculate annual receivables, the default formula establishes the mathematical relationship between total sales on credit in the first year and the ending balance of receivables, and applies that relationship to the next year's sales on credit.

Remember, this is just an educated guess. You will not harm your business plan in any way by replacing this with your own guess, if you believe your own data is more accurate. All the cash flow assumptions and the rest of the financials will still work correctly, whether or not you keep the original receivables formula.

For example, one change you might decide to make would replace the formula in E6 with the more simple one-month receivables formula, which would be, simply:

=sales_on_credit

A company that gets paid exactly one month after delivering its invoices will always have its current month sales on credit as the ending balance for that month. This simple change will improve your estimated cash flow, by reducing the amount of receivables to finance.

You can follow this logic to make your estimated receivables roughly equivalent to whatever you want them to be. For another example, make the formula for E6:

=sales_on_credit+(.5*AssumptionsID11)

... and with that you'll have approximately 45 days of sales on credit in receivables. If you follow that logic, you can imagine how to adjust this formula however you want. Furthermore, there is no need to follow that logic either; you can also just type your direct estimates into the balance sheet row.

Of course whatever adjustments you make, you'll want to copy into multiple columns, using the Copy and Paste commands in the Table Edit menu.

However, is it accurate? Will your company really be paid in one month? That's the critical question, and it isn't related to mathematical formulas. If you are an ongoing company, you have real results to analyze, and your Past Performance table will help. If you are a start-up, you have to make an educated guess. If you know your industry well or you can talk to people now in the same business, they may be able to help you make a good estimate.

FIGURE 6-8: RECEIVABLES ESTIMATOR FORMULA

E6 =sales_on_credit+AssumptionsID11

	A	B	C	D	E
4	Current Assets	Starting Balances	Jan	Feb	Mar
5	Cash	$51,900	$48,642	$31,297	$20,801
6	Accounts Receivable	$0	$0	$0	$1,049

The formula for March Accounts Receivables shows in the edit bar in this illustration.

TIPS

Educated Guesses on Three Critical Rows

Default formulas assume that your company pays its bills in a month, but gets paid for invoices in two months, and has about 10% more inventory than cost of goods sold. These are just educated guesses. Those formulas are unprotected so that you can change them. Type your own estimates directly, or use your own formulas. This isn't math or financial dogma, it is just a good guess.

Estimating Inventory

The default formula for inventory is quite simple, and one that you may well want to override with your own estimate. Figure 6-9 shows the standard formula in cell F7 in the example. The formula is:

=IF(E7-cost_of_unit_sales>0,E7-cost_of_unit_sales,1.1*cost_of_unit_sales)

FIGURE 6-9: INVENTORY ESTIMATOR FORMULA

F7 =IF(E7-cost_of_unit_sales>0,E7-cost_of_unit_sales,1.1*cost_of_unit_sales)

	A	C	D	E	F
4	Current Assets	Jan	Feb	Mar	Apr
5	Cash	$48,642	$31,297	$20,801	$6,604
6	Accounts Receivable	$0	$0	$1,049	$2,885
7	Inventory	$500	$500	$5,195	$9,086

The standard inventory estimator formula is an educated guess. You can replace it with your own estimate or your own formula.

We can look at this formula in detail:

- The phrase "cost_of_unit_sales" comes from your sales forecast. It represents the inventory included in cost of goods sold, or cost of sales.
- The =IF Function is a good example of built-in Excel-compatible spreadsheet functions. For more detail, search your Help Index for "=IF Function" or refer to the advanced programming instructions in Chapter 10 of this manual. The function checks whether or not the previous inventory balance (in cell E7) was greater than the current month's cost of sales. This is an Excel-compatible, standard spreadsheet function. The first portion, before the first comma, is called a logical test. If that test is true (meaning that the amount in E7 less inventory usage is greater than 0), then the formula processes the second portion, between the first comma and the second. If the test isn't true, then the formula processes the final portion, after the second comma.

- So therefore, if the previous period's ending inventory is greater than inventory in cost of sales, the formula simply subtracts that amount from inventory. In other words, if the previous inventory was enough for this month's sales, the formula just subtracts that amount from inventory.
- And also, if the previous inventory wasn't more than this period's inventory use, then the formula makes the ending balance the same as this month's use plus an additional 10% (1.1 in the example). This is not high finance or complex mathematics, it is just a way to estimate ending inventory.

To calculate annual inventory, the default formula establishes the mathematical relationship between direct cost of sales in the first year and the ending balance of inventory, and applies that relationship to the next year's projected direct cost of sales.

Remember, this is just an educated guess. You will not harm your business plan in any way by replacing this with your own guess, if you believe your own data or estimates are more accurate. All the cash flow assumptions and the rest of the financials will still work correctly, whether or not you keep the original receivables formula.

For example, one change you might decide to make would replace the 10% in the formula in F7, Figure 6-9, with 20% (1.2), 50% (1.5), or 0. Or, for another example, you could set a minimum inventory level. Of course whatever adjustments you make, you'll want to copy into multiple columns, using the Copy and Paste commands in the Table Edit menu.

Estimating Accounts Payable

In Figure 6-7, the edit bar shows the formula for Accounts Payable in cell C18. The formula is, simply:

=New_Accounts_Payable

You can use the Formula Backstep to jump to the range named "New_Accounts_Payable," or just go to the General Assumptions table and you'll see it there, as shown also in Figure 6-15.

What the formula ends up doing is assuming that you'll pay all your bills in one month, so that at the end of each month your ending balance of Accounts Payable is the same as all the new entries to Accounts Payable in that same month. The logic for this row is very much like the logic for Accounts Receivables, so you could for example assume payments in two months by changing the formula for D18 to be:

=New_Accounts_Payable+Assumptions!C12

... or you could imitate payments in 45 days by making the formula:

=New_Accounts_Payable+(.5*Assumptions!C12)

To calculate annual Accounts Payable balances, the default formula establishes the mathematical relationship between sales in the first year and the ending balance of Accounts Payable, and applies that relationship to the next year's projected sales. .

Remember, this is just an educated guess. You will not harm your business plan in any way by replacing this with your own guess, if you believe your own data or estimates are more accurate. All the cash flow assumptions and the rest of the financials will still work correctly, whether or not you keep the original receivables formula.

Many Balance Items Depend on Inputs in Cash Flow

Many Balance Sheet items depend completely on inputs in the Cash Flow table. For example, compare the entries in Other Current Assets in the Balance Sheet to the entries in rows related to Current Assets in the Cash Flow, which is the row named "Sales of Other Current Assets" in the upper section and "Purchase of Other Current Assets" in the lower section. What you input in Cash Flow changes the Balance Sheet. That's also true with all three of the Liability rows, and Long-term Assets as well. Amounts typed into Capital Input in Cash Flow directly affect Paid-in Capital in the Balance Sheet. Dividends in the Cash Flow subtract from Retained Earnings.

Understanding Earnings and Retained Earnings

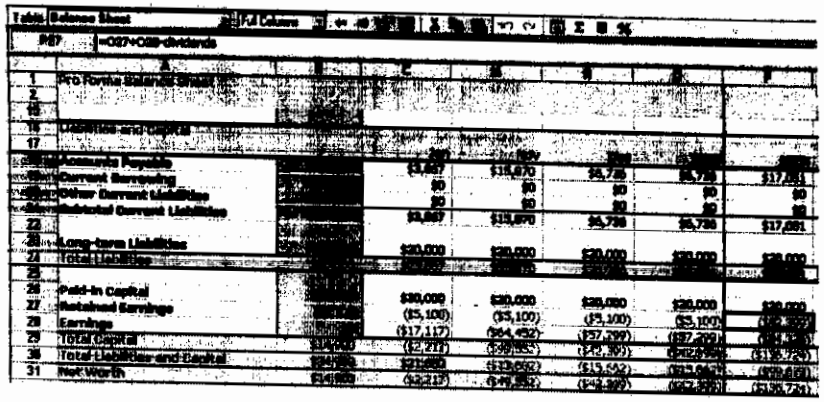
Figure 6-10 shows how BUSINESS PLAN PRO handles Retained Earnings, following standard accounting convention. The amounts in current-period earnings are moved into Retained Earnings once a year, at the end of the year.

In the January column, the formula adds earnings from the Starting Balance into Retained Earnings. It also subtracts any Dividends, from the Cash Flow table (although in the example there are none). The formula in cell C27 is =B27+B28-Dividend .

Retained Earnings remain unchanged throughout the rest of the year. The Earnings row accumulates earnings for the year, rather than showing the earnings of each month. That means that the Earnings shown for November include cumulative earnings from January through November. The formula for:

- cell M28 is =Net_profit+L28
- cell N28 is =Net_profit+M28

FIGURE 6-10: RETAINED EARNINGS



Some columns are hidden in order to show the starting balance, three monthly columns, and two annual balances.

The result of this treatment is that the Earnings shown for the year 2002 in column O, cell 28, are the total earnings for the full year. This matches normal accounting conventions for an end-of-year Balance Sheet, displaying Earnings for the full year. This is why we don't move Earnings to Retained Earnings monthly, but only at the end of the year—so your annual Balance Sheet column, which is what prints in the text of the plan, shows the full year's earnings.

The next year's Retained Earnings follows the pattern, adding previous Earnings and subtracting Dividends. The formula for cell P27, 2004 Retained Earnings, shows in the Figure 6-10 edit bar. It adds previous Earnings to Retained Earnings and subtracts Dividends.

TIPS

Retained Earnings

If you have trouble with the flow of retained earnings, remember that earnings and retained earnings are essentially the same thing ...we like to see the earnings show just the last period's earnings, but the sum of the two is what's really important. And you can watch how retained earnings closes the loop on the Balance Sheet, so that Capital plus Liabilities equals Assets.

Break-even Analysis

This table lets you determine what you need to sell, monthly or annually, to cover your costs of doing business—your break-even point. Figure 6-11 shows the break-even analysis included with BUSINESS PLAN PRO.

TIPS

Do the Break-even Table Twice

Do the break-even table twice: first, with educated guesses for assumptions, as part of the initial assessment, and later on, using your detailed Sales Forecast and Profit and Loss numbers. Both are valid uses.

FIGURE 6-11: BREAK-EVEN ANALYSIS

O8 =total_operating_expenses/12

	A	O
1	Break-even Analysis:	
2	Monthly Units Break-even	38,644
3	Monthly Sales Break-even	$38,644
4		
5	Assumptions:	
6	Average Per-Unit Revenue	$1.00
7	Average Per-Unit Variable Cost	$0.45
8	Estimated Monthly Fixed Cost	$21,254

The Break-even table gets data from Sales Forecast and Profit and Loss; you can override formulas and type your own assumptions.

Some Built-in Problems

The break-even analysis is not our favorite analysis because:

- It is frequently mistaken for the payback period, the time it takes to recover an investment. There are variations on break-even that make some people think we have it wrong. The one we do use is the most common, the most universally accepted, but not the only one possible.
- It depends on the concept of fixed costs, a hard idea to swallow. Technically, a break-even analysis defines fixed costs as those costs that would continue even if you went broke. Instead, you may want to use your regular running fixed costs, including payroll and normal expenses. This will give you a better insight on financial realities. We call that "burn rate" these post-Internet days.
- It depends on averaging your per-unit variable cost and per-unit revenue over the whole business.

However, whether we like it or not, this table is a mainstay of financial analysis. You may choose to leave it out of your own business plan, but BUSINESS PLAN PRO would not be complete without it. And, although there are some other ways to do a Break-even Analysis, this is the most standard.

Developing Break-even Assumptions

The Break-even Analysis depends on three key assumptions:

- **Average per-unit sales price (per-unit revenue):** This is the price that you receive per unit of sales. BUSINESS PLAN PRO gets this value from your Sales Forecast, but leaves the cell unlocked so you can change it, and type in your own assumption if you choose. For non-unit based businesses (PREMIER version only), BUSINESS PLAN PRO makes the per-unit revenue $1 and puts your costs as a percent of a dollar.

  The most common question about this input relates to averaging. "How can I produce a single estimate for this when I have so many different products?" The answer to this question is that the analysis requires a single number, and if you can just fill in your Sales Forecast first, then BUSINESS PLAN PRO will calculate it for you automatically. And, if it makes you feel better, remember that you are not alone in this, the vast majority of businesses sell more than one item, and have to average for their Break-even Analysis.
- **Average per-unit variable cost:** This is the incremental cost, or variable cost, of each unit of sales. If you manufacture goods, this is the cost of materials and production per unit. If you buy goods for resale, this is what you paid, on average, for the goods you sell. If you sell a service, this is what it costs you, per dollar of revenue or unit of service delivered, to deliver that service. BUSINESS PLAN PRO gets this assumption from your Sales Forecast, but leaves the cell unlocked so you can override if you want.

  As with the previous assumption, this one also generates questions related to having to average across the whole business. Fill in your Sales Forecast and BUSINESS PLAN PRO will do this for you automatically.
- **Estimated Monthly Fixed Cost:** Technically, a Break-even Analysis defines fixed costs as costs that would continue even if you went broke. Instead, we recommend that you use your regular running fixed costs, including payroll and normal expenses (total monthly Operating Expenses). This will give you a better insight on financial realities. For this input, if averaging and estimating is difficult, just fill in your Profit and Loss table and BUSINESS PLAN PRO will calculate a working fixed cost estimate automatically—it will be a rough estimate, not necessarily to the exact detail level some financial analysts would want, but it will provide a useful input for a conservative Break-even Analysis.

Break-even and Units-Based Forecasts (PREMIER version)

If you have a units-based forecast, the automatic formula in break-even will pick up the unit assumptions from your sales forecast. Instead of setting the sales unit as 1 and picking up the percent of variable cost, it will calculate the average per-unit price by dividing total sales by total units, from your sales forecast. It also calculates the average per-unit variable cost from the sales forecast, dividing total cost of sales by total units. Figure 6-12 shows an example.

FIGURE 6-12: UNITS-BASED BREAK-EVEN CALCULATIONS

O6	=IF(PS_SalesByUnits=FALSE,1,IF(total_unit_sa
	A	O
1	Break-even Analysis:	
2	Monthly Units Break-even	3,308
3	Monthly Sales Break-even	$38,644
4		
5	Assumptions:	
6	Average Per-Unit Revenue	$11.68
7	Average Per-Unit Variable Cost	$5.26
8	Estimated Monthly Fixed Cost	$21,254

The example here shows units-based break-even that BUSINESS PLAN PRO PREMIER *calculates automatically, from the units-based sales forecast.*

TIPS

Formula Unlocked

This formula feature is unlocked in BUSINESS PLAN PRO, so you can change it. If you want to do a simple break-even analysis as part of an initial assessment, for example, you can just type in your numbers.

Business Ratios

Figure 6-13 shows the Business Ratios table. It includes dozens of standard business ratios used and expected by bankers, financial analysis, and investors. It also includes statistical indicators for thousands of specific types of business. This information is classified and categorized by Standard Industrial Classification (SIC) codes. The data involved comes from the databases of Integra Information Systems and Bizminer, two leading providers of industry-specific economic information. This information loads automatically into the final column of the table as you set your type of industry in the Plan Settings.

FIGURE 6-13: STANDARD RATIOS

P26 =IF(subtotal_short_term_liabilities<>0,total_short_term_assets/subtotal_short_term_liabilities,0)

	A	O	P	Q	T
3	Sales Growth	0.00%	153.14%	8.98%	7.60%
4					
5	Percent of Total Assets				
6	Accounts Receivable	20.40%	12.74%	10.41%	4.50%
7	Inventory	6.35%	2.84%	2.32%	3.60%
8	Other Short-term Assets	8.92%	1.58%	1.18%	35.60%
9	Total Short-term Assets	82.16%	55.85%	83.43%	43.70%
10	Long-term Assets	17.84%	44.15%	16.55%	56.30%
11	Total Assets	100.00%	100.00%	100.00%	100.00%
12					
13	Short-term Liabilities	0.00%	0.00%	0.00%	32.70%
14	Long-term Liabilities	59.79%	10.57%	7.92%	28.50%
15	Total Liabilities	59.79%	10.57%	7.92%	61.20%
16	Net Worth	40.21%	89.43%	92.08%	38.80%
17					
18	Percent of Sales				
19	Sales	100.00%	100.00%	100.00%	100.00%
20	Gross Margin	54.57%	54.81%	54.81%	60.50%
21	Selling, General & Administrative Expenses	92.46%	50.81%	48.06%	39.80%
22	Advertising Expenses	0.43%	0.17%	0.16%	3.20%
23	Profit Before Interest and Taxes	-37.00%	4.49%	7.32%	0.70%
24					
25	Main Ratios				
26	Current	3.18	9.28	17.15	0.98
27	Quick	2.94	8.90	16.67	0.65
28	Total Debt to Total Assets	85.59%	16.52%	12.79%	61.20%
29	Pre-tax Return on Net Worth	-2621.68%	22.52%	29.70%	17.00%
30	Pre-tax Return on Assets	-377.77%	18.79%	25.90%	4.30%
31					

BUSINESS PLAN PRO *includes standard industry data for thousands of types of business. Notice that in this case the formula in the edit bar serves almost as a definition for the selected ratio; Current ratio is current assets divided by current liabilities.*

Main Ratios

- **Current.** Measures company's ability to meet financial obligations. Expressed as the number of times current assets exceed current liabilities. A high ratio indicates that a company can pay its creditors. A number less than one indicates potential cash flow problems.
- **Quick.** This ratio is very similar to the Acid Test (see below), and measures a company's ability to meet its current obligations using its most liquid assets. It shows Total Current Assets excluding Inventory divided by Total Current Liabilities.
- **Total Debt to Total Assets.** Percentage of Total Assets financed with debt.
- **Pre-Tax Return on Net Worth.** Indicates shareholders' earnings before taxes for each dollar invested. This ratio will not be applicable if the subject company's net worth for the period being analyzed has a negative value.
- **Pre-Tax Return on Assets.** Indicates profit as a percentage of Total Assets before taxes. Measures a company's ability to manage and allocate resources.

Additional Ratios

- **Net Profit Margin.** This ratio is calculated by dividing Sales into the Net Profit, expressed as a percentage.
- **Return on Equity.** This ratio is calculated by dividing Net Profit by Net Worth, expressed as a percentage.

Activity Ratios

- **Accounts Receivable Turnover.** The AR (accounts receivable) Turnover ratio is calculated by dividing Sales on Credit by Accounts Receivable. This is a measure of how well your business collects its debts.
- **Collection Days.** The Collection Days ratio is calculated by multiplying Accounts Receivable by 360, which is then divided by annual Sales on Credit. Generally, 30 days is exceptionally good, 60 days is bothersome, and 90 days or more is a real problem.
- **Inventory Turnover.** The Inventory Turnover ratio is calculated by dividing the Cost of Sales by the average Inventory balance.
- **Accounts Payable Turnover.** The Accounts Payable Turnover ratio is a measure of how quickly the business pays its bills. It divides the total new Accounts Payable for the year by the average Accounts Payable balance.
- **Total Asset Turnover.** This ratio is calculated by dividing Sales by Total Assets.

Debt Ratios

- **Debt to Net Worth.** This ratio is calculated by dividing Total Liabilities by total Net Worth.
- **Current Liab. to Liab.** This ratio is calculated by dividing Current Liabilities by Total Liabilities.

Liquidity Ratios

- **Net Working Capital.** The Net Working Capital ratio is calculated by subtracting Current Liabilities from Current Assets. This is another measure of cash position.
- **Interest Coverage.** The Interest Coverage ratio is calculated by dividing Profits Before Interest and Taxes by total Interest Expense.

Additional Ratios

- **Assets to Sales.** The Assets to Sales ratio is calculated by dividing Assets by Sales.
- **Current Debt/Total Assets.** The Current Debt/Total Assets ratio is calculated by dividing Total Assets by Current Liabilities.
- **Acid Test.** The Acid Test ratio is calculated by dividing Current Liabilities by Current Assets (excluding Inventory and Accounts Receivable).
- **Sales/Net Worth.** The Sales/Net Worth ratio is calculated by dividing Total Sales by Net Worth.
- **Dividend Payout.** The Dividends Payout ratio is calculated by dividing Dividends by Net Profit.

Business Vitality Profiles

- **Sales per Employee.** Sales divided by total employees.
- **Survival Rate.**

Both of these ratios come from BizMiner, a provider of industry analysis. For all of the BizMiner information included in Business Plan Pro, we use the main business category information (four-digit SIC code) to estimate all the subcategories (eight digit SIC code) of the same type of business.

TIPS

Ratios

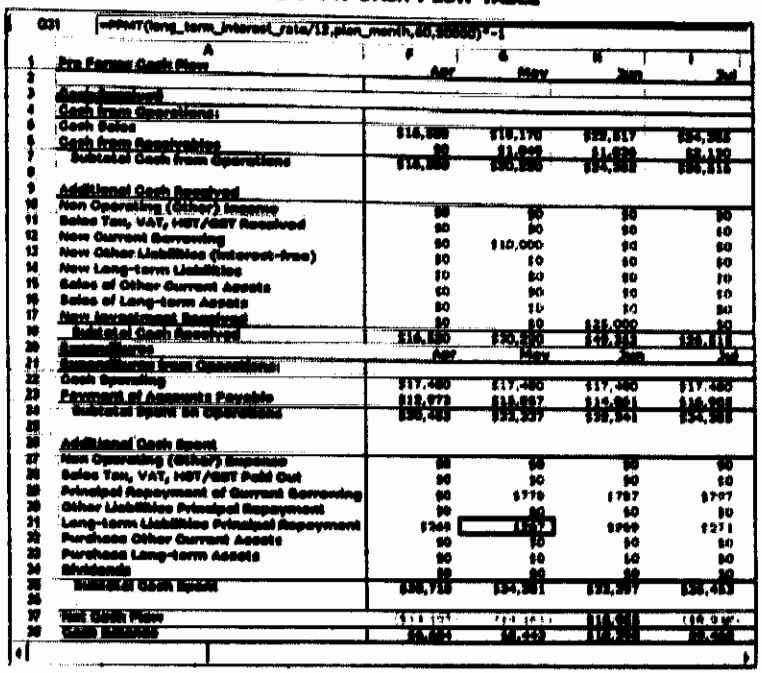
In the real world, financial profile information involves some compromise. Very few organizations fit any one profile exactly. Variations, such as doing several types of business under one roof, are quite common. If you can't find a classification that fits your business exactly, use the closest one and explain in your text how and why your business is different from the standard.

Remember, if you don't want to include the ratios, go to the Plan Outline screen and delete that table. It will still be in your plan, but not in the printed output. You can also use the Format > Row command to hide any row, so that the specific row won't show in the print.

Cash Flow

Cash Flow is simply not intuitive. BUSINESS PLAN PRO is built around a powerful cash flow model that deserves detailed explanation. To understand this logic, we can look at the Cash Flow table in detail, as shown in Figure 6-14. You can see how this process of adjusting income and balance works out.

FIGURE 6-14: CASH FLOW TABLE



G31	=PMT(long_term_interest_rate/12,plan_month,60,30000)*-1			
	A	F	G	H	I
1	Pro Forma Cash Flow	Apr	May	Jun	Jul
2					
3	Cash Received				
4	Cash from Operations:				
5	Cash Sales	$16,000	$18,170	$22,817	$24,382
6	Cash from Receivables	$0	$1,000	$1,020	$2,120
7	Subtotal Cash from Operations	$16,000	$20,200	$24,382	$26,518
8					
9	Additional Cash Received				
10	Non Operating (Other) Income	$0	$0	$0	$0
11	Sales Tax, VAT, HST/GST Received	$0	$0	$0	$0
12	New Current Borrowing	$0	$10,000	$0	$0
13	New Other Liabilities (interest-free)	$0	$0	$0	$0
14	New Long-term Liabilities	$0	$0	$0	$0
15	Sales of Other Current Assets	$0	$0	$0	$0
16	Sales of Long-term Assets	$0	$0	$0	$0
17	New Investment Received	$0	$0	$25,000	$0
18	Subtotal Cash Received	$16,000	$30,200	$49,382	$26,518
20	Expenditures	Apr	May	Jun	Jul
21	Expenditures from Operations:				
22	Cash Spending	$17,480	$17,480	$17,480	$17,480
23	Payment of Accounts Payable	$12,973	$13,857	$15,861	$16,058
24	Subtotal Spent on Operations	$30,453	$32,337	$33,341	$34,538
25					
26	Additional Cash Spent				
27	Non Operating (Other) Expense	$0	$0	$0	$0
28	Sales Tax, VAT, HST/GST Paid Out	$0	$0	$0	$0
29	Principal Repayment of Current Borrowing	$0	$779	$797	$797
30	Other Liabilities Principal Repayment	$0	$0	$0	$0
31	Long-term Liabilities Principal Repayment	$268	$277	$969	$271
32	Purchase Other Current Assets	$0	$0	$0	$0
33	Purchase Long-term Assets	$0	$0	$0	$0
34	Dividends	$0	$0	$0	$0
35	Subtotal Cash Spent	$30,721	$34,391	$35,107	$35,483
36					
37	Net Cash Flow	[illegible]	[illegible]	$14,275	($8,965)
38	Cash Balance	$5,483	$8,242	$22,517	$13,552

The Cash Flow table focuses on money flowing in and out of the business, regardless of profits or losses.

Cash Flow Logic

The logic of the cash flow follows its format. It starts with items that generate cash, first from regular operations, then from balance-related items such as new loans and new investment. Then it plans items that cost cash, including normal payments in cash and payments of accounts payable, loan repayment, and investing in new assets. Cash in less cash out equals cash flow, and last month's balance plus this month's cash flow equals this month's ending balance.

The math is simple, and the logic is simple, but the concepts aren't. Cash Flow is not intuitive. We strongly recommend reading Hurdle: the Book on Business Planning (included with BUSINESS PLAN PRO) Chapters 13-16, a summary of basic business numbers, and the critical importance of cash and cash flow.

TIPS

More on Cash Flow in Hurdle: The Book on Business Planning

Make sure you read the *About Business Numbers* and *Cash is King* sections of your Hurdle book, which explains this in greater detail. Use the Resources button on the toolbar > Books > Hurdle to read the book in PDF format.

Profits vs. Cash

Several of the most important elements of the BUSINESS PLAN PRO cash model are explained in greater detail in the *Cash is King* chapter of the Hurdle book. This chapter provides a few key points that are important to understand:

- "Cash" in a business plan isn't bills and coins; it's checking account balance. It includes liquid securities. It is the most vital resource in your business.
- Changes in balance items can have a huge impact on your cash flow. Companies do go broke while making profits. If all your cash is in inventory and accounts receivable, for example, you can be broke and profitable at the same time.

Critical Factors

Here are concrete steps involved in developing your cash flow projection. First, finish up initial drafts of Sales Forecast, Personnel Plan, and Profit and Loss—you may well change those again later, but you need to have good initial estimates before going to cash. Then continue with the following steps:

1. Estimate Cash Spending. This happens in the row named "Cash Spending." Most businesses pay for relatively few things in cash, putting most of their purchases into Accounts Payable (money owed and waiting to be paid) where they wait for a month or so before payment. As you reach the Cash Flow table, you first estimate payments in cash in the row named "Cash Spending." The default formula assumes payroll is always paid immediately, instead of waiting in Accounts Payable. That formula is:

=payroll_expenses

You can use Formula Backstep to find where Payroll Expenses are, or simply go to your General Assumptions table to see that row in that table.

?

To Learn More About...	Search the Help Index for...
Find source of table formula components	Formula Backstep

Many companies will pay additional amounts in cash beyond payroll, but that's up to you. You can make an educated guess or, if you have business history, look at past results. For example, if you suspect you'll pay payroll plus an additional $1,000 per month as cash spending, then the formula for that might be:

=payroll_expenses+1000

2. Review payments of Accounts Payable. The line below "Cash Spending" calculates your payments of Accounts Payable based on the estimated balance of Accounts Payable (in the Balance Sheet) plus the calculated "New Accounts Payable" (in your General Assumptions table, calculated automatically from assumptions elsewhere.

TIPS

Important: Payments of Accounts Payable Should Never be Negative

If Payments of Accounts Payable is negative, then either your estimated Cash Spending or your estimated Accounts Payable balance is too high. You must revise one or both of these assumptions to correct the negative payments assumption, which is illogical. You can use the Edit > Formula Reset command to correct erroneous assumptions, restoring the original formulas.

3. Review Cash Sales. BUSINESS PLAN PRO calculates the row named "Cash Sales" by subtracting "Sales on Credit" from Sales. Sales on Credit is one of the information items in your General Assumptions table, the result of multiplying sales times the sales on credit percentage in that same table. Cash sales go straight to your cash flow.
4. If your plan settings include sales on credit, review Cash from Receivables. Most businesses that sell to other businesses sell on credit, meaning that they deliver goods and services to their business customers along with an invoice to be paid. Business customers are supposed to pay those invoices in 30 days (in most cases), and some do, but many pay in 45 days, 60 days, or more. The amounts of money waiting to be paid by customers are called Accounts Receivable, or, in this case, "Receivables." The average wait time is called collection days. These are important concepts, because your sales have been made, profits are calculated for Profit and Loss, but the money is not in the bank. BUSINESS PLAN PRO calculates Cash from Receivables based on your Sales on Credit and your estimated balance of Accounts Receivable in the Balance Sheet.

TIPS

Important: Cash From Receivables Should Never be Negative

If Cash from Receivables is negative, then your estimated Accounts Receivable balance, in the Balance Sheet, is too high for the amount of sales on credit. Go back to the Balance Sheet and reduce the estimated Receivables. A negative balance is illogical. You can use the Edit > Formula Reset command to correct erroneous assumptions, restoring the original formulas.

5. If your plan settings include inventory, review Inventory. Although Inventory doesn't show up directly in Cash Flow, unrealistic inventory estimates affect cash flow through the payables estimates. Check the Inventory balance in the Balance Sheet, to make sure that it's always a positive number. Then check the purchase of new Inventory in the General Assumptions, which BUSINESS PLAN PRO calculates using your direct cost of goods sold and your estimated inventory balance. It should never be a negative number.

TIPS

Important: Inventory Purchase Should Never be Negative

If inventory purchase is negative, your estimated inventory balance is too low. You must revise this assumption to correct the negative purchase, which is illogical. You can use the Edit > Formula Reset command to correct erroneous assumptions, restoring the original formulas.

6. Is your cash balance negative? Then you have to generate more cash by borrowing money or bringing in new investment, or even selling assets—in the upper middle section of the Cash Flow. If you are a start-up company, and cash flow is negative, you can also revise your Start-up table to estimate higher initial loans or investment, to raise your starting cash.

   In the example shown in Figure 6-14, the pizza restaurant needed to borrow $10,000 in May and add $25,000 in new investment in June to keep its checking account balance (which is what we call Cash) above zero. As the plan was developed, initial investment didn't fully cover cash needs, so the plan had to stipulate new loans and new investment to make the cash plan viable. They might also have increased the amount of initial investment, or borrowed more money initially.

Cash vs. Profits

Although the following rules don't make sense in every case, with the way the numbers work, accept these rules:

- Every dollar of increase in your accounts receivable means one dollar less of cash. If you don't believe that, pull a dollar out of your wallet and loan it to a friend.
- Every dollar of increase in accounts payable means an additional dollar of cash. If you don't believe that, pay a dollar less of your bills than you otherwise would have. You'll have an extra dollar each in payables, and in cash.
- Every dollar of increase in inventory means a dollar less of cash. Sure, that can be cancelled by a dollar of increase in accounts payable, but you get the point.

How can this be? Simple logic. The cash flow table starts with net income. The income statement assumes that you paid for all your costs and expenses, and you received all of your sales, because it ignores balance sheet items such as accounts receivable or accounts payable. Therefore, the changes in balance items mean changes in cash.

Timing Distinguishes Cash Flow vs. Start-up

Most of the items in the Cash Flow table, including loans and assets, are the same concepts as in start-up assets and start-up financing in the Start-up table. The difference is timing. If the new loan or asset purchase happens during or after the first month of the plan, it belongs in the Cash Flow. If it happens before the first month, it belongs in the Start-up table.

Handling of Loans, Interest, and Repayment

BUSINESS PLAN PRO handles loans, interest, and repayment following standard accounting convention.

- New loans go into the Cash Flow table in the upper section as sources of cash.
- Interest, which is an expense deductible against income, goes into the Profit and Loss statement. BUSINESS PLAN PRO calculates interest automatically.
- Principal repayments go into the Cash Flow table in the lower section, as uses of cash.

Some people are confused by the concept of separating the payment into interest and principal. A common example, at least in the United States, is if you have a mortgage to pay.

Most lending institutions clearly separate payments into interest and principal components. Even if you write a single check each month to repay the mortgage loan, the payment will be divided into interest and principal.

TIPS

Repayment Schedule

If you don't have documentation on repayments, your local bank, a standard financial worksheet, or even a financial calculator can give you the detailed repayment schedule to use with BUSINESS PLAN PRO.

If you understand how to program spreadsheet formulas, you can also use the built-in Principal Payments function (PPMT). An example is provided in the Expanded Principal Payments Formula section.

Expanded Principal Payments Formula

BUSINESS PLAN PRO also has built-in financial functions you can use to calculate loan payments. Here again, the normal expectation is that because this is planning, not accounting, you don't need to do that in this much detail. However, you can use this function if you want, and it can make sense when the numbers are very large.

This formula uses the Principal Payments (PPMT) function, which calculates monthly principal payments for a loan. The PPMT function syntax specifies:

=PPMT(interest rate, payment #, total payments, loan amount)

Figure 6-15 shows this function in use for the calculation of principal repayments of long-term debt. In that illustration, the edit bar shows the PPMT function as applied to cell G31, the selected cell. That formula is:

=PPMT(long_term_interest_rate/12,Plan_Month,60,20000)*-1

- Long_term_interest_rate/12 sets the interest rate. The range "long_term_interest_rate" contains the annual interest rate, and the formula divides it by 12. The source of this information is in your General Assumptions table.
- Plan Month establishes that this is the second payment of 60 total payments.
- 60 is the number of payments. This is specific information for your loan, your business situation. In this example, the loan involved is for five-year terms.
- 20000 is the amount of the loan principal. You can see that number started with the Start-up table.
- *-1 is because you need to make the result a positive number. It is normally negative because it is a cash flow function indicating money out, not in; but in the cash flow table, a payment shows up as a positive number.

TIPS

The Sources and Uses of Cash Statement

The BUSINESS PLAN PRO Cash Flow table includes all the information you need to produce what accountants call the "Sources and Uses of Cash" statement. It doesn't do that statement, however, because it doesn't know ahead of time which items are sources, and which are uses.

Accounts Payable, for example, is a source of cash if the balance increases over the year, and a use of cash if the balance decreases.

Cash-Sensitive Assumptions

The cash projections of a normal business depend especially on three key factors:

- Accounts Receivable, which you estimate directly in your Balance Sheet, and depends on that estimate plus sales on credit assumptions. If you don't set your plan for sales on credit, then Accounts Receivable are set to 0 and don't show. If you do have sales on credit, Accounts Receivable is in your Balance Sheet with a default estimation formula you can change if you need to. If Cash from Receivables turns negative, you must revise the balance estimate.
- Inventory, which you estimate directly in your Balance Sheet. If you don't have your plan set for inventory, in the plan settings, then BUSINESS PLAN PRO hides the inventory and

sets the balance to 0. If you do have inventory, then Inventory is in your Balance Sheet with a default estimation formula you can change if you need to. If new inventory purchase (in General Assumptions) turns negative, you must revise the inventory balance estimate.
- Payables, which you estimate directly in your Balance Sheet. If Payments of Payables in Cash Flow is negative, you must revise the Payables estimate in the Balance Sheet.

Although your cash flow normally includes many other rows and assumptions, these three lines in the Balance Sheet will drive your projected cash flow up or down more than most other elements. Recognizing how these balances influence the cash flow, the BUSINESS PLAN PRO cash methodology uses the balance predictors to calculate the cash flow as a result of the balances.

TIPS

Cash Balance as Summary Instead of Detail

Because a business plan needs to summarize instead of exploding into detail, BUSINESS PLAN PRO ignores the subtle differences between cash, checking, and liquid securities. However, you can show interest income in the Extraordinary Items row at the bottom of the Profit and Loss.

General Assumptions

The General Assumptions table, Figure 6-15, keeps track of important assumptions that affect the rest of your financials. These assumptions will affect your profit and loss, balance sheet, personnel costs, cash flow, business ratios, and benchmarks chart. You can use this table to revise your assumptions whenever you have to.

This table also includes a row labeled "Other," which you can use for any other assumption you want to add to your own business plan. You can select that row and use the Insert Row command in the Edit menu to add additional rows, for additional assumptions. For example, some business plans will include monthly or annual growth rates for sales and expenses, such as the "power variables" explained in detail in Chapter 10.

This table also includes a set of calculated totals included, not to print out as part of your plan document, but rather, for your information because they are used in other formulas in other tables. Payroll expense, for example, is included in the default formula for Cash Spending in your Cash Flow table. None of these calculated totals will print automatically, as part of the General Assumptions table, when you produce the plan document. You can print them directly from the table printing mode if you want.

FIGURE 6-15: GENERAL ASSUMPTIONS

M5 =L5

	A	L	M	N	O	P	Q
1	General Assumptions						
2		Oct	Nov	Dec	2000	2001	2002
3	Plan Month	10	11	12	1	2	3
4	Current Interest Rate	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
5	Long-term Interest Rate	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
6	Tax Rate	30.00%	30.00%	30.00%	30.00%	5.00%	5.00%
7	Sales on Credit %	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
8	Other	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	Calculated Totals						
10	Payroll Expense	$16,480	$16,480	$16,480	$198,912	$241,880	$238,164
11	Sales on Credit	$3,617	$3,988	$3,998	$27,948	$70,730	$77,061
12	New Accounts Payable	$22,784	$24,487	$4,639	$181,153	$309,788	$480,490
13	Inventory Purchase	$18,115	$19,799	$0	$127,016	$281,010	$247,176

The General Assumptions table sets assumptions that affect several other tables.

Current vs. Long-term Interest Rates

Standard accounting makes an arbitrary division between current (also called short-term) assets and liabilities and long-term assets and liabilities. Long-term assets are also called capital assets,

fixed assets, and plant and equipment. The idea behind this division is establishing a difference on how long such assets and liabilities last. The division between long-term and current liabilities might be three, five, or ten years. Each company makes its own decision, usually in agreement with financial management and accountants. You can make that decision yourself or ask an accountant. If you are just starting a new business, and have no idea, then make the division five years: assets or liabilities that last longer than five years are long term.

TIP

An Unprotected Formula?

Figure 6-15 shows the spreadsheet formula for Long-term Interest Rate programming of the formula in cell M5, which is showing in the edit bar. This is a good example of how BUSINESS PLAN PRO will sometimes give you program formulas that are not protected, and can be changed. It is a green cell, unlocked, and changeable. Our formula simplifies data entry for you by making all the cells refer to the cell to the left, so when you change the assumption for the starting month, you change all the others. This can be modified by your own programming of some other formula, or by simply typing in data.

You don't have to include the table in the printed document. The financials need these numbers, but your readers might not. Although interest rate and tax rate assumptions are standard, not every reader will relate to them in detail, and Plan Month is obscure. Some choose to unlink this table so they don't have to explain it. You can also simply hide a row so it doesn't show in the printed document.

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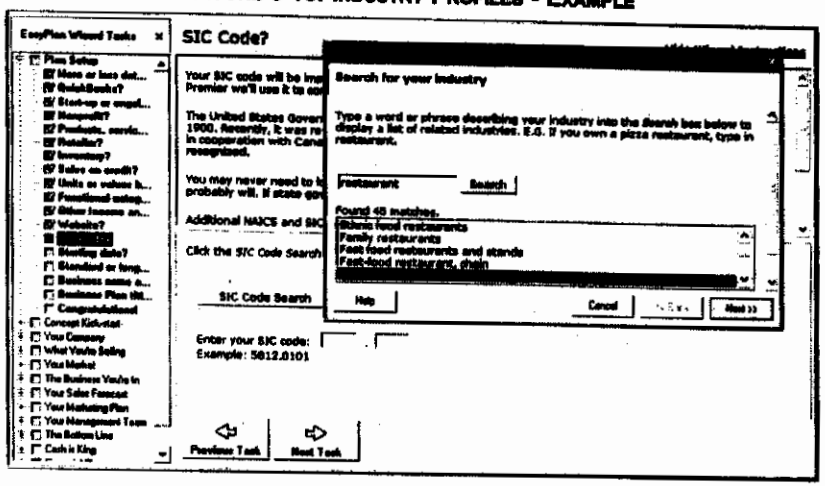
To Learn More About...	Search the Help Index for...
Removing a table from a topic	Unlink tables
Masking a table row from view	Hide rows

Industry Profile

Here's what you do to include your industry's financial profile in your business plan:

- Go to the Plan Settings in the EasyPlan Wizard in BUSINESS PLAN PRO and click on SIC code. Use the keyword search as shown in Figure 6-16.

FIGURE 6-16: INDUSTRY PROFILES - EXAMPLE

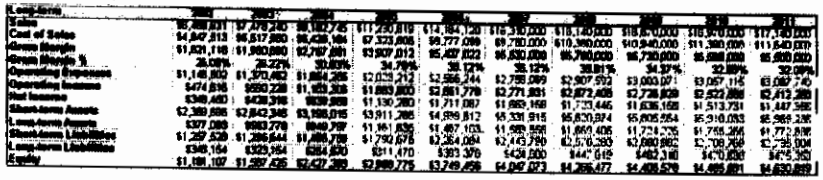


Your industry profile starts with a search for the right industry code.

Long-term

The Long-term table brings up some potential confusion about the time frames in business planning, according to BUSINESS PLAN PRO. We do recommend planning for the longer term. However, we don't recommend projecting detailed financials—separate Sales Forecast, Personnel Plan, Cash Flow, Balance Sheets—beyond three years. However, BUSINESS PLAN PRO does in fact allow for these detailed financials through five years, because users have asked for that. Furthermore, it also offers a macro-view plan for as many as 10 years, in the Long-term table shown in Figure 6-17.

FIGURE 6-17: LONG-TERM TABLE



Long-term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Sales	$6,488,831	$7,476,240	$8,182,745	$11,250,819	$14,184,120	$16,310,000	$18,140,000	$18,870,000	$18,970,000	$17,180,000
Cost of Sales	$4,847,813	$6,517,880	$6,438,164	$7,323,806	$9,277,099	$9,780,000	$10,380,000	$10,940,000	$11,380,000	$11,540,000
Gross Margin	$1,621,118	$1,980,880	$2,787,881	$3,907,012	$5,407,022	$6,530,000	$6,760,000	$6,730,000	$5,590,000	$5,640,000
Gross Margin %	25.00%	26.22%	30.80%	34.79%	38.12%	38.12%	38.81%	34.37%	32.89%	32.89%
Operating Expenses	$1,146,800	$1,370,462	$1,864,285	$2,038,212	$2,566,244	$2,758,089	$2,907,592	$3,000,071	$3,057,115	$3,097,740
Operating Income	$474,318	$550,228	$1,123,308	$1,869,800	$2,861,778	$3,771,891	$3,872,408	$3,728,929	$2,522,886	$2,412,260
Net Income	$348,460	$438,318	$839,969	$1,330,280	$1,711,067	$1,869,168	$1,723,446	$1,636,168	$1,513,731	$1,447,582
Short-term Assets	$2,389,886	$2,842,348	$3,198,015	$3,911,285	$4,896,812	$5,331,915	$5,830,874	$5,805,554	$5,910,033	$5,968,235
Long-term Assets	$377,080	$983,778	$849,797	$1,161,836	$1,487,103	$1,589,568	$1,660,406	$1,724,205	$1,765,266	$1,772,898
Short-term Liabilities	$1,257,520	$1,286,644	$1,486,798	$1,792,675	$2,264,084	$2,443,780	$2,570,285	$2,680,862	$2,708,268	$2,736,004
Long-term Liabilities	$348,164	$329,954	$284,890	$311,470	$393,376	$424,000	$446,619	$462,318	$470,000	$475,350
Equity	$1,161,107	$1,207,435	$2,427,289	$3,989,775	$3,749,456	$4,047,073	$4,266,477	$4,405,579	$4,495,891	$4,630,819

With the Long-term plan you can extend your financial assumptions out to 10 years.

The EasyPlan Wizard activates this table only if you choose certain expert options. If you choose to use it, then you can set assumptions for main financial indicators—you can see them in the illustration—for up to 10 years.

- The black cells in the Long-term table will automatically pick up information for the first five years, if you have that in your plan. Years 6-10 are green (unlocked) so you can add your data.

TIPS

Do You Really Need This?

The fact that a table like this is included with BUSINESS PLAN PRO doesn't mean that you need it. It's available for the special cases; most business plans don't need to go into this much detail for 10 years.

Yes, you should plan for the long term, but the long-term planning is more conceptual and less detailed.

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Market Analysis

In BUSINESS PLAN PRO Market Analysis looks at the total potential market, usually divided into segments. Normally this is total potential market, not total actual customers. This is a market forecast and not a sales forecast, so it should focus not on customers you already sell to, and not on the portion of the total market you expect to sell to, but rather on the whole market.

For example, in the sample market analysis shown in Figure 6-18, the total market is 67,000 possible customers in 2003. The sample comes from a pizza restaurant, and the total potential market in this case is the total population of a local community. As you can see in the illustration, that includes several thousand college students, single individuals, and families. Normally the accompanying text in the plan has to explain the segmentation scheme, why and how the potential market groups are divided.

FIGURE 6-18: MARKET ANALYSIS

D3 =ROUND(C3*(1+$B3),0)

	A	B	C	D	E	F	G	H
1	Market Analysis							
2	Potential Customers	Growth	2003	2004	2005	2006	2007	CAGR
3	University students	2.00%	17,000	17,340	17,687	18,041	18,402	2.00%
4	Single adults	5.00%	22,000	23,100	24,255	25,468	26,741	5.00%
5	Families	3.50%	28,000	28,980	29,994	31,044	32,131	3.50%
6	Total	[illegible]	67,000	[illegible]	71,936	[illegible]	[illegible]	[illegible]

The Market Analysis table estimates potential customers, not actual customers.

TIPS

No Fewer Than Two Rows

In the Market Forecast table, you can't have fewer than two rows. The logic involves SUM formulas that need to have a top row and a bottom row.

If you need to delete a row, delete the middle row of the three starting rows.

Potential Customers, not Actual Customers

The Market Analysis normally shows potential customers, not actual customers. It indicates the size of the whole market, not your share of it. In the example here, the pizza restaurant's potential market is the whole adult population, including students, singles, and families. It isn't just the subset of the population that goes to this restaurant, or that likes pizza. It isn't the actual customers, or the served market, it is the potential market.

Growth Rates

You can change the market analysis if you want, because formulas are not protected, but normally it works by setting a starting population for the present year (the first year of the plan) in the third column, and a growth rate in the second column. The growth rate automatically applies to the second through the fifth year, using automatic formulas, unless you type over those formulas and replace them with either your own estimates, or a different formula. Type the starting market number as a number, and the growth rate as a percent value.

Compound Average Growth Rate (CAGR)

The CAGR is a standard formula which counts only the first and final values, without regard to the intervening values. The Market Analysis table uses the compound average growth rate (CAGR) formulas to determine the average growth rate. The formula is:

CAGR = (last/first)^(1/years)-1

In the example in Figure 6-18, there are four years of growth. In this forecast the growth years are 2004, 2005, 2006, and 2007. So in cell H4 for example, the CAGR portion of the formula in that cell is =(G4/C4)^(1/4)-1 .

TIPS

Market Research and Market Forecasting in Hurdle: The Book on Business Planning

Make sure you read the *Gathering Information and Forecasting* sections of your Hurdle book, which explain this in greater detail. Use the Tools > Resources > Books > Hurdle link to read the book in PDF format.

Inserting and Deleting Rows

Rows can be inserted within the middle section of the Market Analysis table. Use the Edit > Insert Row option. You can't delete the top or the bottom rows of this table because of the underlying SUM formulas. You can, however, transfer data from any middle row to the top or bottom, then delete that middle row.

?

To Learn More About...	Search the Help Index for...
Adding rows to a table	Insert rows
Removing rows from a table	Delete rows

Unprotected Formulas

Figure 6-19 shows the formula for column D. It calculates this second-year value using simple math from the first-year value and the growth rate assumption in column B. In this table, the unprotected formula calculates an estimation for the second through the fifth year if you type in values for the first year and the growth rate.

This is an excellent example of an unprotected formula. It is there for your convenience, but not required. If you type data in and assumptions on your own, you can overwrite the formulas to create a different growth pattern.

TIPS

Watch for Unprotected Formulas

The Market Analysis table is full of formulas that aren't protected, which means that you can use them if you want, but you don't have to use them. Instead of accepting a steady growth rate, you can just type year-by-year assumptions.

In Figure 6-19, the ro labeled "Straight" is built using the pre-programmed growth formulas. Each column represents 78 percent growth from the previous year. In the ro labeled "Natural", in contrast, although the growth to 2007 is the same, none of the intervening columns follows the trai ht ro . All of the values were typed into the cells as estimates, changing the formula.

FIGURE 6-19: STRAIGHT LINE VS. ESTIMATED MARKET GROWTH

D3 =ROUND(C3*(1+$B$3),0)

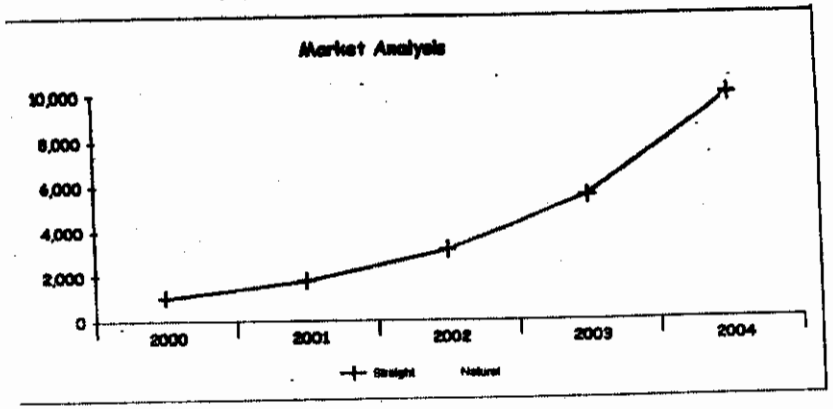
	A	B	C	D	E	F	G	H
1	Market Analysis							
2	Potential Customers	Growth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	CAGR
3	Straight	78%	1,000	1,780	3,162	5,623	10,000	[illegible]
4	Natural	78%	1,000	5,400	7,700	9,300	10,000	[illegible]
5	Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Both examples have the same growth rate, but the numbers are very different.

In this case, it is important to treat the growth rate in column B, cell B4, as we did for the example. By making its growth rate equal to the growth in the last column, we avoid a logical contradiction. The overall growth rate is what's shown in column H, the CAGR column.

In Figure 6-20 you can see how different the two forecasts are. The trai ht forecast line curves up with a steady increase. The at ral forecast line is growing faster at first and then slower later on. Notice that both forecasts get to the same endpoint, and they both have the same growth rate for the full period.

FIGURE 6-20: THE MARKET CONTRAST



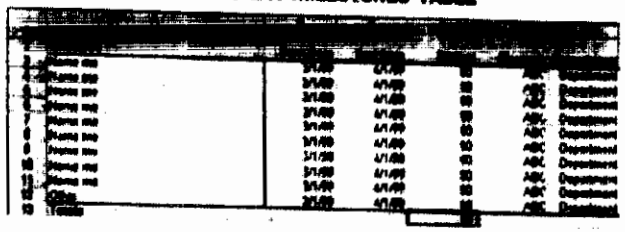
Both lines have the same 5-year growth rate, but very different numbers.

Milestones

The Milestones table is one of the most important in your business plan. It sets the plan into practical, concrete terms, with real budgets, deadlines, and management responsibilities. Please be sure to read the Planning for Implementation chapter of the Hurdle book. That chapter focuses on the Milestones table and plan-vs.-actual management as keys to making a business plan real.

The table provides you with a list of activities. Each activity is assigned a starting date, ending date, manager responsible, department responsible, and a budget. As you build your business and implement the plan, you can use the Milestones list to guide your management. Figure 6-21 shows the opening screen of the Milestones table, before entry.

FIGURE 6-21: MILESTONES TABLE



Use the Edit > Row Label to give each milestone a unique name. Including starting and ending dates lets you track whether your goals were met during the set time frame.

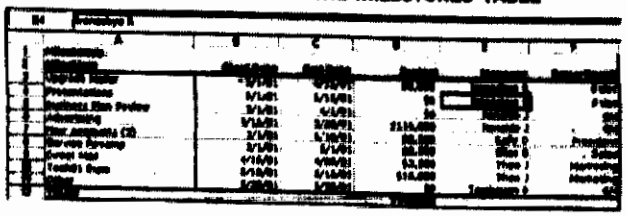
Sorting on the Milestones

The Milestones table is the only table that sorts items. You can go to the Edit menu while on the Milestones, and the Sort command is enabled. You can sort the Milestones on Start Date, End Date, Budget, Manager, or Department. This sorting facility is intended to facilitate real management.

For example, before a meeting with all managers, sort the Milestones table by date to get all the relevant milestones for that time period. Are you on budget? On time? Do you need to make any corrections?

Sort the Milestones on Manager to highlight the activities of each manager. Figure 6-22 shows the sorting facility.

FIGURE 6-22: SORTING THE MILESTONES TABLE



The Milestones table can be sorted by any column, allowing you to analyze current performance. This illustration was sorted by Manager.

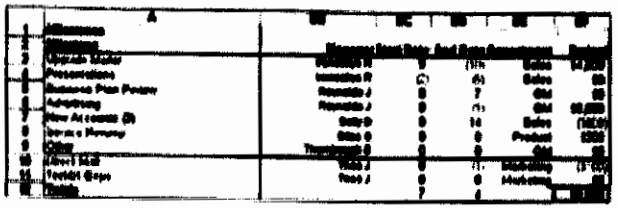
Additional Information - Milestones (PREMIER version)

Plan-vs.-Actual

The Milestones table is probably the most important of several tables in the PREMIER version that encourage plan-vs.-actual management. One of the most important elements of managing a plan is following up on results, keeping track of your schedule and budget and to see where adjustments, if any, need to be made to stay within your plan.

Before a meeting with a manager, sort the Milestones table by manager to get all the relevant milestones together. Click on Actual and Variance tabs to see how that manager's milestones tasks are being met. Figure 6-23 shows an example.

FIGURE 6-23: MILESTONES PLAN VS. ACTUAL VARIANCE



In Variance view, the Milestones table tracks implementation, displaying the difference between what was planned and what was actually accomplished.

Past Performance

The EasyPlan Wizard sets each business plan as either a start-up or an ongoing company. Ongoing companies have Past Performance instead of Start-up. Either one of these tables will establish the starting balances in column B of the Balance Sheet table.

The Past Performance table is almost entirely data entry, with no important calculations. BUSINESS PLAN PRO uses it for just a few objectives:

- To set starting balances for ongoing companies. The final column of the Past Performance table links directly into column B of the Balance Sheet.
- For values used in the Benchmarks chart (PREMIER version) for ongoing companies. For ongoing companies, the Benchmarks chart compares six years of business numbers, three from the past and three in the future.
- Collection Days and Inventory Turnover Ratios offer insight into your business' critical cash flow. We use estimators based on these ratios to project future cash. The Past Performance table gives you actual results on these indicators, from your past results. That can help you project the future. Figure 6-24 shows a sample.

FIGURE 6-24: PAST PERFORMANCE TABLE

	A	B	C	D
1	Past Performance			
2		2000	2001	2002
3	Sales	$3,773,889	$4,661,902	$5,301,059
4	Gross Margin	$1,189,495	$1,269,261	$1,127,888
5	Gross Margin %	31.52%	27.23%	21.27%
6	Operating Expenses	$752,083	$902,800	$1,052,917
7	Collection Period (days)	46	36	41
8	Inventory Turnover	6.88	7.97	7.41
9				
10	Balance Sheet			
11	Current Assets	2000	2001	2002
12	Cash	$23,341	$44,090	$66,431
13	Accounts Receivable	$302,738	$273,684	$395,107
14	Inventory	$375,806	$475,689	$661,012
15	Other Current Assets	$19,904	$18,966	$25,091
16	Total Current Assets	$721,588	$812,429	$1,128,642
17	Long-term Assets			
18	Capital Assets	$255,098	$289,887	$351,435
19	Accumulated Depreciation	$35,988	$42,890	$51,861
20	Total Long-term Assets	$219,110	$246,997	$299,774
21	Total Assets	$940,698	$1,059,426	$1,428,416
22				
23	Capital and Liabilities			
24		2000	2001	2002
25	Accounts Payable	$189,566	$191,954	$223,897
26	Current Borrowing	$120,000	$11,000	$90,000
27	Other Current Liabilities	$9,870	$69,659	$15,000
28	Subtotal Current Liabilities	$319,436	$272,513	$328,897
29	Subtotal Current Liabilities	$319,436	$272,513	$328,897
30				
31	Long-term Liabilities	$0	$0	$284,862
32	Total Liabilities	$319,436	$272,513	$613,759
33	Paid-in Capital	$400,000	$548,908	$600,000
34	Retained Earnings	$168,116	$221,262	$238,885
35	Earnings	$53,146	$16,743	$74,652
36	Total Capital	$621,262	$786,913	$913,537
37	Total Capital and Liabilities	$940,698	$1,059,426	$1,527,296
38				
39	Other Inputs	2000	2001	2002
40	Payment Days	21	16	16
41	Sales on Credit	$2,302,072	$2,983,617	$2,987,128
42	Receivables Turnover	7.60	10.90	[illegible]

The Past Performance table calculates Gross Margin and gives you an estimation of Collection Days and Inventory Turnover.

Collection Days

The Collection Days indicator in Past Performance is unlocked for the first year because it doesn't have a previous year ending balance, so the formula is slightly off. If you have access to these numbers, you can type the correct number into the table and replace the formula. If not, then the formula is still a good estimate.

Inventory Turnover

The Inventory Turnover indicator is unlocked for all three years because the calculation is based on Cost of Sales, instead of Direct Cost of Sales. This makes it slightly incorrect, although still valuable for estimation. If you have access to the correct number from past financials, type it in.

Additional Information - Past Performance

Using Your Own Statements Instead

You may have many good reasons to include your own financial statements in a business plan, instead of using the BUSINESS PLAN PRO Past Performance table. You can include your financials as an appendix to your business plan. If you do that, you may choose not to print the BUSINESS PLAN PRO Past Performance table as part of your plan.

The Past Performance table is linked to the Company Summary topic. If you don't want this table to print as part of your plan, you can "unlink" it from its topic. The table will still exist, but it won't print.

You should at least fill in the final column of the Past Performance table because this provides your Balance Sheet starting balances. These items include Cash, Accounts Receivable, Inventory, Other Current Assets, Long-term Assets, Accumulated Depreciation, Accounts Payable, Current Notes, Other Current Liabilities, Long-term Liabilities, Paid-in Capital, Retained Earnings, and Earnings.

Estimating Interim Ending Balances

Owners and managers of ongoing companies frequently have to estimate ending balances for the current year, as they plan the next year. This problem comes with the process of business planning. For example, if you are in the summer of 2001, developing a plan starting in January of 2002, then you need to estimate what your final 2001 balances will be. Ideally you can pick those balances up from your previous year's plan.

Does this influence the values in the next year? It does, but this kind of estimation is unavoidable. This is planning, not accounting. Estimates and educated guesses are part of the process.

Personal Financial Statement

The Personal Net Worth table is not really part of a business plan. BUSINESS PLAN PRO offers this table as a convenience to business owners whose business plan might be related to application for commercial bank loans. Figure 6-25 shows an example of this table.

FIGURE 6-25: PERSONAL FINANCIAL STATEMENT (NET WORTH)

Assets		
Current Assets	**Notes:**	**Balance**
Checking	Local bank account # 0000-00000	$874.00
Savings	Local bank account # 0000-00000	$2,350.00
Investment	Brokerage account # 0000-00000	$12,080.00
Household goods	Estimated	$25,000.00
Auto	2001 Chevrolet Impala	$32,000.00
Auto	1995 Ford Escort	$6,000.00
All other		$0.00
Total Current Assets		$77,814
Long-term Assets		
Main Residence	121 Elm St. Midtown, Mystate, 00000	$235,000
Improvements	Estimated	$15,000
Account		$0
All other		$0
Total Long-term Assets		[illegible]
Total Assets		[illegible]
Liabilities		
Current Borrowing		**Balance**
Credit card	Visa bank account # 0000-00000	$876
Credit card	Amex account # 0000-00000	$220
Credit card	Discover account # 0000-00000	$740
Auto Loan	Local bank auto loan # 0000-00000	$14,500
Other current debt		$0
Other current debt		$0
All other		$0
Subtotal Current Borrowing		$16,336
Long-term Borrowing		
Mortgage	Mortgage account # 0000-00000	$148,000
Other long-term loans		$0
All other		$0
Subtotal Long-term Borrowing		$148,000
Total Liabilities		[illegible]
Net Worth		[illegible]

The Personal Net Worth table shows the financial position of an individual. It is included here for business owners applying for commercial credit.

Personnel Plan

The standard Personnel Plan is a simple list with a sum at the bottom, as shown in Figure 6-26. You can list your personnel by name, as individuals, or in groups such as sales, marketing, etc.

FIGURE 6-26: STANDARD PERSONNEL PLAN

F7 =E7

	A	C	D	E	F	G	H
5							
6		Jan	Feb	Mar	Apr	May	Jun
7	Kevin	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
8	Erika	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
9	Daryl	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
10	Other	$0	$1,120	$3,472	$4,480	$4,480	$4,480
11							
12	Total People	3	7	7	7	7	7
13							

This simple example shows a personnel plan for a start-up pizza restaurant. The total flows automatically into the Profit and Loss table as Payroll.

The example shows three people identified by their name, and four other people grouped together as "Other." You can also have groups such as "Sales staff," "Marketing team," "Retail clerks," etc. You do not have to have a single row for every person.

Employee Count is Simple Data Input

Total People stands for total number of employees. BUSINESS PLAN PRO includes this row because many analysts consider it important, and it also contributes to the sales per employee calculation in the Ratios table. In the standard Personnel Plan and the Personnel by categories option in the PREMIER version, this row is a data entry. BUSINESS PLAN PRO doesn't calculate employee count automatically because there is no way to know how many people are included.

In the PREMIER version Personnel by People option, because you set number of people in each of the categories, BUSINESS PLAN PRO calculates the employee count for you.

More Expanded Options (PREMIER version)

In the PREMIER version, you have the choice of two more detailed Personnel Plan models:

1. **Expanded Categories.** In the PREMIER version if you choose to break your expenses into categories, you get a four-part Personnel Plan. The EasyPlan Wizard screens let you set the category names (e.g. production, marketing, administration, etc.). Figure 6-27 shows how the breakdown into categories would work for the same sample pizza restaurant whose standard personnel is in Figure 6-26.

FIGURE 6-27: PERSONNEL BY CATEGORY

F38 =Payroll3P+Payroll3SM+Payroll3GA+Payroll3OTH

	A	C	D	E	F	G	H
15	Personnel Plan						
16	Pizza Chefs Persor	Jan	Feb	Mar	Apr	May	Jun
17	Head Chef	$0	$0	$2,000	$2,000	$2,000	$2,000
18	Other	$0	$0	$0	$0	$0	$0
19	Subtotal	$0	$0	$2,000	$2,000	$2,000	$2,000
20							
21	Sales and Marketing Personnel						
22	Erika	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
23	Other	$0	$0	$0	$0	$0	$0
24	Subtotal	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
25							
26	General and Administrative Personnel						
27	Daryl	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
28	Kevin	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
29	Other	$0	$0	$0	$0	$0	$0
30	Subtotal	$9,000	$9,000	$9,000	$9,000	$9,000	$9,000
31							
32	Kitchen Personnel						
33	TBD	$0	$1,120	$1,472	$2,480	$2,480	$2,480
34	Other	$0	$0	$0	$0	$0	$0
35	Subtotal	$0	$1,120	$1,472	$2,480	$2,480	$2,480
36							
37	Total People	3	7	7	7	7	7
38	Total Payroll	$12,000	$13,120	$15,472	$16,480	$16,480	$16,480

This illustration shows the Personnel by Category option (PREMIER version), which breaks personnel into four categories. The first category is automatically included in costs of sales.

Your Personnel numbers will appear in different areas in your Profit and Loss statement. The first category, regardless of its name, goes into the Cost of Goods or Cost of Sales section. The other three categories of Personnel go into the Operating Expenses. Figure 6-28 shows how the first Personnel category ("Pizza Chefs" in this example) automatically appears in Profit and Loss, as "Pizza Chefs Payroll."

FIGURE 6-28: PERSONNEL AS COST OF SALES IN P&L

G6 =IF(PE_ExpenseCategories=TRUE,IF(PE_PersonnelAsPeople=TRUE,Payroll4P,Payroll

	A	E	F	G	N
1	Pro Forma Profit and Loss				
2					
3		Mar	Apr	May	Dec
4	Sales	$10,494	$19,[illegible]	$21,[illegible]	$[illegible]
5	Direct Costs of Goods	$4,722	$8,260	[illegible]	$11,[illegible]
6	Pizza Chefs Payroll	$2,000	$2,000	[illegible]	$2,000
7	Other Costs of Goods	$100	$100	$100	$100
8					
9	Cost of Goods Sold	[illegible]	$10,260	$11,[illegible]	$13,[illegible]
10	Gross Margin	[illegible]	[illegible]	[illegible]	[illegible]
11	Gross Margin %	34.99%	43.[illegible]%	46.14%	46.41%
12	Operating Expenses:				
13	Sales and Marketing Expenses:				
14	Sales and Marketing Payroll	$3,000	$3,000	$3,000	$3,000
15	Advertising/Promotion	$100	$100	$100	$100
16	Other Sales and Marketing Expense	$25	$25	$25	$25
17					
18	Total Sales and Marketing Expense	[illegible]	[illegible]	[illegible]	[illegible]
	Sales and Marketing %	29.78%	17.02%	14.67%	12.49%

If you choose to break expenses into categories, then the first Personnel option is included in Costs of Sales.

2. Number of People/Department. The people-based personnel plan, as shown in Figure 6-29, available only in the PREMIER version, lets you forecast numbers of people and average compensation per person. This is a matter of preference, and how you choose to forecast your personnel.

FIGURE 6-29: PERSONNEL BY PEOPLE

E62 =Payroll4P+Payroll4GA+Payroll4SM+Payroll4OTH

	A	C	D	E	F	G	H
40	Personnel Plan						
41	Sales Staff: Person	Jan	Feb	Mar	Apr	May	Jun
42	People	0	0	1	1	1	1
43	Average per Person	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000
44	Subtotal	$0	$0	[illegible]	[illegible]	[illegible]	[illegible]
45							
46	Sales and Marketing Personnel						
47	People	1	1	1	1	1	1
48	Average per Person	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
49	Subtotal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50							
51	General and Administrative Personnel						
52	People	2	2	2	2	2	2
53	Average per Person	$4,500	$4,500	$4,500	$4,500	$4,500	$4,500
54	Subtotal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
55							
56	Kitchen Personnel						
57	People	0	4	3	3	3	3
58	Average per Person	$0	$280	$491	$827	$827	$827
59	Subtotal	$0	$1,120	$1,472	$2,480	$2,480	$2,480
60							
61	Total People	3	7	7	7	7	7
62	Total Payroll Expense	$12,000	$13,120	$16,472	$16,480	$16,480	$16,480

In this Personnel option, you estimate people and average compensation per person. Total People is an automatic calculation.

QuickBooks® Option and Personnel

If your plan is set for the QuickBooks® option, you can choose to ignore the Personnel Plan to enhance QuickBooks compatibility. QuickBooks lumps personnel costs into the operating expenses.

To Learn More About...	Search the Help Index for...
Leaving the Personnel Plan table out of your plan	Unlink table

Profit and Loss

The Profit and Loss in BUSINESS PLAN PRO follows standard conventions, the format that most bankers, investors, and accountants are used to, by putting Sales at the top, followed by Cost of Sales or Cost of Goods Sold, to show Gross Margin, which is Sales less Cost of Sales. After that comes operating expenses, and, at the bottom, Profit as the bottom line. Figure 6-30 shows an example.

FIGURE 6-30: STANDARD PROFIT AND LOSS

N51 =profit_before_interest_and_taxes+net_other_income-interest_expense-taxes_incurred

	A	L	M	N	O	P	Q
1	Pro Forma Profit and Loss						
2		Oct	Nov	Dec	2003	2004	2005
3	Sales	$36,167	$39,885	$39,920	$279,415	$707,301	$770,608
4	Direct Costs of Goods	$16,275	$17,948	$17,964	$125,737	$318,286	$346,773
6	Other Costs of Goods	$100	$100	$100	$1,200	$1,320	$1,452
7							
8	Cost of Goods Sold	$16,375	$18,048	$18,064	$126,937	$319,606	$348,225
9	Gross Margin	$19,792	$21,837	$21,856	$152,478	$387,696	$422,382
10	Gross Margin %	54.72%	54.75%	54.75%	54.57%	54.81%	54.81%
11	Operating Expenses:						
20	Payroll	$16,480	$16,480	$16,480	$188,912	$241,680	$250,164
21	Depreciation	$1,250	$1,250	$1,250	$15,000	$35,000	$35,000
22	Advertising	$100	$100	$100	$1,200	$1,200	$1,200
23	Rent	$1,500	$1,500	$1,500	$18,000	$36,000	$36,000
24	Insurance	$200	$200	$200	$2,400	$3,600	$3,600
25	Payroll taxes	$2,472	$2,472	$2,472	$28,337	$36,252	$37,525
26	Other	$175	$175	$175	$2,025	$2,228	$2,450
27							
37	Total Operating Expenses	$22,177	$22,177	$22,177	$255,874	$355,960	$365,939
38	Profit Before Interest and Taxes	($2,385)	($340)	($321)	($103,395)	$31,736	$56,443
39	Interest Expense	$167	$167	$167	$2,000	$2,000	$2,000
40	Taxes Incurred	$0	$0	$0	$0	$1,487	$2,722
51	Net Profit	($2,552)	($507)	($488)	($105,395)	$28,249	$51,721
52	Net Profit/Sales	-7.06%	-1.27%	-1.22%	-37.72%	3.99%	6.71%
53	Include Negative Taxes				FALSE	TRUE	TRUE

The standard Profit and Loss table is arranged the way bankers and accountants expect to see it.

If you are working with a QuickBooks compatible plan, the BUSINESS PLAN PRO Profit and Loss appears slightly different. The format closely matches what you see in a QuickBooks summary Income Statement.

Expanded Profit and Loss (PREMIER version)

One important PREMIER option allows you to show non-operating income and non-operating expenses, on the profit and loss, below the gross profit. You can set this option in the Plan Setup in the EasyPlan Wizard Tasks view. Look for the setting for "Other Income and Expenses." Figure 6-31 shows you how this option expands the table to allow for these additional items.

FIGURE 6-31: PROFIT AND LOSS SHOWING OTHER INCOME

O42 =SUM(C42:N42)

	A	L	M	N	O	P	Q
1	Pro Forma Profit and Loss						
2		Oct	Nov	Dec	2003	2004	2005
3	Sales	$36,167	$39,885	$39,920	$279,415	$707,301	$770,608
4	Direct Costs of Goods	$16,275	$17,948	$17,964	$125,737	$318,286	$346,773
6	Other Costs of Goods	$100	$100	$100	$1,200	$1,320	$1,452
7							
8	Cost of Goods Sold	$16,375	$18,048	$18,064	$126,937	$319,606	$348,225
9	Gross Margin	$19,792	$21,837	$21,856	$152,478	$387,696	$422,382
10	Gross Margin %	54.72%	54.75%	54.75%	54.57%	54.81%	54.81%
11	Operating Expenses:						
20	Payroll	$16,480	$16,480	$16,480	$188,912	$241,680	$250,164
21	Depreciation	$1,250	$1,250	$1,250	$15,000	$35,000	$35,000
22	Advertising	$100	$100	$100	$1,200	$1,200	$1,200
23	Rent	$1,500	$1,500	$1,500	$18,000	$36,000	$36,000
24	Insurance	$200	$200	$200	$2,400	$3,600	$3,600
25	Payroll taxes	$2,472	$2,472	$2,472	$28,337	$36,252	$37,525
26	Other	$175	$175	$175	$2,025	$2,228	$2,450
27							
37	Total Operating Expenses	$22,177	$22,177	$22,177	$255,874	$355,960	$365,939
38	Profit Before Interest and Taxes	($2,385)	($340)	($321)	($103,395)	$31,736	$56,443
39	Interest Expense	$167	$167	$167	$2,000	$2,000	$2,000
40	Taxes Incurred	$0	$0	$0	$0	$1,487	$2,722
41	Other Income						
42	Interest Income	$100	$100	$100	$1,200	$0	$0
43	Other Income Account Name	$0	$0	$0	$0	$0	$0
44	Total Other Income	$100	$100	$100	$1,200	$0	$0
45							
46	Other Expense						
47	Account Name	$0	$0	$0	$0	$0	$0
48	Other Expense Account Name	$0	$0	$0	$0	$0	$0
49	Total Other Expense	$0	$0	$0	$0	$0	$0
50	Net Other Income	$100	$100	$100	$1,200	$0	$0
51	Net Profit	($2,452)	($407)	($398)	($104,195)	$28,249	$51,721
52	Net Profit/Sales	-6.78%	-1.02%	-0.97%	-37.29%	3.99%	6.71%
53	Include Negative Taxes				FALSE	TRUE	TRUE

In PREMIER version use your EasyPlan Wizard Tasks, the Plan Setup area, to set the plan to show Other Income and Other Expenses.

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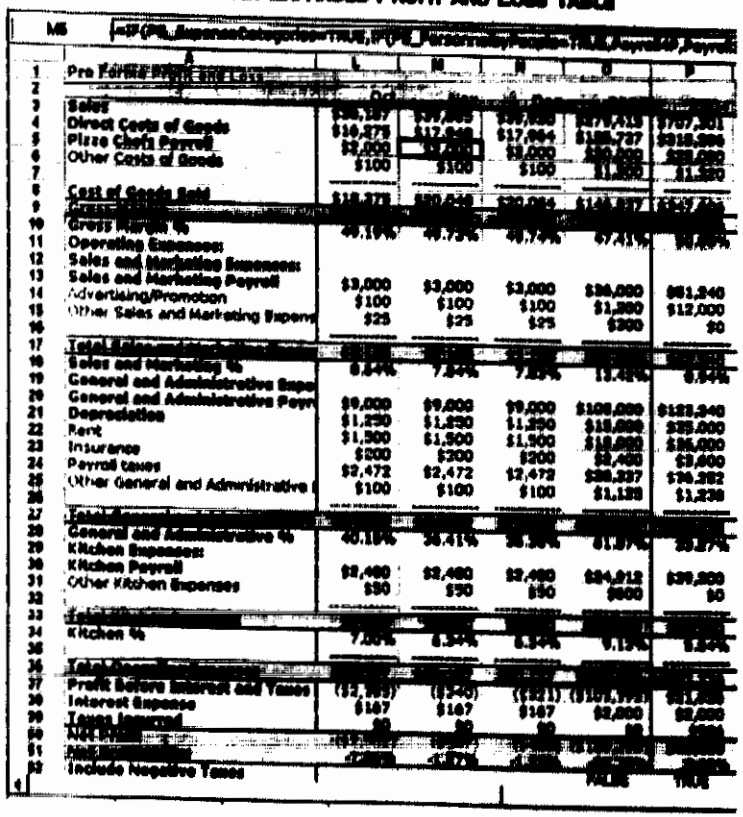
Figure 6-32 shows an example of the detailed Profit and Loss table, which is available in the PREMIER version. You can get this detail by choosing to break expenses into categories, in the Plan Setup portion of the EasyPlan Wizard Tasks. You can experiment with this difference by going to the EasyPlan Wizard and switching between breaking expenses into categories, and not, in the Plan Setup. When you break into categories, you see more rows in Profit and Loss. When you don't, you see fewer rows, but they are some of the same rows.

FIGURE 6-32: EXPANDED PROFIT AND LOSS TABLE



	A	L	M	N	O	P
1	Pro Forma Profit and Loss					
2						
3		Oct	Nov	Dec		
4	Sales	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	Direct Costs of Goods	$10,279	$12,[illegible]	$17,064	$188,737	$218,[illegible]
6	Pizza Chefs Payroll	$2,000	[illegible]	$2,000	[illegible]	[illegible]
7	Other Costs of Goods	$100	$100	$100	$1,200	$1,200
8						
9	Cost of Goods Sold	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	Gross Margin	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	Gross Margin %	40.19%	40.75%	40.75%	67.41%	[illegible]
12	Operating Expenses:					
13	Sales and Marketing Expenses:					
14	Sales and Marketing Payroll	$3,000	$3,000	$3,000	$36,000	$81,240
15	Advertising/Promotion	$100	$100	$100	$1,200	$12,000
16	Other Sales and Marketing Expens	$25	$25	$25	$300	$0
17						
18	Total Sales and Marketing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	Sales and Marketing %	8.84%	7.84%	7.84%	13.48%	8.84%
20	General and Administrative Expe					
21	General and Administrative Payr	$9,000	$9,000	$9,000	$108,000	$123,240
22	Depreciation	$1,250	$1,250	$1,250	$15,000	$25,000
23	Rent	$1,500	$1,500	$1,500	$18,000	$36,000
24	Insurance	$200	$200	$200	$2,400	$2,600
25	Payroll taxes	$2,472	$2,472	$2,472	$29,327	$30,282
26	Other General and Administrative	$100	$100	$100	$1,125	$1,230
27						
28	Total General and Administrative	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	General and Administrative %	40.19%	38.41%	38.38%	61.37%	38.37%
30	Kitchen Expenses:					
31	Kitchen Payroll	$2,400	$2,400	$2,400	$24,012	$30,200
32	Other Kitchen Expenses	$50	$50	$50	$600	$0
33						
34	Total Kitchen	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
35	Kitchen %	7.00%	6.34%	6.34%	9.13%	6.34%
36						
37	Total Expenses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	Profit Before Interest and Taxes	($2,[illegible])	($240)	($321)	($[illegible])	[illegible]
39	Interest Expense	$167	$167	$167	$2,000	$2,000
40	Taxes Incurred	$0	$0	$0	$0	[illegible]
50	Net Profit	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
51	Net Profit %	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
52	Include Negative Taxes				TRUE	TRUE

The detailed Profit and Loss table in PREMIER version divides expenses into categories.

Additional Background - Profit and Loss

Links from Other Tables

One of the most common errors with Profit and Loss is the failure to realize the extent to which it gets data from other tables. Sales and Costs of Sales come from the Sales Forecast. Payroll comes from the Personnel Plan. Interest Expenses are calculated automatically, from the Balance of Liabilities in the Balance Sheet and the Interest Rates in General Assumptions. Interest expenses generate more than their share of questions, so those are discussed in detail next.

Interest Expenses

Interest expenses depend on simplifying assumptions and simple mathematics. BUSINESS PLAN PRO multiplies your liabilities by your assumed interest rate to calculate interest expenses.

Interest expenses do not include principal repayment, just interest. Principal payments go into the Cash Flow table as data inputs, while interest expenses appear in Profit and Loss.

Some people are confused by the separation of loan payments into interest and principal. Their confusion makes sense; you write a single check to the bank, why divide payments into two? The reason for this potential confusion is that this treatment matches what happens with standard accounting.

- Interest expense is deductible against income to reduce taxable income and the tax burden. Interest expenses reduce profits (or increase losses).
- Principal payments are not deductible against income, and are not allowed as expenses. They reduce cash, not profits.

One problem that comes up with the interest expense is timing. Technically, a loan taken out on the first of the month should cause more interest expense than one taken out at the end of the month. Interest compounded daily will be more than interest taken once a month. In both of these cases, BUSINESS PLAN PRO settles for planning, not accounting; the difference in detail is far less than the uncertainty involved in your Sales Forecast, while the complexity involved in fine-tuning these details would hurt the overall planning process. It is a matter of relative uncertainty.

In the annual columns, this timing of interest is handled by simple averages. Since your outstanding balance normally changes from the beginning of the year to the end, BUSINESS PLAN PRO simply takes the mathematical average of beginning of year and end of year balances, and applies interest to that average. If you pay off the loan at any time during the year, BUSINESS PLAN PRO averages your starting balance and zero, so it estimates half a year's worth of interest. This again is a simplifying assumption, useful, and powerful, and worth noting.

You can work around these simplifying assumptions by adjusting your assumed interest rates. If you had a 10% loan to be paid off in the first month of the second year, change the effective interest to .833% (slightly less than one percent, 1/12 of 10%) and explain this change in the text associated with General Assumptions. You can also unlink the General Assumptions or hide the row, if you don't want to explain.

QuickBooks Option and Interest

If you choose the QuickBooks compatibility option, in the Plan Settings, then interest expenses are not automatic. Because QuickBooks lumps interest into the operating expenses, BUSINESS PLAN PRO doesn't calculate interest automatically, and leaves that up to you, so it remains compatible with your QuickBooks expenses.

Taxes

BUSINESS PLAN PRO handles taxes as simple mathematics, multiplying your assumed tax rate times the pre-tax profit without regard for graduated rates. If there's a loss for the year then it sets the effective tax rate at zero.

The pizza restaurant sample plan offers a useful example. First, take a look at this company's projected profitability, shown in Figure 6-32. This business plan projects losses during the first year of the plan, and profits in the second year. BUSINESS PLAN PRO sets the effective tax rate to zero during the loss year, then calculates taxes by multiplying the tax rate in General Assumptions times pretax profits.

You can check the General Assumptions for this same plan by checking back to Figure 6-15, which contains the general assumptions table. You'll notice in that table that the tax rate for the first year is 30%, but taxes for the second and third year are 5%. This is the correct handling for taxes in a loss situation.

Because of the loss, BUSINESS PLAN PRO ignored the 30% tax rate for the loss years, and the business planner who did the plan set the tax rate lower than that (5% instead of 30%) for the second and third years because the previous losses would offset taxes in that year.

The 'Include Negative Taxes' Row

In Figures 6-30, 6-31, and 6-32, notice the bottom row in Profit and Loss, "Include Negative Taxes." You can use that row to override the normal treatment and count negative taxes when there is a loss. To count the negative taxes, type TRUE into the annual column, even if the formula shows FALSE because there is no profit.

Taxes and Loss Carried Forward

Specifically, to handle taxes for a business plan that has a long string of losses:

- BUSINESS PLAN PRO will automatically override the tax rate to zero for the period of losses. The "Include Negative Taxes" row at the bottom will show as "False."
- If your plan includes early losses and making a profit later on, then you'll probably have a "loss carried forward" tax advantage that will reduce the tax rate when there are profits.
- Therefore your tax rate in the profitable periods should be less than it would have been. This should be a simple educated guess, you are not doing tax accounting here, just planning. Take whatever your tax rate would have been, and make it lower.
- If you insist on detailed mathematical calculations:
  Take the sum of the losses. For example, $100K.
  1. Multiply that by your estimated tax rate when you make profits. For example, $100K * .25 = $25K. Call that the loss carried forward.
  2. Subtract that amount ($25K) from the tax estimate of the first profitable year. For example, if the tax estimate was $50K at an estimated 25% rate, $50K minus $25K is $25K. Don't worry about making this an exact calculation, an estimate is good enough for planning purposes.
  3. Change your estimated tax rate in the profitable year to make the estimated tax equal to the reduced estimate. For example, if the estimated tax was $50K at 25%, and your target tax is $25K, then make your tax rate 12.5% for that first profitable year.
  4. Explain the adjustment in text. An example would be: "Taxes are set at zero during the loss periods. The loss carried forward impact reduces the estimated tax rate during the profitable periods." This should be in the text accompanying the General Assumptions table.

TIPS

Loss Carried Forward

The problem with losses is that tax treatment depends on what happens in the future. If your losses are followed later by profits, then the losses reduce future taxes on profits. This is called "Loss Carried Forward" in tax and accounting jargon.

BUSINESS PLAN PRO sets the tax rate to zero for losses, but it doesn't automatically adjust future tax rates for loss carried forward. Remember, this is planning, not accounting.

Sales Forecast

Forecasting is more art than science. Think of it as educated guessing. Like the weather forecast, it is a combination of knowing as much as you can about conditions and guessing what they mean for the future. You can do it. It may be hard to forecast, but it's even harder to run a business without forecasting.

The Sales Forecast in standard BUSINESS PLAN PRO is simple to understand. It has a group of rows for Sales, and a group of rows for Cost of Sales. Both of these sum to totals that reappear in your Profit and Loss table.

TIPS

More on Sales Forecast: Hurdle: The Book on Business Planning

Make sure you read the *Forecast Your Sales* section of your Hurdle book, which explains this in greater detail. Use the Resources button on the tool bar and then click the Books > Hurdle link to read the book in PDF format.

Figure 6-33 shows a sample sales forecast for a pizza restaurant. It has one block of rows for lines of sales, and another block for direct costs. If you've set your plan for a business that has inventory, the direct costs will be equivalent to inventory in cost of sales, or cost of goods sold.

FIGURE 6-33: SALES FORECAST

	A	B	C	D	E	F	G
1	Sales Forecast						
2	Sales		Jan	Feb	Mar	Apr	May
3	Individuals		$0	$0	$2,995	$6,812	$7,906
4	Families		$0	$0	$8,645	$9,874	$11,458
5	Take-out		$0	$0	$924	$1,069	$1,036
6	Total Sales		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7							
8	Direct Cost of Sales		Jan	Feb	Mar	Apr	May
9	Individuals	46.00%	$0	$0	$1,753	$3,066	$3,558
10	Families	46.00%	$0	$0	$2,540	$4,443	$5,156
11	Take-out	46.00%	$0	$0	$425	$781	$871
12	Subtotal		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

The standard forecast is a simple list of sales and cost of sales.

The row names in the cost of sales area are the same as the lines of sales above, in this example. You set or change them using the Edit Row Label command, so you can customize as much as you want. You can add and delete rows, to tailor your sales forecast to your business.

You may notice, in the sample forecast in Figure 6-33, that there are no sales projected for the first two months. This is not unusual in a start-up plan. The new pizza business in the sample expects to start up two months before it actually starts making sales.

Additional Information - Sales Forecast

Cost of Sales - Defined

The Sales Forecast includes Cost of Sales, as well as Sales. Cost of Sales is an important accounting concept. Sales less Cost of Sales results in Gross Margin. Analysts use it to compare different companies and different industries.

Cost of Sales for Type of Business

Cost of Sales is also called Direct Cost, and Cost of Goods Sold, depending on the type of business. Here are some concrete examples:

1. **Retail.** Goods that a retail business purchases and then resells to customers are the classic instance of Cost of Goods Sold. They belong in the Sales Forecast as Cost of Sales.
2. **Manufacturing.** Materials that a manufacturing company buys as raw materials for the manufacturing process are Costs of Goods Sold, or Cost of Sales, or Direct Unit Costs. In this case these terms are virtually interchangeable.

   If you want to include manufacturing labor as costs of Goods Sold, see the section titled "Handling Direct Labor as Cost of Sales" later in this chapter.
3. **Service.** Service businesses do have Costs of Sales. Accountants and attorneys have photocopying and research. Transportation businesses have fuel, maintenance, and drivers. News publications have the cost of newsprint and editors.

   If you want to include some salaries as costs of Goods Sold, see the section titled "Handling Direct Labor as Cost of Sales" later in this chapter.

TIPS

Ask an Accountant

The distinction between cost of sales and operating expenses is important, but sometimes subtle. In many cases the accountants make a determination based on judgement and experience. Your accountant may have an opinion in your case.

The Units-Based Forecast (PREMIER version)

In the PREMIER version of BUSINESS PLAN PRO the Sales Forecast can actually be one of two possible forecasts. You select one or the other using the EasyPlan Wizard, either when you start a new plan, or after that, by selecting Plan Setup from the File menu. The first of the two, and the simplest, is called the Value-based Sales Forecast. It has a group of rows for Sales, and a group of rows for Cost of Sales. (This is the only sales forecast included in standard BUSINESS PLAN PRO.) The second, called the Units-based Sales Forecast, projects Units, Price Per-unit, Sales, Cost Per-unit, and Costs. Figure 6-34 shows an example of a units-based sales forecast (with the same final sales and costs numbers as in Figure 6-33, the standard forecast).

FIGURE 6-34: UNITS SALES FORECAST

E28 =E17*E23

	A	B	C	D	E	F	G
15	Sales Forecast						
16	Unit Sales		Jan	Feb	Mar	Apr	May
17	Individuals		0	0	487	852	988
18	Families		0	0	332	581	674
19	Take-out		0	0	80	139	161
20	Total Unit Sales		0	0	899	1,572	1,824
21							
22	Unit Prices		Jan	Feb	Mar	Apr	May
23	Individuals		$8.00	$8.00	$8.00	$8.00	$8.00
24	Families		$17.00	$17.00	$17.00	$17.00	$17.00
25	Take-out		$12.00	$12.00	$12.00	$12.00	$12.00
26							
27	Sales						
28	Individuals		$0	$0	$3,895	$6,813	$7,906
29	Families		$0	$0	$5,645	$9,874	$11,458
30	Take-out		$0	$0	$954	$1,669	$1,936
31	Total Sales		$0	$0	$10,494	$18,356	$21,300
32							
33	Direct Unit Costs		Jan	Feb	Mar	Apr	May
34	Individuals	45.00%	$3.60	$3.60	$3.60	$3.60	$3.60
35	Families	45.00%	$7.65	$7.65	$7.65	$7.65	$7.65
36	Take-out	45.00%	$5.40	$5.40	$5.40	$5.40	$5.40
37							
38	Direct Cost of Sales		Jan	Feb	Mar	Apr	May
39	Individuals		$0	$0	$1,753	$3,066	$3,558
40	Families		$0	$0	$2,540	$4,443	$5,156
41	Take-out		$0	$0	$429	$751	$871
42	Subtotal Direct Cost of Sales		$0	$0	$4,722	$8,260	$9,585

The illustration shows a units-based sales forecast for the same numbers as in the previous, standard sales forecast. Notice how it multiplies units times price, and units times per-unit cost, to calculate sales and costs of sales.

TIPS

Switching Between Two Sales Forecasts (PREMIER version)

In the PREMIER version, when you have numbers in the Sales Forecast table (Value-based), and then switch to the other Sales option (Units-based), it will seem like you've lost data. You haven't.

There are two separate forecasts embedded within the plan file. When you go from one to the other, you make one active and the other inactive.

You can use this facility to create two Sales Forecasts, then switch between the two, and compare. This can help you develop a sense for how either of the two would affect other areas of the plan.

Average Price Calculation

BUSINESS PLAN PRO calculates average Price by dividing Sales by Units. Figure 6-35 shows what happens when a Unit-based Sales Forecast contains Prices but no Sales. The average Price of zero in the first-year column looks wrong, because the Price assumption is $25 per unit. However, look again: the average Price is zero, because if there are no sales—as is the case here—then the average price is zero.

FIGURE 6-35: NO SALES, NO PRICE

O20 =IF(O15<>0,O24/O15,0)

	A	M	N	O	P	Q
13	Sales Forecast					
14	Unit Sales	Nov	Dec	2003	2004	2005
15	Example	0	0	0	0	0
16	Other	1,815	1,905	14,010	20,000	25,000
17	Total Unit Sales	1,815	1,905	14,010	20,000	25,000
18						
19	Unit Prices	Nov	Dec	2003	2004	2005
20	Example	$25.00	$25.00	$0.00	$0.00	$0.00
21	Other	$50.00	$50.00	$50.00	$50.00	$50.00
22						
23	Sales					
24	Example	$0	$0	$0	$0	$0
25	Other	$90,750	$95,250	$700,500	$1,000,000	$1,250,000
26	Total Sales	$90,750	$95,250	$700,500	$1,000,000	$1,250,000
27						

Without any Unit Sales, the price calculation ends up as zero.

Figure 6-36 shows why BUSINESS PLAN PRO calculates the average Price from Sales and Units. In this example, volume changes price.

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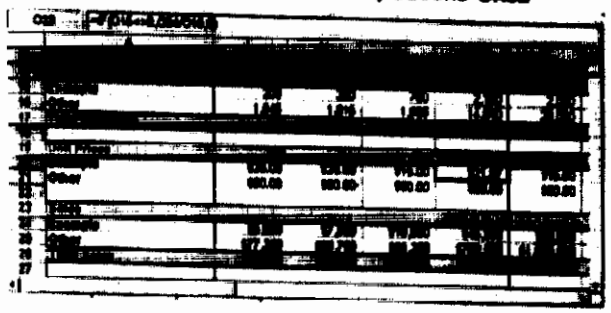
To calculate the average, you have to divide Total Sales for the year by Total Units for the year. The average Price isn't the mathematical average of 12 price assumptions in 12 columns; it is Sales divided by Units. As the example in Figure 6-36 shows, if you made $45,500 in sales on a volume of 2,100 units, the average price is $21.67 per unit.

FIGURE 6-36: AVERAGE PRICE, SECOND CASE



The price calculation depends on having Unit Sales.

Handling Direct Labor as Cost of Sales

Many companies have salaried employees whose compensation should be included in Cost of Sales. For example, assembly and manufacturing workers in a manufacturing company, or full-time consultants in a consulting company.

If you have the standard version, then you can add direct labor into the Profit and Loss table. You can use the row named "Other Costs of Sales" in the top section of Profit and Loss, inserting rows above it if you need to. Make sure as you do that you don't include these same costs in the Personnel table, because you don't want to count the same spending twice. Figure 6-37 shows an example.

To provide for this, if you have the PREMIER version you can simply set your plan to divide expenses into categories, then put these salaries into the first category. They will automatically flow into Cost of Sales, without affecting inventory.

FIGURE 6-37: DIRECT LABOR AS COST OF SALES, STANDARD VERSION

P6	2000				
	A	E	F	G	H
1	Pro Forma Profit and Loss				
2		Mar	Apr	May	Jun
3	Sales	$10,494	$18,356	$21,000	[illegible]
4	Direct Costs of Goods	$4,722	$8,260	$9,585	$11,[illegible]
6	Pizza Chef Salary	$2,000	$2,000	$2,000	$2,000
7	Other Costs of Goods	$100	$100	$100	$100
8					
9	Cost of Goods Sold	$6,822	$10,360	$11,685	$13,[illegible]
10	Gross Margin	[illegible]	[illegible]	[illegible]	[illegible]
11	Gross Margin %	34.99%	43.[illegible]%	45.14%	46.81%
20	Expenses:				
21	Payroll	$15,472	$16,480	$16,480	$16,480
22	Depreciation	$1,250	$1,250	$1,250	$1,250
23	Advertising	$100	$100	$100	$100
24	Rent	$1,500	$1,500	$1,500	$1,500
25	Insurance	$200	$200	$200	$200
26	Payroll taxes	$2,321	$2,472	$2,472	$2,472
27	Other	$100	$100	$100	$100
37					
38	Total Operating Expenses	[illegible]	[illegible]	[illegible]	[illegible]
39	Profit Before Interest and Taxes	($17,271)	($14,106)	($12,497)	($10,442)
40	Interest Expense	$167	$167	$167	$167
41	Taxes Incurred	$0	$0	$0	$0
52	Net Profit	($17,438)	($14,273)	($12,663)	($10,608)
53	Net Profit/Sales	-166.17%	-77.76%	-59.40%	-49.[illegible]%

The illustration shows how a sample company handles direct labor as cost of sales in the Profit and Loss table.

As an additional option, if you don't have inventory, you can put direct labor into the sales forecast as an additional row. This works only for companies that don't have inventory. In this case too, you should be sure not to count personnel twice, so if you put direct labor into the sales forecast costs area, don't add the same costs into the personnel plan as well.

Advanced Formulas

Your main help includes an example of a simple formula that copies whatever price is in the first column all the way through the whole 12 months and three or five years. Use that and then you can change a price assumption by just changing the first month.

?	To Learn More About...	Search the Help Index for...
	Copying a formula across months and years	Spreadsheet formulas

Start-up

The EasyPlan Wizard sets each business plan as either a start-up company or an ongoing company. The start-up companies have the Start-up table. This table will establish the starting balances in the Balance Sheet table. Figure 6-38 shows an example of a standard start-up table.

FIGURE 6-38: START-UP TABLE

	Start-up Expenses	
	Legal	$500
	Stationery etc.	$200
	Expensed Equipment	$2,000
	Other	$500
	Total Start-up Expenses	$3,000
	Start-up Assets Needed	
	Cash Balance on Starting Date	$13,000
	Other Short-term Assets	$500
	Total Short-term Assets	$13,500
	Long-term Assets	$0
	Total Assets	$13,500
	[illegible]	[illegible]
	Funding	
	Investment	
	Investor 1	$12,000
	Investor 2	$0
	Other	$500
	Total Investment	$12,500
	Short-term Liabilities	
	Accounts Payable	$0
	Current Borrowing	$2,000
	Other Short-term Liabilities	$2,000
	Subtotal Short-term Liabilities	$4,000
	Long-term Liabilities	$0
	Total Liabilities	$4,000
	Loss at Start-up	($3,000)
	Total Capital	$9,500
	[illegible]	[illegible]

The Start-up table lists assets and expenses before the beginning of the plan.

TIPS

Timing is Everything

Don't count expenses twice: they go in Start-up or Profit and Loss, but not both. The only difference is timing. Don't buy assets twice: they go into the Start-up if you acquire them before the starting date. Otherwise, put them in the Profit and Loss.

Start-up Specifics

- **Start-up Expenses.** These are expenses that happen before the beginning of the plan, before the first month. For example, many new companies incur expenses for legal work, logo design, site selection and improvements, and other expenses. This is a simple list, for which you can both insert and delete rows.
- **Cash Balance on Starting Date.** BUSINESS PLAN PRO calculates your starting cash with simple arithmetic. Cash goes into your Start-up table as either Investment or borrowed money. It goes out as the sum of start-up expenses plus all other starting assets (inventory, other current assets, and long-term assets). What's left over, money raised but not spent, is starting cash.
- **Start-up Assets Needed.** Typical start-up assets are cash (the money in the bank when the company starts), and in many cases starting inventory. Other starting assets are both current and long-term, such as equipment, office furniture, machinery, etc.

BUSINESS PLAN PRO assigns Assets into fixed categories, because those same categories are also already in the Balance Sheet and Cash Flow tables. All companies will see rows for Cash, Other Current Assets, and Long-term Assets. Companies that deal with inventory (an EasyPlan Wizard setting) will also see a cell for Starting Inventory.

You don't enter cash into your start-up assets directly. BUSINESS PLAN PRO puts the cash into your plan by taking the sum of financing and subtracting expenses and other assets.

- **Funding.** This includes both Capital Investment and Loans. The investment section is another summary list area, so that you can add or delete rows and rename the row labels to complete your list. The loans section is defined with the same categories used in the Balance Sheet and Cash Flow.
  The only investment amounts or loan amounts that belong in the Start-up table are those that happen before the beginning of the plan. Whatever happens during or after the first month should go instead into the Cash Flow table, which will automatically adjust the Balance Sheet.
- **Start-up Requirements.** Start-up requirements are the simple sum of Start-up Expenses and Start-up Assets.

Since timing is the only distinction between these and normal expenses and assets, the start-up requirements numbers are not as magical and all-encompassing as we might like. As we've explained, standard accounting sets this distinction, so it can't be helped.

Expenses vs. Assets

Many people can be confused by the accounting distinction between expenses and assets. For example, they'd like to record research and development as assets instead of expenses, because those expenses create intellectual property. However, standard accounting and taxation law are both strict on the distinction:

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- Expenses are deductible against income, so they reduce taxable income.
- Assets are not deductible against income.

Some people are also confused by the specific definition of start-up expenses, start-up assets, and start-up financing. They would prefer to have a broader, more generic definition that includes, say, expenses incurred during the first year, or the first few months, of the plan. Unfortunately this would also lead to double counting of expenses and non standard financial statements. All the expenses incurred during the first year have to appear in the Profit and Loss statement of the first year, and all expenses incurred before that have to appear as start-up expenses.

This treatment is the only way to correctly deal with the tax implications and the proper assigning of expenses to the time periods they belong. Tax authorities and accounting standards are clear on this, so BUSINESS PLAN PRO has no choice.

What a company spends to acquire assets is not deductible against income. For example, money spent on inventory is not deductible as expense. Only when the inventory is sold, and therefore becomes cost of goods sold or cost of sales, does it reduce income.

TIPS

Why You Don't Want to Capitalize Expenses

Sometimes people want to treat expenses as assets. Ironically, that's usually a bad idea, for several reasons:

- Money spent buying assets isn't tax deductible. Money spent on expenses is deductible.
- Capitalizing expenses creates the danger of overstating assets.
- If you capitalized the expense, it appears on your books as an asset. Having useless assets on the accounting books is not a good thing.

One common misconception involves development expenses. Generally companies want to maximize deductions against income as expenses, not assets, because this minimizes the tax burden. With that in mind, seasoned business owners and accountants will always want to account for money spent on development as expenses, not assets. This is generally much better than accounting for this expenditure as buying assets, such as patents or product rights.

Assets look better on the books than expenses, but there is rarely any clear and obvious correlation between money spent on research and development and market value of intellectual property. Companies that account for development as generating assets can often end up with vastly overstated assets, and questionable financials statements. Whenever you have the choice, you should prefer to treat development as an expense.

Another common misconception involves expensed equipment. The standard BUSINESS PLAN PRO Start-up table includes Expensed Equipment among start-up expenses because the U.S. tax authority (Internal Revenue Service, IRS) allows a limited amount of office equipment purchases to be called expenses, not purchase of assets. As of the date this was written, that amount was $17,000 per year. You should check with your accountant to find out whether this rule has changed recently. As a result, expensed equipment is taking advantage of the allowance.

After your company has used up the allowance, then additional purchases have to go into assets, not expenses. This treatment also indicates the general preference for expenses over assets, when you have a choice.

Start-up Requirements - Example

Start-up requirements are the simple sum of Start-up Expenses and Start-up Assets.

Figure 6-39 shows the upper portion of the Start-up table for a sample business plan. Start-up Expenses come to a total of $33,750 and Start-up Assets total $499,000. Start-up Requirements in this case are $532,750, the sum of $499,000 plus $33,750.

FIGURE 6-39: START-UP EXPENSES AND ASSETS

Start-up Expenses	
Legal	$1,000
Stationery, etc.	$2,500
Brochures	$5,000
Consultants	$15,000
Insurance	$250
Rent	$500
Research and Development	$1,000
Expensed Equipment	$3,500
Other	$5,000
Total Start-up Expense	**$33,750**
Start-up Assets Needed	
Cash Balance on Starting Date	**$494,000**
Other Short-term Assets	**$5,000**
Total Short-term Assets	**$499,000**
Long-term Assets	**$0**
Total Assets	**$499,000**
Total Requirements	**$532,750**

Start-up Requirements include Expenses and Assets.

TIPS

Cash Requirements (Cash Balance on Starting Date)

The Cash Requirements cell is labeled Cash Balance on Starting Date because that is what it should be when your plan is done. However, you don't set cash requirements—BUSINESS PLAN PRO calculates this cell automatically, subtracting the money you spend on expenses and assets from the money you raise as investments or loans.

Start-up vs. Total Requirements

The Start-up table adds Start-up Expenses plus Start-up Assets to create an estimate of Start-up Requirements. While a useful number, use it as an estimate only:

- It doesn't include additional funding that enters into the Cash Flow table in the early months of the business. For example, your plan might need to add capital in the third month, or borrow money in the second month. In that case your cost is greater than what shows on the Start-up table.
- It doesn't automatically check for negative balances in the early months of cash flow (although the EasyPlan Wizard does check, later, and suggests that you add cash to compensate for negative balances).

Start-up Liabilities and Capital

Figure 6-40 shows the rest of the Start-up table, the financing section. This is where you enter assumptions for money coming into the business at start-up, as investments and loans.

TIPS

Assets = Capital + Liabilities

As always, it's the standard equation in accounting. Assets are always equal to capital plus liabilities. The Start-up table makes sure that's so.

FIGURE 6-40: START-UP LIABILITIES AND CAPITAL

Investment	
Investor 1	$500,000
Investor 2	$32,750
Other	$0
Total Investment	$532,750
Short-term Liabilities	
Accounts Payable	$0
Current Borrowing	$0
Other Short-term Liabilities	$0
Subtotal Short-term Liabilities	$0
Long-term Liabilities	$0
Total Liabilities	$0
Loss at Start-up	($33,750)
Total Capital	$499,000
Total Capital and Liabilities	[illegible]

The financing portion of the Start-up table plans on money coming into the business as loans and investment.

Start-up Expenses and Start-up Losses

Your Loss at Start-up will always be equal to your Start-up Expenses (that's proper accounting). If you had $33,750 as Start-up Expenses, as in Figure 6-39, then you also have $33,750 loss as the Loss at Start-up, shown in Figure 6-40. The signs are reversed, because of accounting convention. The Start-up Expenses show positive, and the Start-up Loss shows negative (frequently shown in parenthesis or a red color).

Types of Start-up Financing

- Investment in the Start-up Financing is investment in the company. It ends up as Paid-in Capital in the Balance Sheet. This is the classic concept of business investment, taking ownership in a company, risking money in the hope of gaining money later.
- Accounts Payable in Start-up Financing are debts that will end up as Accounts Payable in the Balance Sheet. Generally this means credit-card debt. This number becomes the starting balance of your Balance Sheet.
- Current Borrowing is standard debt, borrowing from banks, Small Business Administration, or other current borrowing.
- Other Current Liabilities are additional liabilities that don't have interest charges. This is where you put loans from founders, family members, or friends. We aren't recommending interest-free loans for financing, by the way, but when they happen, this is where they go.
- Long-term Liabilities are long-term debt, long-term loans. Look to your BUSINESS PLAN PRO Glossary for more information on distinguishing between current (or short-term) and long-term.

Understanding the Loss at Start-up

BUSINESS PLAN PRO calculates the Loss at Start-up by subtracting capital and liabilities from assets, forcing the accounting equation of balance: **Assets = Capital + Liabilities**

TIPS

Expect a Loss at Start-up

The loss at start-up is very common...at this point in the life of the company, you've already incurred tax-deductible expenses, but you don't have sales yet. So you have a loss. Don't be surprised; it's normal.

How Much Cash for Start-up?

Cash requirements is an estimate of how much money your start-up company needs to have in its checking account when it starts. Of course you don't automatically know how much that is, and you can't calculate it by using just the Start-up table either. This is a suggested approach:

1. Fill in your Start-up table with estimates, based on what you know about your business, what you can find out from team members, and what you can find out through business research. Estimate Start-up Expenses and the other Start-up Assets that aren't cash.
2. Fill in your initial estimates for Sales Forecast, Personnel Plan, and Expenses in Profit and Loss tables.
3. Look at your Cash Flow chart. Expect the Cash Balance to go into negative numbers. Find out the maximum negative balance for the first year. Write that number down.
4. Come back into your Start-up table and add enough additional cash in loans or investment to make that negative balance in Cash Flow turn positive.

This will be a better estimate of Start-up Cash requirements than your original estimate. Then, as you work with your plan, changing estimates in other tables, remember to go back to your start-up requirements to add cash as needed to keep the first year's Cash Balance positive.

Chapter 3, Guided Tour, offers an example of the step-by-step way to estimate the amount you need in starting cash.

TIPS

Shouldn't I Start with More Money?

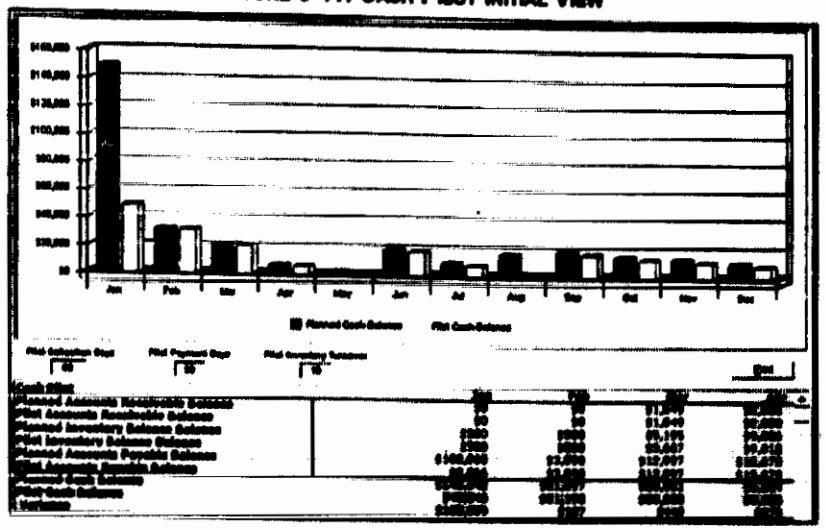
If you can, yes. Many entrepreneurs decide they want to raise more cash than they need so they'll have money left over for contingencies.

However, although that makes good sense when you can do it, it is hard to explain that to investors. The outside investors don't want to give you more money than you need, for obvious reasons—it's their money!

Cash Pilot (PREMIER version)

Cash Flow is not intuitive. The Cash Pilot is a graphic tool that gives you special power to deal with the underlying assumptions for Accounts Receivable, Accounts Payable, and Inventory. These are all critical to cash flow. Figure 6-41 shows the Cash Pilot as it starts for the Pizza restaurant used for other examples in this chapter.

FIGURE 6-41: CASH PILOT INITIAL VIEW



The Cash Pilot gives you a visual tool for managing three key assumptions in your Balance Sheet, that affect your cash flow.

TIPS

Accessing the Cash Pilot (PREMIER version)

The Cash Pilot is available in BUSINESS PLAN PRO PREMIER version only. If you have the PREMIER version installed, you can access the Cash Pilot from the Instructions area in the Cash Flow table.

The key to the Cash Pilot is in the middle section, which presents you with three critical inputs.

1. Collection Days Estimator.
2. Payment Days Estimator.
3. Inventory Turnover Estimator.

Collection Days Estimator

The Collection Days assumption sets the average number of days estimated for collecting bills—Accounts Receivable. Watch how your cash position changes when you change this assumption—the fewer the collection days, the more cash. The reason, of course, is that the higher the collection days estimate, the higher the estimated balance for Accounts Receivable. This balance is critical to Cash Flow.

Of course this calculation is only relevant for companies that have sales on credit, which is one of the plan settings. If your plan doesn't include sales on credit, collection days in the Pilot will have no effect.

Accountants and financial analysts calculate collection days to measure changes in receivables management. They work with average balances for the year and use a standard formula to calculate collection days, which is supposed to be the number of days your company waits between delivering an invoice and collecting the money. The higher the collection days, the higher the average balance of receivables. If collection days is 30, that means you normally have one month's worth of sales on credit in receivables. Collection days of 45 means about a month and a half, 60 means two months.

The Cash Pilot in BUSINESS PLAN PRO uses simple algebra to reverse that formula and calculate the Accounts Receivable Balance from Sales on Credit and Collection Days. It calculates sales on credit from your percentage sales on credit assumption, multiplied by your sales projection. The accounts receivable balance leads easily to calculations of its cash impact. The payments on accounts receivable are automatically calculated in the Cash Flow table. The details on the Pilot's calculations of Accounts Receivable, including Balances, Payments, and Sales on Credit, are in the Cash Pilot table.

When you increase the average collection days you decrease cash, and vice-versa. The model offers a quick lesson in the relationship between cash flow and accounts receivable.

The Cash Pilot uses a different set of logic to calculate the Accounts Receivables balance for the years. For the first year, the balance is the same as the Ending Balance in the twelfth month. In the second year, the calculation takes the Ending Balance and compares it to Sales on Credit, as a percentage. It also calculates the change in the Collection Days assumption, if any. These ratios are applied to that year's Sales on Credit to estimate the Ending Balance of Receivables. So for example, for the first year there were $100K Sales on Credit and an Ending Balance of $40K

in Accounts Receivable. If the second year's Sales on Credit are $150K, and there is no change in Collection Days assumptions, then the second year's Ending Balance would be $60K, which is (40/100)*150. If the first year's Collection Days assumption was 60, and the second year's Collection Days was 30, then the resulting estimated balance would be $30K, calculated as (40/100)*150*(30/60).

This revised formula has the advantage of a more accurate reflection of growth. The $40K Ending Balance in the first year indicates month-to-month growth, because the average monthly Sales for the year would be $8,333 (1/12 of $100K) so 60 Collection Days would mean twice that, $16,666, in Accounts Receivable. The Ending Balance of $40K indicates growth, Sales of about $20K per month towards the end of the year. If we calculated the next year's Collection Days based on average Sales without taking this growth into account, the resulting balance estimate would be $12,500 (150/12), a single month's Sales on Credit. Instead, we estimate $30K because the ratio of Sales on Credit and Ending Balance is more important. Sales are growing from $100K to $150K. Even with the improvement in Collection Days from 60 to 30, it would be illogical to see the Accounts Receivable balance fall from $40K to $12,500.

The Pilot uses the same logic to estimate the third year balance by calculating from the ratio between Sales on Credit, second year Ending Balance, and Collection Days assumptions.

Payment Days Estimator

The Payment Days calculations work like the Collection Days, but for Accounts Payable instead of Accounts Receivable. Set the average payment period assumptions with the Cash Pilot. The pilot then calculates the Accounts Payable Balance and that impacts the Payments of Accounts Payable, which affect the Cash Flow. The Accounts Payable Balance is in the Balance Sheet table.

The Payment Days assumption works exactly opposite to the collection days. As the payment period increases, so does cash. BUSINESS PLAN PRO estimates payables balance with an algebraic formula. New Accounts Payable and Payment Days are the independent variables, and the Balance is the unknown. The software takes the Collection Days formula:

Payment days=Average Payables balance*365/New Accounts Payable

And reverses it to calculate the Accounts Payable Balance:

Payables balance=(Payment days*New Accounts Payable)/365

This works well for a lot of normal cases. It's an elegant solution. Still, you should also be aware that the Payment Days ratio is based on average balance, not ending balance. Therefore, technically, the calculation estimates average balance, not ending balance.

For annual estimates of payables, the Cash Pilot calculates average ratios of accounts payable to sales, adjusting for changes in payment days estimators, instead of using the same algebra as used for monthly calculations.

Inventory Turnover Estimator

For retail, manufacturing, or other product based companies, the Cash Pilot automatically helps you calculate the turnover rates for your company, based on the average monthly balance of inventory. Service companies, which normally don't maintain product inventories, can assume extremely high inventory turnover (100, for example) to create very low inventory balances on the worksheet. The Pilot uses Inventory Turnover and Cost of Unit Sales to calculate alternate Inventory Balances, and those affect the Cash Flow.

You don't need to do complicated inventory turnover assumptions to work with your Cash Flow, or with BUSINESS PLAN PRO, or with the Cash Pilot. The whole idea of the Cash Pilot is the ability to experiment, so you can type different turnover values into the pilot and see how they affect inventory. The higher the turnover rate, the lower the average inventory. Therefore, the higher the turnover rate, the better the cash flow.

These calculations depend on the nature of turnover, which is a matter of dividing the average inventory balance by the annual cost of goods sold, or cost of sales. A turnover rate of 12 means about one month inventory on average. A turnover rate of 6 means two months, 4 means three months, and 3 means four months. A turnover of 2 is six months' worth of inventory on average, and a rate of 1 means a year's worth of inventory, on average.

As with receivables and payables, BUSINESS PLAN PRO estimates your Inventory Balance using an algebraic formula based on the business ratio, but reversed and adjusted. Accountants and financial analysts calculate Inventory Turnover, the business ratio, by dividing annual Cost of Sales by the average Inventory Balance. They calculate the average balance by adding starting and ending balance together and dividing by two.

Turnover=cost of sales/inventory balance

The Cash Pilot, on the other hand, needs to estimate your ending Inventory Balance because that's critical to Cash Flow. It knows your Cost of Sales and it knows your Inventory Turnover, because you estimated turnover as an assumption. Therefore, using simple algebra, BUSINESS PLAN PRO estimates the Inventory Balance using turnover and cost of sales as the known variables, and finding the balance as the unknown. The formula is:

Inventory balance=cost of sales/turnover

This is a good formula for planning, but you should also be aware of some underlying problems:

- The turnover ratio is based on average balance, not ending balance. Therefore, technically, the calculation estimates average balance, not ending balance.

- BUSINESS PLAN PRO applies the formula to monthly ending balance, not annual balance, so it multiplies cost of sales by 12 to estimate annual sales:

Inventory balance=(cost of sales*12)/turnover

For annual inventory estimates the Cash Pilot doesn't use the same formula for calculating the ending-year inventory balances in the plan years after the first year.

- For the first year, the balance is the same as the Ending Balance in the twelfth month.
- In the second year, the calculation takes the Ending Balance and compares it to second-year Sales, as a percentage. It also calculates the change in the Turnover assumption, if any. These ratios are applied to that year's Sales to estimate the Ending Inventory Balance.

So for example, for the first year there were $100K Cost of Sales and an ending balance of $40K in Inventory. If the second year's Cost of Sales are $150K, and there is no change in Turnover assumptions, then the second year's Ending Balance would be $60K, which is (40/100)*150. If the first year's Turnover assumption was 6, and the second year's turnover was 9, then the resulting estimated balance would be $45K, calculated as (40/100)*150*(6/9).

BUSINESS PLAN PRO uses the same logic to estimate the third year balance by calculating from the ratio between Cost of Sales, second year Ending Balance, and Turnover assumptions.

TIPS

Fine Tuning your Inventory

Inventory estimates are simple and powerful, but not complex. All the calculations are based on the Cost of Sales portion of your Sales Forecast.

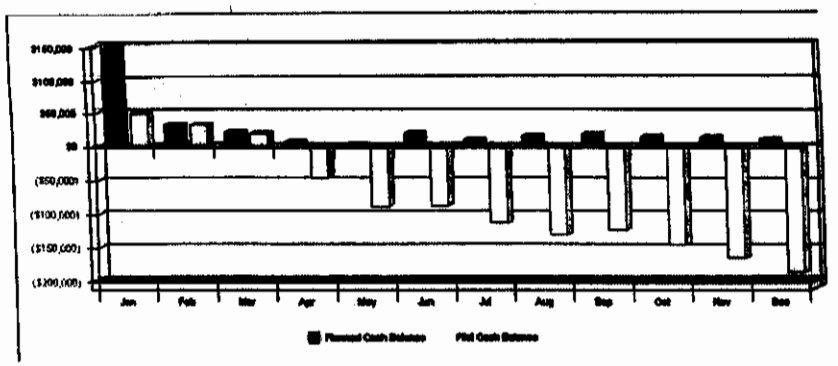
If you need more complex treatment, such as separating finished goods inventory from work in process for a manufacturing company, you can do that with a new table you define yourself. You have a complete spreadsheet application to work with, with hundreds of functions.

Working with the Cash Pilot

Figure 6-42 shows a hypothetical next step with the Cash Pilot, for the example pizza restaurant used in this chapter. In this example we don't have significant sales on credit, so to show the impact of changing Cash Pilot assumptions we took inventory turnover from 10, which was where it started, to 1. That's probably not a realistic estimate for a pizza restaurant, because inventory is mainly foodstuffs, so it would be hard to keep a year's worth on hand. Still it does show how dramatically the Cash Pilot assumptions can affect balances and cash flow.

In this example, the change in inventory assumptions does terrible things to planned cash flow. If the pizza restaurant were keeping a year's worth of inventory on hand, then it would need tens of thousands of dollars of additional working capital. This change shows the importance of the Cash Pilot and the way it can manage cash planning.

FIGURE 6-42: ADJUSTING ASSUMPTIONS WITH CASH PILOT



Pilot Collection Days: 60 | Pilot Payment Days: 30 | Pilot Inventory Turnover: 4

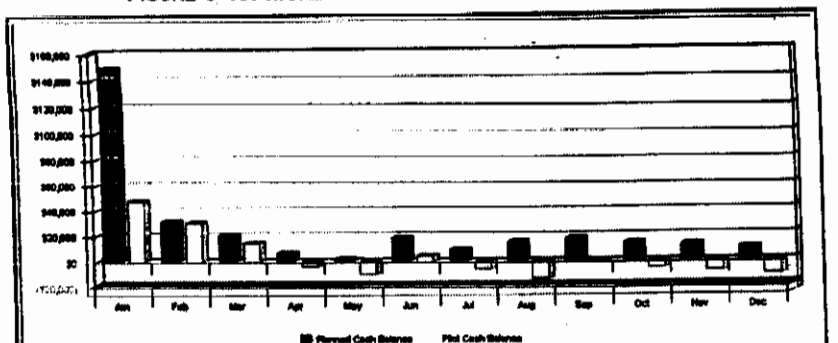
Pilot

Cash Pilot	Jan	Feb	Mar	Apr
Planned Accounts Receivable Balance	$0	$0	$1,049	[illegible]
Pilot Accounts Receivable Balance	$0	$0	$1,049	[illegible]
Planned Inventory Balance Balance	$500	$500	$5,195	[illegible]
Pilot Inventory Balance Balance	$500	$500	$56,669	$99,121
Planned Accounts Payable Balance	$102,965	$2,030	$62,299	$92,604
Pilot Accounts Payable Balance	$2,896	$2,030	$62,299	$92,604
Planned Cash Balance	$148,642	$31,297	$20,801	$6,404
Pilot Cash Balance	$48,943	$31,180	$18,669	[illegible]
Variance	$100,099	$187	$2,132	$53,298

In this example, the Cash Pilot took inventory from 10 turns per year to 1 turn per year, meaning a year's worth of inventory on average. This is not a realistic assumption, but it illustrates how important these key items are to cash flow. If the inventory were adjusted according to this view, the pizza company has serious cash flow problems.

In Figure 6-43 we adjusted the Cash Pilot yet again, this time changing both inventory and payables assumptions to make them more realistic. The initial inventory assumptions were too optimistic, the second set of assumptions way too pessimistic, so this third set is more realistic. Even though inventory is mostly foodstuffs, it is also packaging, and seasonings, and many of its foodstuffs are processed or frozen. Therefore it keeps an average of two months of inventory on hand, in this example, which is a turnover rate of 6. In addition, it needs to pay its vendors faster than 30 days, so that assumption changes to 20 days, on average. You can see the result in Figure 6-43.

FIGURE 6-43: MORE REALISTIC CASH PILOT ASSUMPTIONS



Pilot Collection Days: 60 | Pilot Payment Days: 30 | Pilot Inventory Turnover: 6

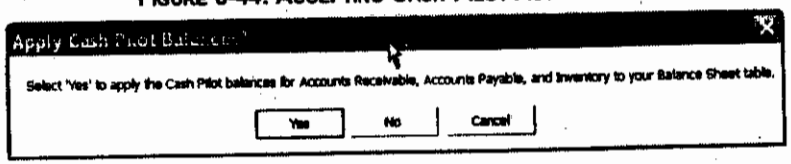
Pilot

Cash Pilot	Jan	Feb	Mar	Apr
Planned Accounts Receivable Balance	$0	$0	$1,049	$2,885
Pilot Accounts Receivable Balance	$0	$0	$1,049	$2,150
Planned Inventory Balance Balance	$500	$500	$5,195	$9,086
Pilot Inventory Balance Balance	$500	$500	$9,445	$18,820
Planned Accounts Payable Balance	$102,965	$2,030	$10,908	$12,859
Pilot Accounts Payable Balance	$1,878	$2,030	$10,908	$12,859
Planned Cash Balance	$148,642	$31,297	$20,801	$6,404
Pilot Cash Balance	$47,555	$30,121	$14,486	[illegible]
Variance	$101,087	$1,175	$6,315	$10,497

With the more realistic assumptions in this case, the Cash Pilot is an improvement on cash planning, although it still shows negative cash.

As the Cash Pilot assumptions become more realistic, you can choose to replace your previous balance assumptions with the Cash Pilot's balance assumptions instead. Just click the OK button and the dialog shown in Figure 6-44 will appear, offering you the choice of adopting the Cash Pilot estimates.

FIGURE 6-44: ACCEPTING CASH PILOT ASSUMPTIONS



The dialog lets you replace Balance Sheet assumptions with Cash Pilot estimates.

In this case, the pizza restaurant example, after accepting the Cash Pilot revisions as more realistic, the planners would have to go back to cash flow and solve the related cash flow problem. The chart in Figure 6-43 shows that the cash balance is negative when the Cash Pilot estimates replace the originals. More working capital is needed. Accepting the Cash Pilot estimate in this example means a more realistic cash flow, so the plan requires slightly higher borrowing or capital investment. This may seem negative, but it's far better to plan for real needs than to underestimate.

TIPS

If You Use the Pilot Estimates, You Must Update with Changes

When the Cash Pilot updates your balance sheet estimates with its estimates, it puts these numbers as numbers, not formulas. Therefore, if you change anything after adopting Cash Pilot estimates, you must go back and confirm the Cash Pilot again. Otherwise, if the Cash Pilot established formulas, then you'd lose the ability to experiment with Cash Pilot values, choosing to save them or not.

Background - The Cash Pilot Table

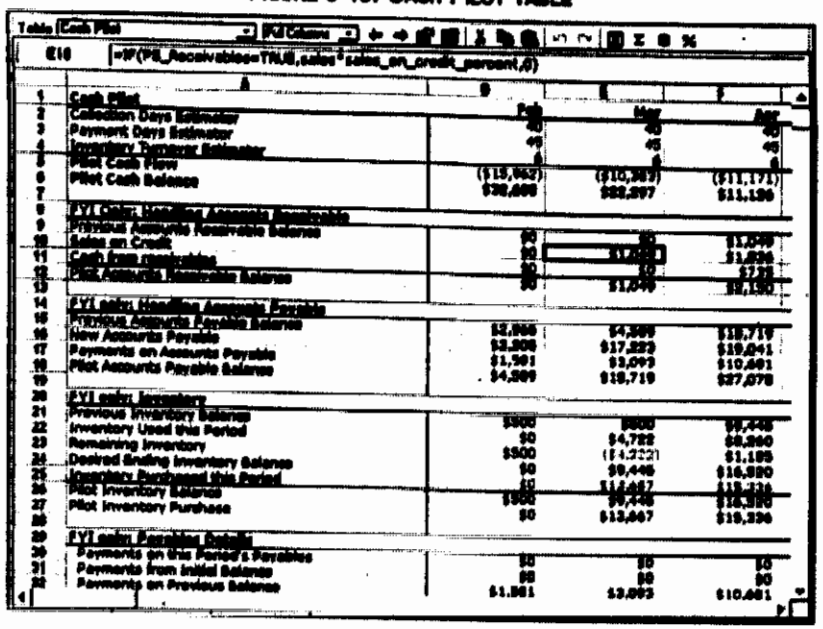
You can access the Cash Pilot table, which details assumptions and formulas, by using the Views > Tables command. The Cash Pilot table won't print as part of your plan unless you specifically link it to some topic, which doesn't normally happen. It is there just to make assumptions transparent. Figure 6-45 shows a view of that table.

TIPS

Estimators and Ratios are Different

We use the estimators as educated guesses, part of our own proprietary mathematical formulas to estimate balances. In the ratios table we calculate the resulting ratios using the standard accounting formulas for ratios, after the fact. They are rarely going to be exactly the same.

FIGURE 6-45: CASH PILOT TABLE



	A	B	C	D
1	Cash Pilot			
2	Collection Days Estimator	Feb	Mar	Apr
3	Payment Days Estimator	30	30	30
4	Inventory Turnover Estimator	45	45	45
5	Pilot Cash Flow	0	0	0
6	Pilot Cash Balance	($15,962)	($10,387)	($11,171)
7		$20,608	$22,297	$11,126
8	FYI only: Handling Accounts Receivable			
9	Previous Accounts Receivable Balance			
10	Sales on Credit	$0	$0	$1,039
11	Cash from receivables	$0	$1,039	$1,036
12	Pilot Accounts Receivable Balance	$0	$0	$2,75
13		$0	$1,039	$2,150
14	FYI only: Handling Accounts Payable			
15	Previous Accounts Payable Balance			
16	New Accounts Payable	$2,000	$4,309	$18,719
17	Payments on Accounts Payable	$3,308	$17,223	$19,041
18	Pilot Accounts Payable Balance	$1,301	$3,093	$10,681
19		$4,309	$18,719	$27,078
20	FYI only: Inventory			
21	Previous Inventory Balance			
22	Inventory Used this Period	$900	$900	$9,446
23	Remaining Inventory	$0	$4,722	$8,360
24	Desired Ending Inventory Balance	$900	($4,222)	$1,185
25	Inventory Purchased this Period	$0	$9,446	$16,880
26	Pilot Inventory Balance	$0	$14,667	$18,226
27	Pilot Inventory Purchase	$900	$9,446	$16,880
28		$0	$13,667	$19,326
29	FYI only: Payables Details			
30	Payments on this Period's Payables			
31	Payments from Initial Balance	$0	$0	$0
32	Payments on Previous Balance	$0	$0	$0
		$1,301	$3,093	$10,681

The Cash Pilot table doesn't normally print as part of the plan. It explains detailed assumptions behind the Cash Pilot. Access it using the Views menu Tables command.

Weak Points in the Math and Formulas

There are some weak points in the way BUSINESS PLAN PRO calculates these balances. These are the reasons that you might decide to override the formulas and type in your own.

- At several points the estimators must assume that any month's value is a good approximation of every month's value. The ratios used as calculators are based on annual results, but the calculations come from monthly results. So, for example, the inventory turnover calculations assume your monthly cost of sales is 1/12 of annual cost of sales.
- Estimators will rarely match calculated ratio values in the Ratios table. Ratios are calculated after the fact, based on annual numbers. The estimators have a different use and different purpose.

Investment Analysis (PREMIER version)

The Investment Analysis table gives you discounted cash flow analysis including Net Present Value (NPV) and Internal Rate of Return (IRR). Both of these are important financial analysis tools that will help a plan present itself in the terms used by the more sophisticated investment analysts. Figure 6-46 shows a sample Investment Analysis.

FIGURE 6-46: INVESTMENT ANALYSIS

N10 =IF(PS_StandardTerm=TRUE,NPV(N14,N8:Q8),NPV(N14,N8:S8))

	A	N	O	P	Q
3					
4	Initial Investment				
5	Investment	$70,000	$45,000	$100,000	$0
6	Dividends	$0	$0	$0	$0
7	Ending Valuation	$0	$0	$0	$385,000
8	Combination as Income Stream	($70,000)	($45,000)	($100,000)	$385,000
9	Percent Equity Acquired	50%			
10	Net Present Value (NPV)	$87,002			
11	Internal Rate of Return (IRR)	34%			
12					
13	Assumptions				
14	Discount Rate	10.00%			
15	Valuation Earnings Multiple		10	10	10
16	Valuation Sales Multiple		1	1	1
17					
18	Investment (calculated)	$70,000	$45,000	$100,000	$0
19	Dividends		$0	$0	$0
20	Calculated Earnings-based Valuation		$0	$280,000	$520,000
21	Calculated Sales-based Valuation		$280,000	$710,000	$770,000
22	Calculated Average Valuation		$140,000	$495,000	$645,000

The Investment Analysis offers discounted cash flow analyses and a rough estimate of Valuation.

The Estimated Cash Stream

The Investment Analysis starts with the Cash Flow stated in investment terms. That means that an investment is a negative number, and the return is a positive number. In the example, $500,000 is invested at the start of the plan. No money comes out until the fifth year, when the company is valued at $35.6 million.

This example is typical of formal investment analysis. Sales, Profits, Expenses, Assets, and Liabilities are not included in the analysis. The analysis even ignores Cash Flow in this case, because Cash Flow is irrelevant unless it becomes a Dividend.

The example treats the company from the investor's point of view. Namely, there is only one flow into the company that matters, the investment. There are only two flows back out as returns,

Dividends and Equity Valuation. Equity Valuation really matters only when the investor cashes out. Until equity is sold, valuation is just paper money only, not real.

BUSINESS PLAN PRO creates the cash stream automatically, from the assumptions in your plan. Its formulas pick up on investments and dividend payments during the term of the plan.

TIPS

Buzzwords and Jargon

The NPV and IRR buzzwords are classic examples of MBA jargon. They aren't hard to understand or use, so it's worth the effort. Try an Internet search on "IRR" or "NPV" and see how much you find.

The Discount Rate

The Discount Rate is an important element in Discounted Cash Flow analysis. The discount rate is a mathematical estimate of the time value of money and to some extent the risk in an investment.

To understand the discount rate, imagine that somebody offers you the choice between $1,000 delivered today or some greater amount delivered one year from today. Think about how you and other people react to that choice.

There's an old cliché that says a bird in the hand is worth more than two in the bush. That thought is related. Almost everybody has a preference for now instead of later. Everybody values $1,000 now more than the same amount a year later.

Would you prefer $1,000 now to $1,100 a year from now? What about $1,200 next year? $2,000? $5,000? People differ in their choices between money now, but just about everybody has some amount of additional money that would make them choose to wait. In investment analysis, we use the discount rate to reflect that preference for now over later.

In the example, the Discount Rate is set at 25%. That means $1,000 today is worth approximately $1,250 one year from today. A 10% discount rate would make $1,000 today worth approximately $1,100 a year from today. A 50% discount rate would make it worth $1,500.

Inflation matters to discount rates. The higher the inflation, the higher the discount rate. In an economy with 10% inflation, it takes $1,100 a year from now to equal the value of $1,000 today.

Risk matters. The higher the risk, the higher the discount rate. The bird in hand is worth more than two in the bush because you might never get the two in the bush.

In the trade-off analysis above, choosing between $1,000 today and $1,250 a year from now, how different do you feel if the promise to pay later comes from a bank, or from an unreliable ne'er-do-well acquaintance? The example sets a Discount Rate of 25%. You type that rate into your business plan as an assumption.

Net Present Value (NPV)

The NPV of an investment stream is the estimated present value of the future stream, at the specified discount rate. Future cash is discounted to its present value.

The formula for NPV in the sample table, Figure 6-46, uses a built-in BUSINESS PLAN PRO function. The formula in that cell is:

=IF(PS_StandardTerm=TRUE,NPV(N13,N8:S8),NPV(N13,N8:Q8))

The formula applies the NPV function to either the three-year or the five-year cash stream, depending on whether the EasyPlan Wizard setting is for a standard term or a long-term plan.

This analysis depends of course on the assumed valuation for the end of the period. The Valuation assumption is a critical assumption. BUSINESS PLAN PRO makes a rough estimate based on simplistic assumptions. Use it with caution, and understand how much it depends on those questionable assumptions (more on Valuation below).

The Internal Rate of Return (IRR)

The IRR is the Discount Rate at which the NPV of the Investment is $0. You can experiment with the Investment Analysis included with BUSINESS PLAN PRO. Set the Discount Rate to the rate shown as IRR, and NPV should be $0.

Analysts use IRR to compare different investments. They expect higher risk investments to show higher IRRs, and generally if the risk is about the same, then the best investment is the one with the higher IRR.

TIPS

Watch the Critical Assumptions

The investment analysis depends entirely on very sensitive critical assumptions: the cash stream depends on ending valuation, which is an extreme uncertainty. The discount rate makes a huge difference in Net Present Value. Experts learn quickly that they can make huge changes in NPV or IRR with small changes in critical assumptions.

Valuation Estimates

Valuation is what a company is worth, according to stock markets, or buyers and sellers of a business, or tax authorities. Businesses need to determine valuation for tax reasons when ownership changes hands. Ultimately, valuation isn't a formula at all, it is as simple as any other commercial transaction: the business is worth as much or as little as buyers will pay for it.

Take this calculated average as a rough estimate at best, subject to the assumptions. It is what we sometimes call a "talking point" in negotiations. Valuation means what the company is worth, what it should sell for if it is sold. Valuation in real business situations is very much more complex than a simple calculation in a spreadsheet.

Think of this the way you might think of the real estate value of a house or some other property. You can talk about it as a formula based on square footage, rooms, bedrooms, or lot size, but the formulas are just a beginning. The actual value depends, however, on many other factors including general economic conditions for the country, specific economic conditions in the local area, the specific neighborhood, neighboring houses, landscaping, sale price of nearby houses, and negotiation effectiveness of the interested parties.

Similarly, the valuation of a business depends not just on simple formulas and multiples, but also general market conditions, specific economics of the business, its location, its branding, its management team, its balance sheet, its customer base, and other factors.

For publicly traded companies, valuation is the same as their market capitalization: the business' valuation can be determined by multiplying the number of shares outstanding by the value per share.

For privately held companies, valuation of a business is theoretical until there is a transaction. When the transaction happens, the business is worth whatever the buyers pay for it. You and your business don't necessarily get what you deserve; you get what you negotiate; or what you settle for.

This is important: the valuation estimates in BUSINESS PLAN PRO are rough estimates only, good starting points for further discussion. Valuation is very much more complex than the simple formulas on this table. BUSINESS PLAN PRO gives you the earnings multiple and sales multiple formulas for valuation, which are the most common, but not the only formulas.

- The Book Value formula calculates valuation as Assets less Liabilities, just the same as Net Worth. That's supposedly what a business is worth.
- The Liquidation Value formula says the business is worth the liquidation value of its Assets, less Liabilities.
- The Replacement Value formula says the business is worth what it costs to replace it. This comes up for example when a business is purchased by a larger business for the value of its plant, equipment, product line, brand, etc.
- The Times Sales formula is one of two common formulas used for the BUSINESS PLAN PRO estimate. In the example, the business is worth the Sales Multiple shown in Figure 6-46 as the Calculated Sales-based Valuation. The Valuation Sales Multiple is 1, so the Valuation at the end of the period is $528,000, which is 1 times sales of $528,000.
- The Times Earnings formula is the other of the two most common. Stocks are often quoted in earnings multiples, called PE for "price times earnings" as in 25 times earnings. Earnings in this context is the same as Net Profits, and BUSINESS PLAN PRO picks this up automatically. The stock's PE ratio is normally quoted as price per share as a multiple of earnings per share. The principal is the same. In the example shown in Figure 6-46, the Earnings Multiple is set as 10, so the Valuation in the last year is $520,000

- Market comparisons (as in real estate) are another very important tool for valuation. Analysts look at actual transactions of similar businesses of similar size.

As we said above, the valuation estimates in BUSINESS PLAN PRO are rough estimates at best.

Percent Equity Acquired

This row takes your data assumptions input, and gives you a way to confine the investment analysis to some specified portion of equity investment and equity ownership. In this case, the pizza example, the assumption is that the investor ends up with 50% ownership of the pizza restaurant, as shown in the illustration.

TIPS

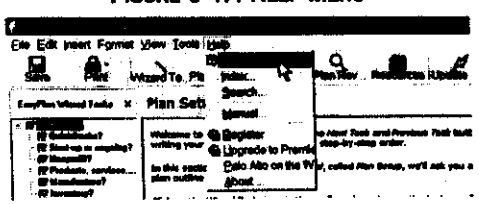
Spreadsheet Programming

More detailed instructions on programming the BUSINESS PLAN PRO spreadsheets can be found in Chapter 10, Advanced Tables, including details and examples on how to program spreadsheet formulas, programming to link tables, and many other expert features.

Main Help for General How-to-Use Information

Use the Main Help for more information on how to use the software. That's the Help facility on your main menu tool bar, as shown here.

FIGURE 6-47: HELP MENU



The BUSINESS PLAN PRO *Help Menu gives you access to several sources of user information.*

This includes information on menus, dialogs, forms, features and functionality. Main Help starts with the Help Menu within BUSINESS PLAN PRO. Look in the Table of Contents for "Table Mode" to start with Help on tables. Or, as an alternative, just press the F1 key at any time while using BUSINESS PLAN PRO. You can also search in the Help Index for "Tables," "Table Mode," "Table Options," "Table functions," "Add Tables," "Table Formatting," and of course any menu command in the Table Mode Edit menu, or in the Table Mode Format menu. The table on the next page has some additional details on specific topics in Help.

?

To Learn More About...	Search the Help Index for...
Adding tables (PREMIER version)	Add table
Changing row labels, row names	Row labels, row names
Dealing with locked first column, options for locking and unlocking	Table options, lock column headings
Dealing with row headers on top of the columns	Starting date, table options, lock row headings
Deleting rows	Delete row
Deleting tables ... taking them out of your outline so they won't print	Delete table, unlink table, link table
Exporting to Excel	Table export, Excel export
Finding detailed row-by-row help	Row-by-row help
General table mode instructions, including how to use the menus, toolbars, etc.	Table mode, table menu, table toolbar
How to break links with topics, so certain tables won't print	Unlink table, Link table
How to hide rows so they won't show in printed documents	Hide row, Show row
Inserting new rows	Insert row
Inserting tables into your outline	Link table, add table
Inserting tables from Excel, paste from Excel, import from Excel	Add table, Excel paste, Excel worksheets, paste from Excel
Linking data and assumprions from one table to another	Link tables
Linking tables to topics in the outline, or unlinking them	Link tables, unlink tables
Printing tables	Printing tables, table options, table formatting, print table
Programmi g spreadsheet formulas	Spreadsheet overview
Setting column headings	Starting date
Setting fonts and formats for tables, including all cells or just data entry cells, automatically	Table options, table formatting, default table font, default data entry font
Using the Formula Backstep feature	Formula Backstep
Wizard instructions and examples	Wizard instructions

Your Plan Charts

7

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Make it Your Plan 7.15

CHAPTER 7: YOUR PLAN CHARTS

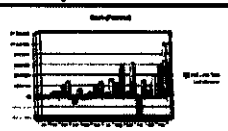
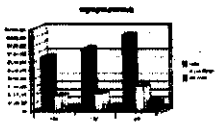
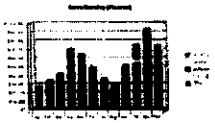
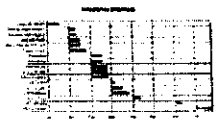
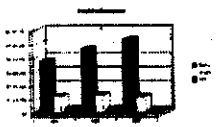
In business plans, the more numbers you include, the more charts you need. Charts can illustrate numbers in ways that make immediate visual impact. Given today's technology, you should have the courtesy to illustrate your more important numbers with business charts. This makes it easier for your reader.

BUSINESS PLAN PRO® *includes built-in charts that automatically illustrate the most important numbers in your plan.*

Charts vs. Tables

Charts are graphics. Tables are financial numbers displayed in rows and columns. We mention this because in BUSINESS PLAN PRO® tables and charts are distinct and separate objects. Figure 7-1 shows a few of the main charts that automatically link to topics in a standard plan.

FIGURE 7-1: MAIN BUSINESS PLAN PRO® CHARTS

Table	Description	Example
Cash	Columns show cash balance and cash flow for next 12 months.	
Highlights	Columns show sales, gross margin, and earnings by year.	
Sales Monthly	Columns show sales for each of the first 12 months.	
Milestones	Track each milestone by start and end dates, budget, and manager.	
Market	Pie shows potential customers in different market segments.	
Past Performance (or Start-up)	Columns show highlights of past results for ongoing companies, or start-up balance for start-ups.	

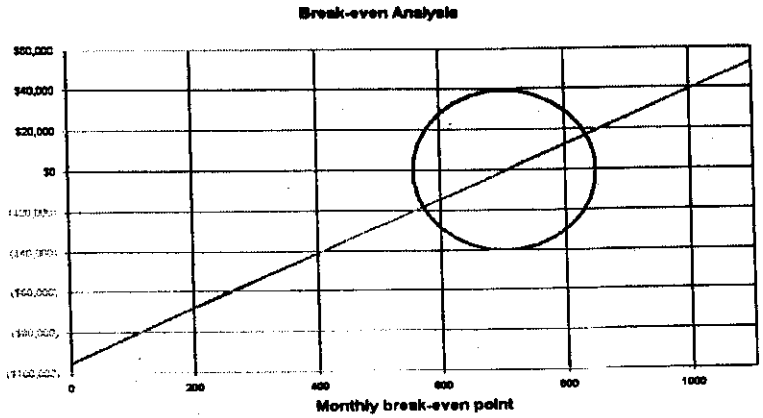
BUSINESS PLAN PRO *includes more than a dozen pre-programmed charts that illustrate your tables.*

Charts Always Link to Predefined Tables

BUSINESS PLAN PRO is designed to build business charts automatically, link them to specific numbers, and place them where they belong in your plan document. Because these charts link directly to certain key numbers in the tables, the information shown in the charts is a correct interpretation of the source numbers in your plan.

Figure 7-2 shows an example. The break-even point (circled on the chart) is taken directly from the "Monthly Units Break-even" row shown in the Break-even Analysis table.

FIGURE 7-2: CHARTS LINKED TO TABLE NUMBERS



	A	O
1	**Break-even Analysis:**	
2	**Monthly Units Break-even**	708
3	**Monthly Sales Break-even**	$334,437
4		
5	**Assumptions:**	
6	**Average Per-Unit Revenue**	$471.65
7	**Average Per-Unit Variable Cost**	$336.91
8	**Estimated Monthly Fixed Cost**	$95,542

As you type in your table numbers, you automatically create your charts.

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Use the Tables to Change Numbers in your Charts

The only way you can change any number shown in any chart is by changing the number in the source table. You cannot change the way charts link to specific numbers in your tables.

Modify Chart Appearance

You can change a chart's appearance, placement, or even whether or not it shows up. As you build your business plan, you can change the colors, design, fonts, titles, and even types of charts, but you can't design new and different charts in BUSINESS PLAN PRO. Its built-in chart modification features are for the pre-programmed charts only.

Link Charts, Unlink Charts

Certain charts are automatically linked to their corresponding topics. You can link other charts to topics as you want and need, including charts created outside of BUSINESS PLAN PRO. Also, you can unlink a chart from its topic. Unlinking a chart does not delete it from your file; it just won't be printed in the plan.

Import Charts

You can import graphics from other software and link them to a topic in your plan, but you can't design new and different charts in BUSINESS PLAN PRO.

Other Charts in Plan Outline (PREMIER version)

BUSINESS PLAN PRO PREMIER provides additional charts for actual tables and variance tables. These charts are listed at the bottom of the Plan Outline screen. Chapter 9: Planning for Implementation, gives more information on the plan vs. actual comparison and variance.

?

To Learn More About...	Search the Help Index for...
Chart styles, formatting and how to change appearance	Chart Wizard, Chart Designer, Chart Mode
Import a chart from another program	Import Chart
Add a graphic to a topic	Add Graphic, Import
Unlink charts	Unlink, Plan Outline
Plan vs. actual	Actual, Variance, Other tables and charts

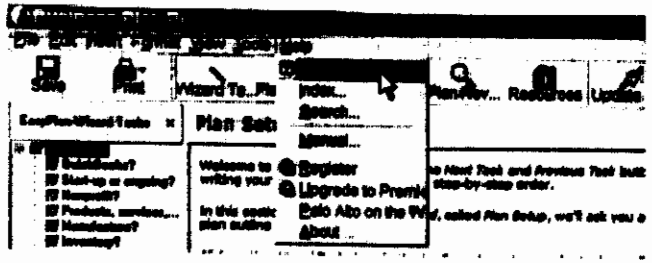
Help on How to Use the Charts

This chapter gives an overview of the charts included in BUSINESS PLAN PRO. Instructions, examples and online Help are provided within the software to explain the mechanics of working with your charts. The following describes how to access these help resources in BUSINESS PLAN PRO.

Main Help for General How-to-Use Information

Use the main Help for more information on how to use the software. That's the Help facility on your main menu, as shown here.

FIGURE 7-3: HELP MENU



The main Help menu provides several information sources on using BUSINESS PLAN PRO.

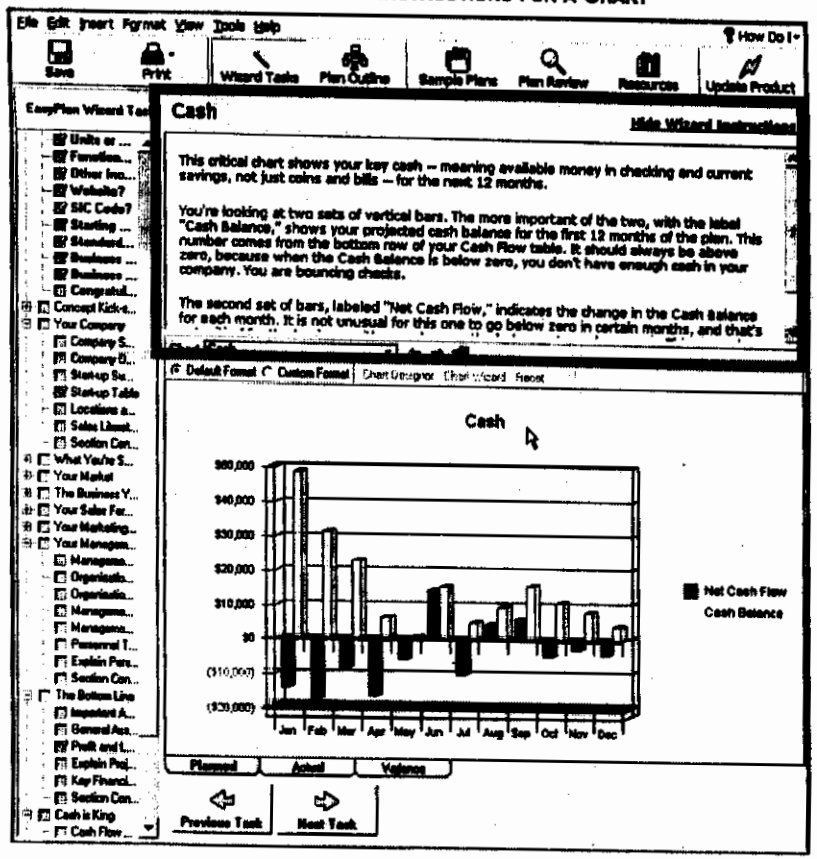
You can also access Help on charts as follows:

- Look in the Help file Table of Contents for "Chart Mode."
- Press F1 key while looking at a chart to open chart-specific help.
- Search the Help Index for "charts," "chart mode," "chart options," and "customizing chart."

Wizard Instructions and Examples

Chart-by-chart instructions are included in the EasyPlan Wizard® instructions window. Figure 7-4 shows an example of the instructions window for the Cash chart.

FIGURE 7-4: WIZARD INSTRUCTIONS FOR A CHART



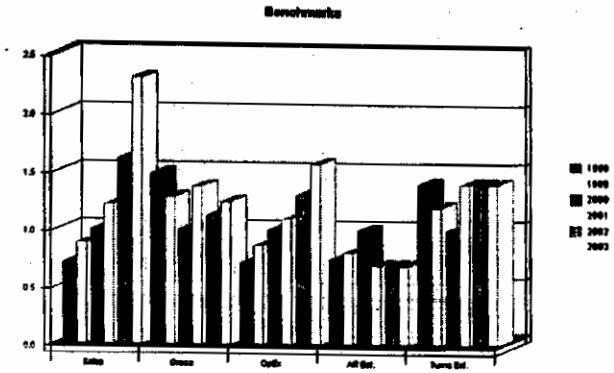
The BUSINESS PLAN PRO *EasyPlan Wizard includes instructions (highlighted in the illustration) for every chart. This is your main source for information about each chart.*

Additional Chart Details

Understanding the Benchmarks Chart (PREMIER version)

Plans that select "more detail" in the Plan Setup section of the PREMIER version EasyPlan Wizard will have the option of including a Benchmarks chart with their plan. The Benchmarks chart shows comparative or relative values for five critical business financial indicators: Sales, Gross Margin, Operating Expenses, Inventory Turnover, and Collection Days. Figure 7-5 shows an example.

FIGURE 7-5: BENCHMARKS FOR ONGOING COMPANIES



In the BUSINESS PLAN PRO PREMIER *version, the Benchmarks chart compares past and future financial indicators as index values, showing the amount of change in each one. The illustration shows Benchmarks for an Ongoing company, which has data for six years.*

The Benchmarks chart uses index values to compare different numbers. Specifically, Sales and Operating Expenses are measured in currency value (usually dollars), while Gross Margin is a percent, Collection Days (the chart calls it AR) are measured in days, and Inventory Turnover is measured as a number.

The index values compare changes in the numbers, as relative values. The last full year, the last column in Past Performance, is always set to 1, and the other years, past and future, are shown as values relative to 1. The bars show relative change, not absolute values.

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In the example shown, Sales in 2000 were $5.3 million. Sales for 1998 were $3.8 million, so the red bar in the chart shows up as less than 1, about 70%. Actually, 3.8/5.3 = .72, which is about what the red bar shows. The light blue bar in Sales for the year 2003 is clearly between 2, and 3, so Sales for that year are more than double the $5.3 million from 2000. In the sample plan, the estimate is $12.2 million for 2003, which is 2.3 times $5.3 million.

Then take Gross Margin, which is expressed as percent. In the sample plan, the Gross Margin for 2000 was 21.3%. The chart shows the decline from 31.4% in 1998 (displayed as about 1.5 times the index value of 1 for 2000, and then the projected increase back to 29% in 2001, 24% in 2002, and 26% in 2003. You can see the chart showing relative values. Sales are in millions of dollars, and Gross Margin in percentages, but we can compare the relative level of change for both factors over time.

Benchmarks Chart is Customized in PREMIER to Match Plan Options

The Benchmarks chart displays differently for different EasyPlan Wizard Plan Setups. Figure 7-5 shows how the Benchmarks chart for an ongoing company includes at least six years' of data. Figure 7-6 shows how the Benchmarks for a start-up company has as few as three years, because it doesn't have past history to compare. Setting your plan for five vs. three years also has an affect. The Benchmarks shows bars for Accounts Receivable only if your Plan Setup includes Accounts Receivable, and it shows bars for Inventory only if your Plan Setup includes Inventory.

Some Numbers Won't Work with Benchmarks

Because of its dependence on index values, the Benchmarks chart can become useless with unusual sets of numbers. Here are some examples of good numbers that simply don't display well in the Benchmarks chart:

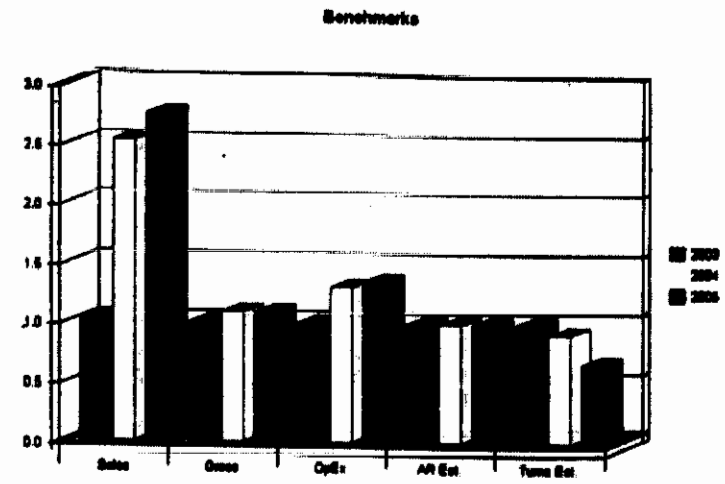
- Business plans whose numbers switch in value, such as from negative to positive. If your Gross Margin is negative for the index year, then the Benchmarks chart simply won't display any useful information. It will show the negative year as 1, and the positive years as negative. That may be annoying, but it's also unavoidable: BUSINESS PLAN PRO® needs to work with index values to compare these factors, and index values behave this way when the index number is negative.
- Business plans that involve huge changes in any one of the five factors probably won't show good benchmarks indicators for the other values. For example, your Sales in the index year is $10,000, but Sales soar to $2 million in the first year, $10 million in the second, and $25 million in the third year. The chart in this case will show a year 3 value of 2,500, because $25 million is 2,500 times greater than $10,000. With one of the benchmark values showing a maximum of 2,500, the others probably won't show at all.

Unlink Benchmarks Chart When It Doesn't Work

If the Benchmarks chart doesn't work for you, don't use it. And don't worry about not using it. Find the text topic linked to the Benchmarks chart and unlink that chart so it won't print.

You can also delete the entire topic if you want. Normally BUSINESS PLAN PRO PREMIER version links the Benchmarks chart to the Key Financial Indicators topic.

FIGURE 7-6: BENCHMARKS FOR START-UP COMPANIES



The Benchmarks chart for the Start-up company has fewer years, because there is no past history to compare.

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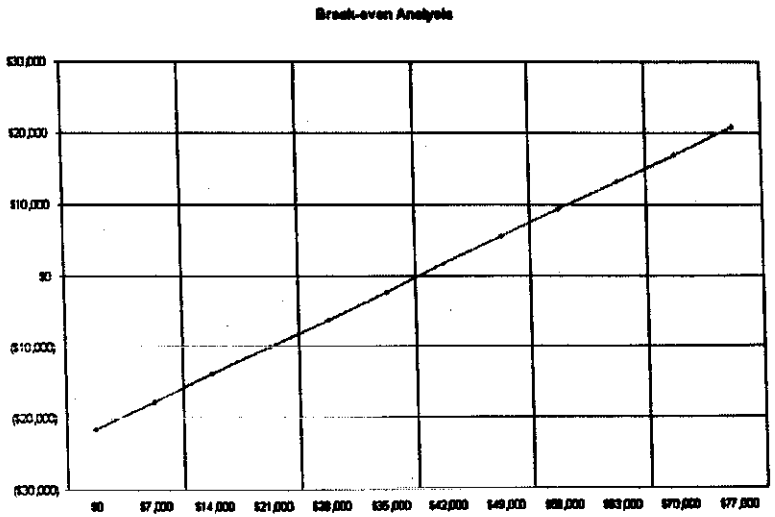
The Break-even Chart

The Break-even chart, shown in Figure 7-7, is a business plan staple, but can also present problems in some cases. By default, BUSINESS PLAN PRO gets break-even numbers from the Sales Forecast and Profit and Loss tables, but the numbers in break-even are not used by any other charts and tables, so you can also input your own assumptions to see the resulting chart. Unfortunately the break-even depends on averaging inputs over your whole business, which makes it less useful for some businesses that have very diverse product lines.

FIGURE 7-7: BREAK-EVEN CHART

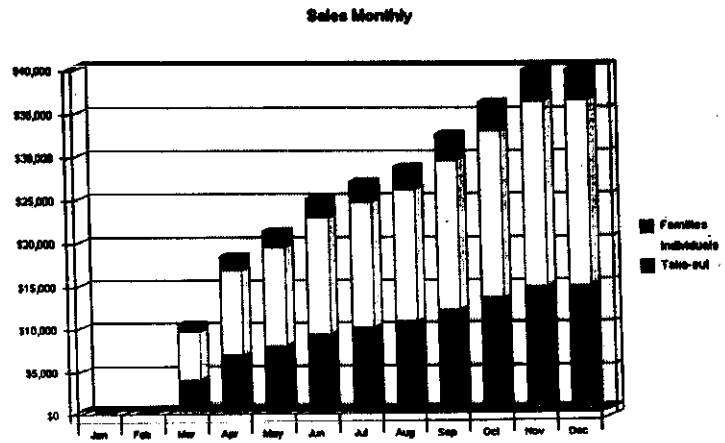


The break-even chart shows how sales affect profits, given some general assumptions for a hypothetical average month. It doesn't necessarily fit with all plans, so if it doesn't work for your plan, don't include it.

The Sales Monthly Chart

This chart is linked to your Sales Forecast table. Figure 7-8 shows an example of the sales for each row in a sample restaurant plan.

FIGURE 7-8: SALES MONTHLY CHART



This first chart of a series shows the monthly sales bar chart illustrating the hypothetical plan. This is the chart you'll use most often.

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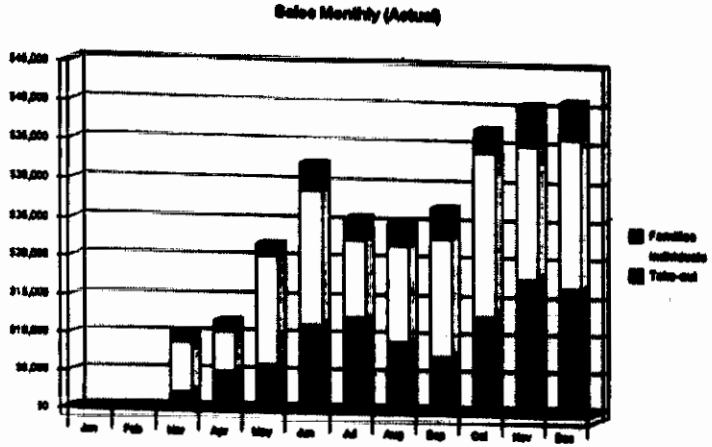
Charts for Actual and Variance Numbers (PREMIER version)

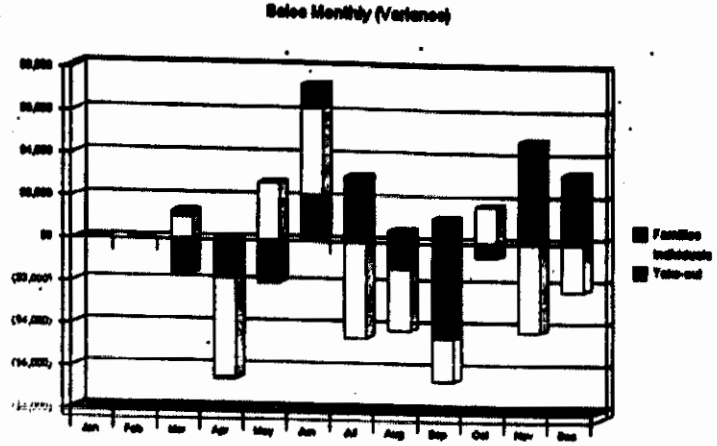
BUSINESS PLAN PRO PREMIER version includes additional sets of charts to illustrate Actual and Variance (Plan vs. Actual) numbers. These charts are similar to the standard, but show different numbers. In PREMIER version watch your chart instructions carefully for details on how the Actual and Variance charts differ from the main charts. The illustrations in Figures 7-8, 7-9, and 7-10 show how plan, actual, and variance can relate to each other, for the Sales Monthly Chart.

FIGURE 7-9: SALES MONTHLY ACTUAL CHART (PREMIER VERSION)



This second chart in the series shows hypothetical actual sales for the same 12 months as the previous chart. The previous shows planned sales, this one shows actual sales.

FIGURE 7-10: SALES MONTHLY VARIANCE CHART (PREMIER VERSION)

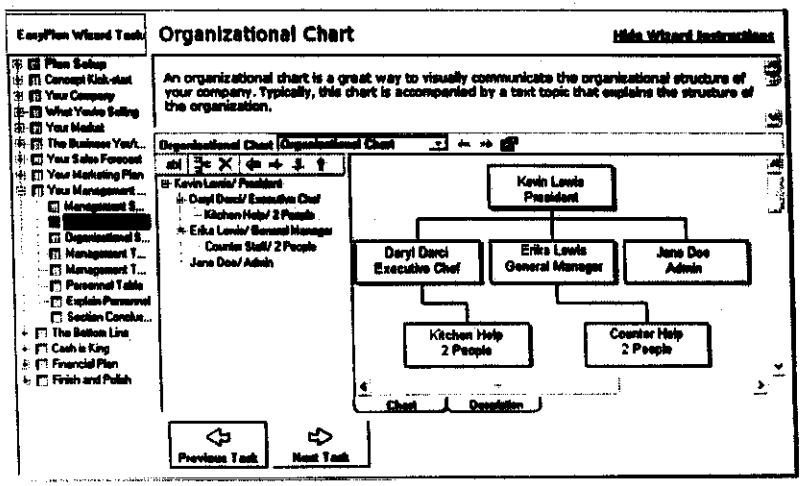


The Variance chart, in this example, shows not planned or actual sales, but the difference between plan and actual.

The Organizational Chart (PREMIER version)

The organizational chart normally links to the topic named "Organizational Structure." If you don't want to use it you can ignore it, and unlink the chart from the topic, so it won't print.

Figure 7-11: Organizational Chart



Use this chart feature in the PREMIER *version to include an organizational chart as part of your chapter on management.*

For more detailed help on working with this built-in chart, search the Help Index for "Organization chart."

Make it Your Plan

Remember, nothing about BUSINESS PLAN PRO is written in stone...you can modify charts' appearance, ignore the built-in charts, or make your own charts with other software and import them into your plan...it's your plan.

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Print and Publish

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Printing Tables 8.12
Printing Charts 8.13
Print to Kinko's 8.14
Export 8.15
The PowerPoint® Presentation 8.18
Web Options as Output 8.20

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Acrobat® is a registered trademark of Adobe Systems Inc.

CHAPTER 8: PRINT AND PUBLISH

Distributing your plan to the appropriate people and in the appropriate format can be critical to the success of your business plan or, more importantly, your business. BUSINESS PLAN PRO® *provides you with numerous options for printing your plan, or parts of your plan, and the tools to distribute it.*

BUSINESS PLAN PRO® *is also capable of printing additional documents like the Concept Kick-start, the Loan Document, and the Summary Memo.*

And if you're looking to publish electronically as well, there's www.secureplan.com.

Overview - Form Follows Function

BUSINESS PLAN PRO is designed to print a good-looking plan including cover page, legal page, table of contents, and appendices. The printing is automatic and so is the formatting. You can manage options with the Print Options form. If you're printing to a color printer, the plan will include color graphics.

The standard format is professional. You could do more with a lot more effort—page layout, extensive graphics, etc.—but you certainly don't have to. We've seen the standard format do fine with investors, bankers, and even at graduate-level business plan contests. No serious business plan evaluation process is going to reject a plan developed and printed in BUSINESS PLAN PRO for formatting or print related problems.

You do have other options. You can also post your finished plan to a website, either your own site or the password-protected secure site at www.secureplan.com. And you can save your plan as an Adobe Acrobat electronic document, or a Microsoft Word document, or RTF, or plain text for emailing. This chapter looks at output options, including the process of printing, and also a review of related business plan documents and tools, such as the presentation and the summary memo.

The form and output of your business plan should match its business purpose. Every document deserves the basic respect of grammar, spelling, and basic editing. A business plan submitted to a Venture Capital firm, however, should have a better presentation than what you'd normally expect for an internal plan developed for in-house use only. Plans used for venture contests generally require more formality, and perhaps more flair, than plans used internally. Banks care less about flair and more about collateral.

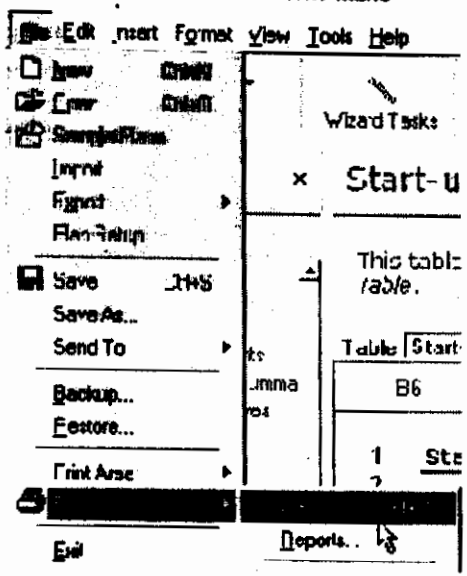
Some companies put a great deal of attention into the presentation and formatting of even internal plans. For example, we were involved in a three-year business plan for Apple Japan in the early 1990s that ended with a professionally-designed annual plan logo and hundreds of copies of the plan printed with a full-color cover. On the other hand, we've also seen some entrepreneurial business plans that were so full of fancy graphics and color illustrations that they made investors nervous. In this context too, form should follow function. The plan is a business document.

The presentation of the plan document, including such variables as covers, coil binding, and quality of paper, depend mainly on your own good judgment. BUSINESS PLAN PRO does include special arrangements with Kinko's Copies duplication and print shops, which can produce plans with covers, binding, and color copying. There is also a growing trend for plans online at www.secureplan.com, a secure and password-protected site. Joe Tanous, a venture capitalist, told us his firm "doesn't accept business plans on paper anymore." He said that stance was not unusual, and becoming more common.

Printing Your Plan

BUSINESS PLAN PRO is designed to format and print a business plan as easily as possible, using the Print commands from your File menu, as shown in Figure 8-1.

FIGURE 8-1: FILE > PRINT MENU



The Print Menu sub-menu options, which will be discussed in more detail in the following section of this chapter.

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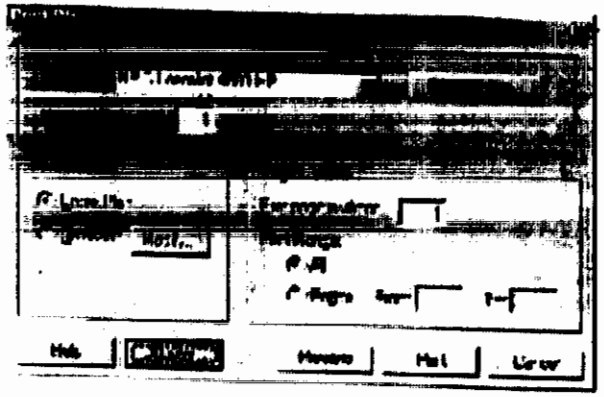
Print Dialog

The print dialog box shown in Figure 8-2 displays when you choose the File > Print command.

FIGURE 8-2: PRINT DIALOG



The Print Dialog box lets you specify what you wish to print. The default setting will print the entire plan with all linked tables and charts.

If you are printing your entire plan, you can accept the default settings.

- If you wish to print only specific pages, adjust the settings in the Print Range portion.
- If you wish to print only certain topics, choose the Print What > Selection button. It will display an outline list in which you use the check boxes to select the sections to print (described in the following section of this chapter).
- If you wish to print supporting pages with your plan (Cover Page, Table of Contents, table appendices, etc.), click on the Options button (described later in this chapter).

Tips

Select Topics Before You Print

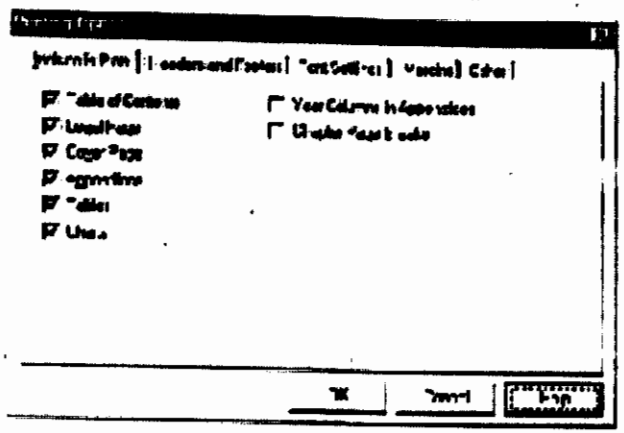
There are lots of reasons to print just selected topics: you might want just a company summary, or the sales and marketing topics and tables, or maybe just the topics that have monthly financials printed in the appendices.

Use Print > Print What option to select topics rather than printing the whole plan.

Print Options Dialog

From within the main Print dialog, the Options button lets you be even more specific as to the portions of your plan you wish to print. Figure 8-3 shows the Print Options form.

FIGURE 8-3: PRINT OPTIONS FORM



Use the Print Options form to select portions of your plan to print. The default setting to is print all selections.

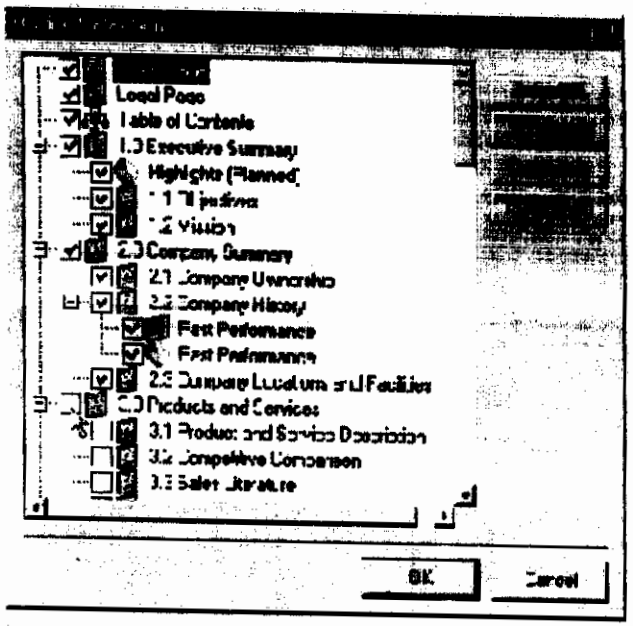
This form also contains tabbed sections that let you:

- Customize header and footer information to print at the top and bottom of each page of your printed plan.
- Adjust the font style/font size settings for your printed document.
- Adjust the margin settings to print.
- Choose to print charts in black and white (Other).

Printing Selected Topics Only

If you wish to print only selected topics, the Selection setting in the Print dialog will display the full topic outline and all linked tables and charts. Mark the topic(s) to print. Figure 8-4 shows the Selection dialog.

FIGURE 8-4: SELECT TOPICS TO PRINT



Scroll through the topic outline and mark the topic(s) you wish to print.

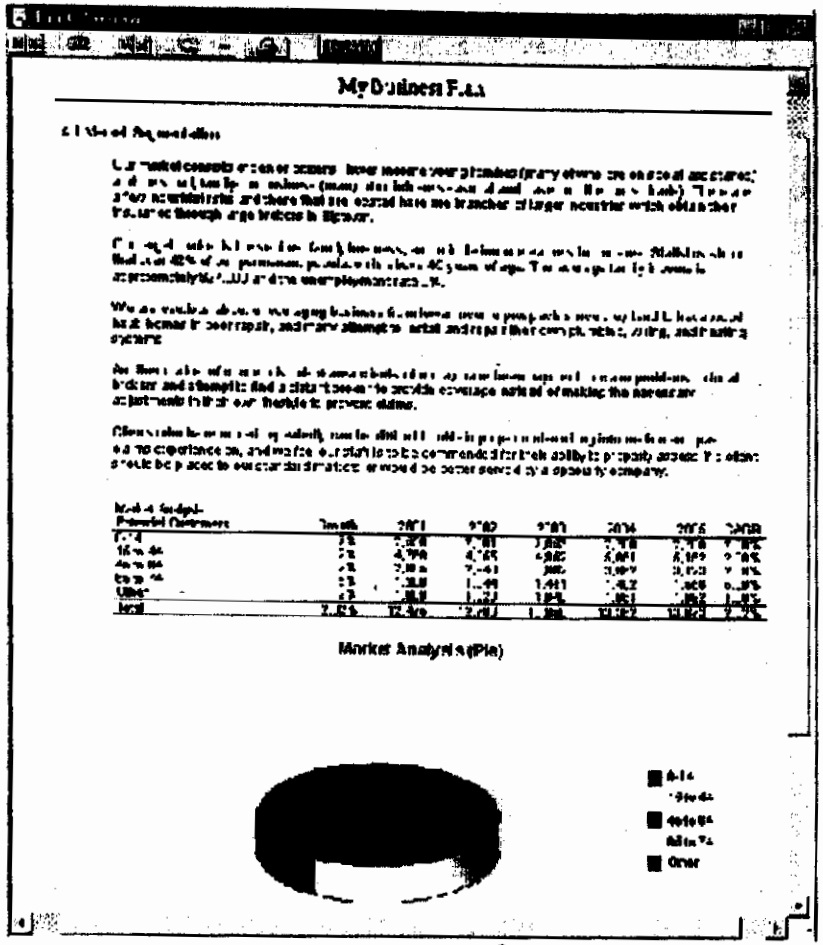
How to Select Topics to Print

- **Select All** = All topics and linked tables/charts.
- **Unselect All** = No items selected to print.
- **Expand All** = Displays all levels of the outline.
- **Collapse All** = Shows only the highest level topics in outline.

Print Preview

Before you print your plan, it's a good idea to look at it first on the screen and confirm that it contains all the sections you want and that the page formatting is correct. The Print Preview option lets you do this. Figure 8-5 shows an example of the Print Preview screen.

FIGURE 8-5: PRINT PREVIEW SCREEN



The print preview shows you what the printed plan will look like.

Print Menu

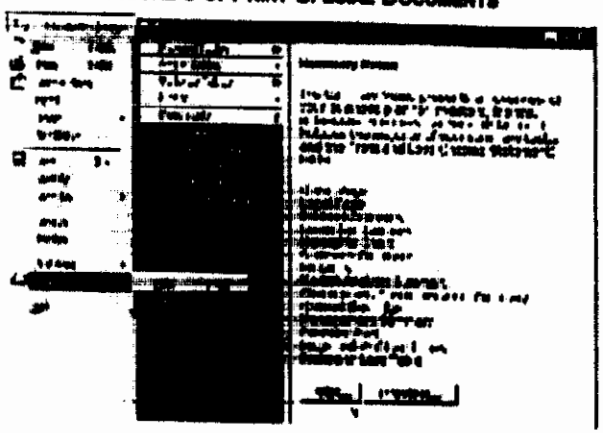
One of the greatest strengths of BUSINESS PLAN PRO is its ability to print a beautiful business plan complete with table of contents, legal page, cover page, tables, charts, and appendices.

Select File > Print command to print your business plan. From there you can also access a complete range of print options.

Print Document - Options

Different types of planning documents can be printed. They are pre-formatted to include specific plan information for different needs. The following describes them in detail. Figure 8-6 shows the Print sub-menu options.

Figure 8-6: Print Special Documents



Choose the print option that best meets your current needs.

Plan

This menu will open a dialog box to print some or all of your business plan. You can specify topics, linked tables and charts, cover pages, etc. The default setting is to print the entire plan file, including cover page, table of contents, legal page, and monthly table appendices.

Reports

BUSINESS PLAN PRO is already programmed to select certain topics and print those selections conveniently, as specialized plan documents. The contents of each report are listed below. Each report also includes a Cover Page, Legal Page and Table of Contents.

Summary Memo

The Summary Memo presents an overview of your business plan for investors, friends, colleagues, business partners, or family. It includes the majority of your summary topics and the Profit and Loss (Income Statement) table.

- Executive Summary
- Highlights (chart)
- Company Summary
- Products
- Market Analysis Summary
- Strategy and Implementation Summary
- Competitive Edge
- Management Summary
- Financial Plan
- Projected Profit and Loss (topic and table)

Loan Document

The Loan Document is more financially oriented than the Summary Memo document, and it's often presented to bankers or venture capitalists with an introductory cover letter. The Loan Document doesn't replace the business plan, it's just a summary. However, it is sometimes appreciated by the venture capitalist or banker.

- Executive Summary
- Highlights (chart)
- Company Ownership
- Financial Plan
- Projected Profit and Loss (topic and table)
- Projected Cash Flow (topic, table and chart)
- Projected Balance Sheet (topic and table)

Concept Kick-start

The Concept Kick-start presents a brief overview of your business concept. It's a great document to pass on to close colleagues, friends, or family as a tool for communicating your basic business concept; however, we don't recommend distributing this document for funding purposes.

- Objectives
- Mission
- Break-even Analysis (topic, table and chart)

Product/Service Description

The Product/Service Description presents a brief overview of what you'll be selling. Again, like the Concept Kick-start, this is a great document to share with close colleagues, friends or family as a tool for communicating your basic business concept. It can sometimes help to share a document like this or the Concept Kick-start to see if there's a viable business idea there.

- Products/Services
- Product/Service Description
- Competitive Comparison
- Sourcing
- Technology
- Future Products

Mini Marketing Plan

The Mini Marketing Plan describes your overall marketing plan, strategy, tactics, and marketing programs. This is a great document to share with your marketing team. Most likely, your marketing team will use this document to prepare a full-length marketing plan to describe strategy, tactics, and marketing programs in further detail.

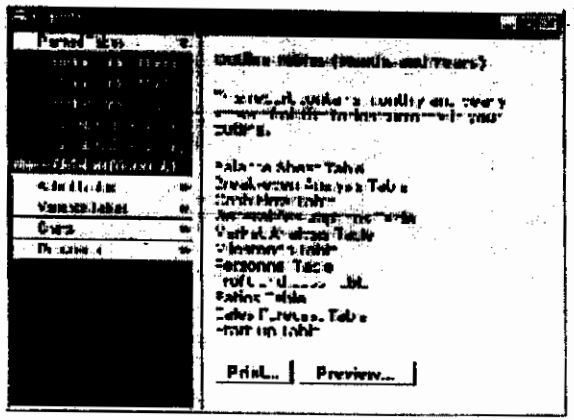
- Market Analysis Summary
- Market Segmentation
- Market Analysis (table and pie chart)
- Target Market Segment Strategy
- Market Needs
- Market Trends
- Market Growth
- Competitive Edge
- Marketing Strategy
- Positioning Statement
- Pricing Strategy
- Promotion Strategy
- Distribution Strategy
- Sales Strategy
- Sales Forecast (topic and table)
- Sales Monthly (chart)
- Sales by Year (chart)

The contents of these reports differs slightly in the PREMIER version, as it has more topics, tables and charts.

Printing Tables

The File > Print > Reports command lets you print tables. Figure 8-7 shows the Planned Tables list in the Print Reports dialog.

FIGURE 8-7: PRINT TABLES FROM REPORTS



You can print all plan tables using the Print > Reports form. This option gives you more control over table output.

The Print > Reports command also gives PREMIER version users the option to print the Actual and Variance tables.

TIPS

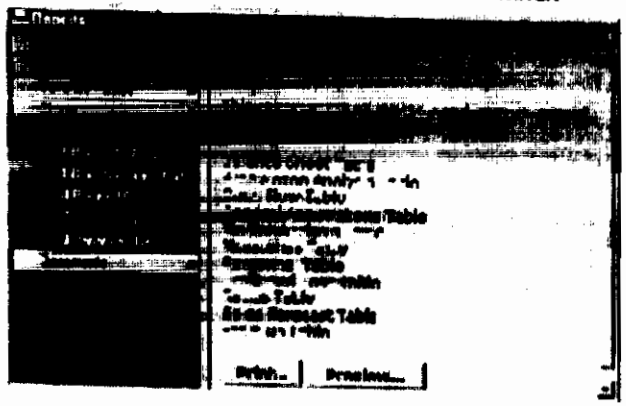
Print Tables Separately

To print the current table only, choose File > Print > Table Name. The table names will automatically display. Highlight the table name to print.

Printing Charts

The File > Print > Reports command includes the option to print charts. Figure 8-8 shows the charts list from the Print Reports dialog.

Figure 8-8: Print Charts from Report Writer



You can also print a single chart directly from chart mode, as a single graphic. This option gives you more control over chart output.

Tips

Print Charts Separately

Print the current chart by choosing File > Print > Chart Name. The chart name will automatically display from the menu. Highlight the chart name to print.

Print to Kinko's

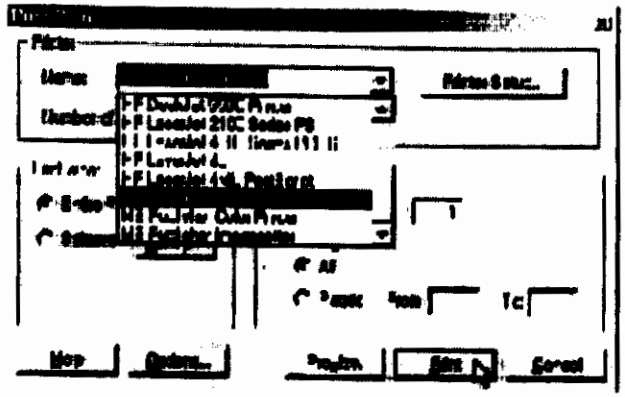
Business plan first impressions are important. A bad business plan won't receive funding if it looks good, but funding for a good business plan may be jeopardized by a poor first impression. Today, most people have a color printer, but is it a good color printer? Color charts look better if they're printed on a color laser printer. A business plan is also better presented if it's bound.

We've partnered with Kinko's to make it easy for you to have your plan printed, bound, and even shipped to your location of choice, or you can pick it up at your local Kinko's branch (available at select locations). Click Tools > Resources > Make it Happen > Present > Print to Kinko's for more information.

A tool called the Kinko's File Prep (KFP) was included when you installed BUSINESS PLAN PRO. This tool gives you the ability to print your business plan to what Kinko's calls the KFP format. Once your plan is in this format, you can send it to your local Kinko's by visiting www.kinkos.com. Kinko's is offering BUSINESS PLAN PRO customers an introductory discount on the first plan printed at Kinko's. Just use the promotion code included with your BUSINESS PLAN PRO installation when you pay for your print job on Kinkos.com.

To access the Kinko's KFP tool, print your plan as you normally would but select the KFP tool from the list of printers. Figure 8-9 shows this tool from the Print dialog.

Figure 8-9: Kinko's KFP

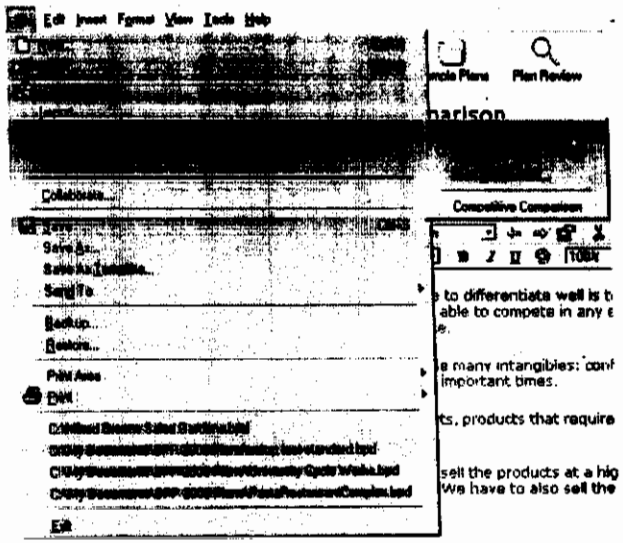


The Print dialog pull-down menu lets you choose the Kinko's File Prep (KFP) tool.

Export

The Export command is part of the File menu, as shown in Figure 8-10.

FIGURE 8-10: FILE > EXPORT MENU



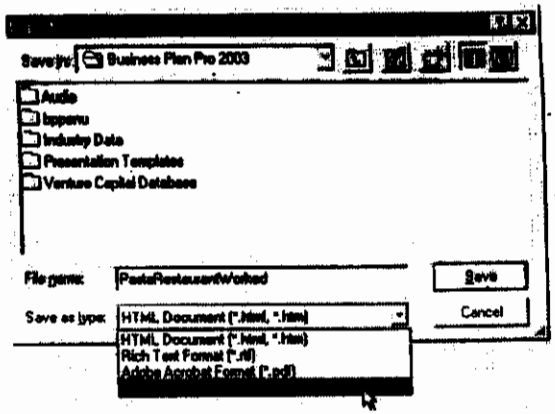
The Export command lets you save your plan file to several different formats for use with word processing or spreadsheet programs. The Plan Component command shown is a PREMIER version *feature (see Appendix C of this manual).*

The Export command saves a business plan in one of the following different formats:

1. Rich Text Format (.rtf) file.
2. Microsoft Word® (.doc) formatted file.
3. Hypertext Markup Language (.htm) pages for use on the World Wide Web.
4. Adobe Acrobat® Portable Document Format (.pdf).

The exported file can contain the entire text outline or the spreadsheet. Figure 8-11 shows the Export dialog.

FIGURE 8-11: EXPORT CHOICE DIALOG



The Export gives you four choices of file format.

- Use File > Export > and choose what you want to export.
- Choose which format to export from the Save as type pull-down menu.

  - If you export as .doc, you can open the file in Word and retain all of its text formatting, including tabs and indents.
  - If you export as .rtf, the file can be opened in any word processing program, and retains most of the original formatting, including font style, font size, bold, underline, and italic.
  - If you export as .txt, the file can be opened in any word processing program but no formatting will be saved.
  - If you export as .htm, individual html-coded pages will be created for each page of your plan.
  - If you export as .pdf, your plan can be read onscreen using the Acrobat Reader or your Internet Browser. The pages in the .pdf file will display the same as if they were printed. This is a read-only file.

Once you've selected a format, click the Save button on the dialog box.

TIPS

Directory for Exported Files...

Unless you specify otherwise, your exported file will be saved in the same directory as your BUSINESS PLAN PRO files.

Can you import back into BUSINESS PLAN PRO?

These are different formats from the original plan file (.bpd) and cannot be imported back into BUSINESS PLAN PRO. However, you can use the Windows clipboard to copy and paste text back into your business plan.

No Technical Support for Exported files

Our technical support facilities do not include help working with exported files or with modifying them using other software.

Exporting a Plan Component from PREMIER Version

BUSINESS PLAN PRO PREMIER version has an additional command, Plan Component, which allows the user to export all or part of the plan to another BUSINESS PLAN PRO user. See Appendix C of this manual for more information.

?

To Learn more about...	Search the Help Index for...
Export Plan Component-PREMIER version	Export, Import, Collaborate

The PowerPoint® Presentation

When a business plan is part of new financing, either debt financing or new investment, the process frequently involves a streamlined presentation. Investors expect it. Mainstream Venture Capitalists, Angel investors, and investment clubs normally consider new investments using a process that includes a presentation event. The entrepreneurs, key members of the management team, have some limited time to show the investors their business opportunity. Normally they do that using a slide presentation. These days, that most often means a PowerPoint® presentation using a projector connected to a computer.

TIPS

The Presentation

The business plan presentation is valuable for presenting a plan to investors. Although it is based on the plan, and describes the plan, it is a different medium and should be different from the plan.

BUSINESS PLAN PRO includes several PowerPoint templates for a standard business plan presentation. We partnered with PresentationPro, Inc. to deliver professional, graphically sharp presentation templates for your business plan. Click the Resources button > Make it Happen > Present > Presentation Templates for more information and access to these templates.

- Agree Template
- Big Cash Template
- Premiere Template
- Screens Template
- Target Template

While the details and specifics depend on you, your plan, and your audience, a standard business plan presentation will include about 7-20 slides covering some or all of the following (details on how to move information from the business plan to PowerPoint are in Chapter 13, Working with Microsoft Office®):

- Title slide. You can do "My Company Business Plan" or some other title.
- Highlights. The Highlights chart from BUSINESS PLAN PRO, displayed as large as possible, words to be added by the presenter, in person.
- The Market. The Market (pie) chart from BUSINESS PLAN PRO.
- The Market Need. Use bullet points from either the Mission or the Market Analysis text topics.
- Competitive Advantage. Use bullet points from this section in your plan's chapter on Strategy.
- Sales Forecast. Show the chart from BUSINESS PLAN PRO. Talk about the details.
- Management Team. Names and positions of the top people. Fill in the rest verbally.
- Financial Plan. Highlights only, in bullet points.

- Benchmarks. BUSINESS PLAN PRO PREMIER version's Benchmarks chart gives you good talking points.
- Break-even. The BUSINESS PLAN PRO chart, first year, important for discussion.
- First-year Cash. Just the chart, from BUSINESS PLAN PRO.
- Specific Objectives. Bullet points only, taken from the first chapter of the plan.
- Milestones. If possible show the Milestones chart only.
- Investment Analysis. Bullet points only, taken from the PREMIER version's Investment Analysis table.
- Keys to Success. Bullet points, from this topic in the first chapter.
- Next Steps. Always a good idea, end the discussion with next steps, assuming a positive outcome.

Like a business plan, a business plan presentation is a specialized tool. Most of these presentations need to summarize an entire business plan in a streamlined 7-20 slides for a talk that lasts about 30 minutes.

- It uses graphics to illustrate main points. The slide displays the chart only, so the presenter fills in the details.
- It uses bullet points and key phrases only. They are reminders and placeholders, not complete thoughts.
- It is all summary. The text is large and there isn't much of it. Charts tell most of the story.

A good presentation is about results. It's short and exciting. It makes its key points quickly and well. It needs to be optimized for the business purpose, avoid details, and stick to highlights.

Always, even when details are important, keep the text large and the graphics simple. People don't read details from a presentation.

This kind of optimized tool isn't done automatically by computer software, and particularly not by business plan software. The format is different, the purpose is different, so the tool itself must also be different. There's no way a business plan document can automatically create a PowerPoint presentation without ending up with a poor presentation, too much text, too many numbers, and not enough summary.

Chapter 13, Working with Microsoft Office explains how to create this kind of presentation in PowerPoint using your plan developed with BUSINESS PLAN PRO to provide the content.

Web Options as Output

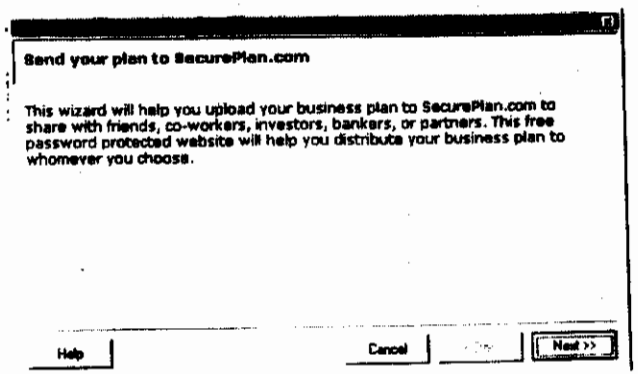
The Internet and the World Wide Web offer attractive alternatives to distributing a document as a printed physical copy. The advantages include immediate availability, always having the latest copy online, and multiple access 24 hours a day, 7 days a week.

www.secureplan.com

BUSINESS PLAN PRO includes the facility to publish a business plan directly to a secure, password-protected website provided by Palo Alto Software. The commands for uploading onto a secure website are built into the software. Click the File > Send To > SecurePlan.com command.

Select SecurePlan.com and a welcome screen will display, similar to that shown in Figure 8-12.

FIGURE 8-12: SECUREPLAN.COM WELCOME SCREEN



These screens walk you through the process of uploading your business plan to a secure website.

- Click the Next >> button to continue.

You will then be asked to establish your SecurePlan.com account, as shown in Figure 8-13.

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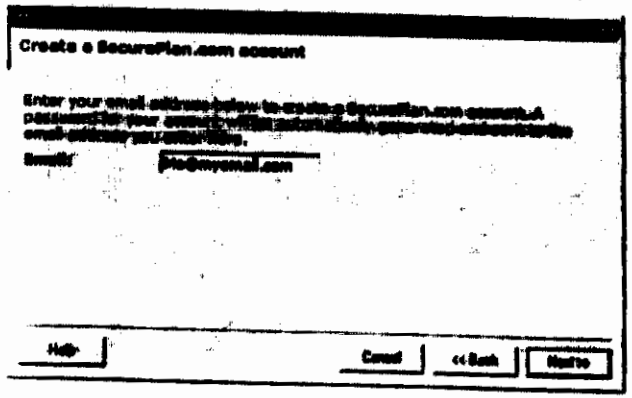
Figure 8-13: Establish a SecurePlan.com Account



Your SecurePlan.com account is password protected.

Once your account is established, additional screens will take you through the steps to upload your business plan to your secured website page.

?

To Learn more about...	Search the Help Index for...
Password protected website for sharing your business plan	SecurePlan.com

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Planning for Implementation

The Human Side of Implementation 9.3
Plan-vs.-Actual - PREMIER version 9.3
Actual Inputs 9.6
Balance Sheet Variance a Cash Flow Predictor 9.8

CHAPTER 9: PLANNING FOR IMPLEMENTATION

A business plan is a living document. Once your plan numbers are in place, you will want to track the actual numbers, then compare them to your plan. Were your estimates accurate? Did you make more sales then expected? Were your expenses higher than you planned? How are these differences going to affect your business? What adjustments should be made to adapt to these changing needs?

That's the power of tracking results. BUSINESS PLAN PRO® PREMIER *version provides the ability to create a plan-vs.-actual comparison automatically.*

Variances do go in different directions. For sales and profits, actual results that are higher than planned show as a positive variance, and less than planned results are shown as a negative.

For negative items, including costs and expenses, actual results that are less than planned will show as a positive value, and items that are more than planned will show as a negative.

The Human Side of Implementation

Business plan implementation depends on tracking and following up. Every member of the team responsible for implementing a plan should know for sure that actual results will be compared to what was planned. Their responsibilities should be clearly defined.

BUSINESS PLAN PRO® version includes a Milestones table that allows the listing of clearly defined key actions and responsibilities. Without a clear definition, implementation is unlikely.

Variance analysis—jargon for plan-vs.-actual analysis—is tricky. Read up on this in Hurdle: The Book on Business Planning. For example, a positive variance in Accounts Receivable could be a very good thing, an increase in sales, or a bad thing, a failure to collect on past sales. A positive variance in advertising expenses could be smart media buying that reduced expenses without hurting advertising effectiveness, but it might also be a failure to follow through, and lack of advertising.

TIPS

See Also...

Hurdle: The Book on Business Planning, Chapter 19, Plan for implementation contains additional examples of plan-vs.-actual analysis and the importance of following through with your original plan and making it real. Click the Resources button > Books > Hurdle to read the book on screen in Adobe Acrobat® Reader's PDF format.

Plan-vs.-Actual - PREMIER version

Implementation depends on tracking and following up, and that's where plan-vs.-actual analysis is critical. You can't track results and follow up with management unless you know what's going on with the plan-vs.-actual.

These key BUSINESS PLAN PRO PREMIER version tables are built as management tools, with plan-vs.-actual facilities included:

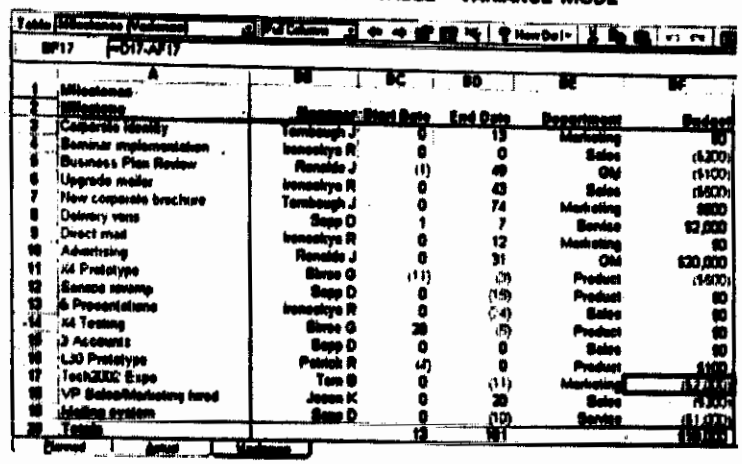
- Sales Forecast
- Personnel Plan
- Profit and Loss
- Balance Sheet
- Milestones
- Cash Flow

The Balance Sheet is particularly important in Actual mode, because it includes your cash balance, the most critical number in the business plan. In Actual mode, you can use your Balance Sheet as a very powerful predictor of cash. Details are in the Actual inputs section later in this chapter.

You can use this feature by changing your Table mode from Plan to Actual. To switch from your plan tables to actual mode, click on the tabs at the bottom of each table. After actual results are typed into the Actual areas, then you can check Variance, also built into BUSINESS PLAN PRO PREMIER version, which is the difference between what you planned and your actual results.

Figure 9-1 shows the Milestones Table in its Variance mode, which compares actual results to the original plan. In the example, the plan is only a few weeks old, so there is only variance for the first few weeks. You can see how some projects started late, finished late, or finished early.

FIGURE 9-1: MILESTONES TABLE - VARIANCE MODE



	A	BB	BC	BD	BE	BF
1	Milestones					
2	Milestone	Manager	Start Date	End Date	Department	Budget
3	Corporate identity	Tomlough J	0	13	Marketing	$0
4	Seminar implementation	Ionesckye R	0	0	Sales	($300)
5	Business Plan Review	Ronaldo J	(1)	49	GM	($100)
6	Upgrade mailer	Ionesckye R	0	43	Sales	($600)
7	New corporate brochure	Tomlough J	0	74	Marketing	$800
8	Delivery vans	Sapp D	1	7	Service	$2,000
9	Direct mail	Ionesckye R	0	12	Marketing	$0
10	Advertising	Ronaldo J	0	31	GM	$20,000
11	X4 Prototype	Stone G	(11)	(3)	Product	($600)
12	Service revamp	Sapp D	0	(15)	Product	$0
13	6 Presentations	Ionesckye R	0	(14)	Sales	$0
14	X4 Testing	Stone G	28	(5)	Product	$0
15	3 Accounts	Sapp D	0	0	Sales	$0
16	L30 Prototype	Patrick R	(4)	0	Product	$100
17	Tech2000 Expo	Tom B	0	(11)	Marketing	[illegible]
18	VP Sales/Marketing hired	Jason K	0	20	Sales	[illegible]
19	Mailing system	Sapp D	0	(10)	Service	[illegible]
20	Totals		13	161		[illegible]

This example shows the plan-vs.-actual variance view of the milestones table.

TIPS

Variance Depends On...

Notice that variance differs by context. A positive variance from plan is good when it is more sales than planned, but bad when it is higher costs than anticipated.

You always have to look at the causes—for example, spending less than planned on cost of sales is a positive variance, but it isn't necessarily a good thing...maybe sales were lower than expected, causing cost of sales to be lower as well.

Plan-vs.-Actual Logic

The Plan-vs.-Actual analysis in BUSINESS PLAN PRO PREMIER is built on the logic of the information available to you as you develop your actual results.

- **Actual Sales.** The plan estimates future sales by multiplying projected units times projected price; the actual results calculate actual Price by dividing actual Sales by actual Units.
- **Operating Expenses.** Type your actual Operating Expenses into the Profit and Loss table. It will show the actual Sales and Costs of Sales from the Sales Forecast, and actual Personnel from the Personnel Plan.
- Balance Sheet. When you have actual results, you generally have direct access to type in all balances of Balance Sheet items, except Cash. Type Actual balance amounts into the Balance Sheet Actuals table. The cash balance is calculated automatically from the other balances.
- Cash Flow. Cash Flow in Plan mode determines the Balance Sheet. In Actual mode, the Cash Flow is determined by the other balances. It makes no sense to type in Actual changes in Cash Flow, when they are already typed into Actual balances. Therefore, the Actual Balance Sheet contains the relevant Cash Flow information.

TIPS

Data in Actual Tables

BUSINESS PLAN PRO PREMIER version automatically transfers your Plan numbers to the Actual tables. You can then type in Actual numbers to replace the copied Plan numbers.

Optimized Data Entry for Actual Tables

In several tables the input logic changes for actual results. Follow the indication of green-vs.-black cell color to see where inputs are expected. For example:

- The Sales Forecast inputs change for actual to accommodate the way most companies manage information. In the Plan mode, in the units forecast option, BUSINESS PLAN PRO PREMIER assumes forecasting is easier when projecting Units first, then Unit Prices, and calculating Sales as Units multiplied by Price.

  In the Actual mode, however, BUSINESS PLAN PRO PREMIER calculates Average Unit Price by dividing the Sales by Units. This matches the way information is available. In Figure 9-2 the Total Unit Sales cells are unlocked (they display in green on your screen), while the average Unit Price is locked (and displays in black).
- When you use the Personnel by People table for Personnel, in the Plan mode you type estimated people per personnel category and average personnel for each. In the Actual mode, you type in the total cost and the total number of people, and BUSINESS PLAN PRO PREMIER version calculates the Average per Person.
- In Plan mode, you estimate Payroll Taxes as a percent applied to the payroll. In Actual mode, just type in the actual Payroll Taxes as it occurred.
- In Plan mode, BUSINESS PLAN PRO PREMIER estimates interest expenses and taxes based on assumptions. In Actual mode, just type the actual amounts into the proper cells.

FIGURE 9-2: AVERAGE PRICE IN ACTUAL MODE

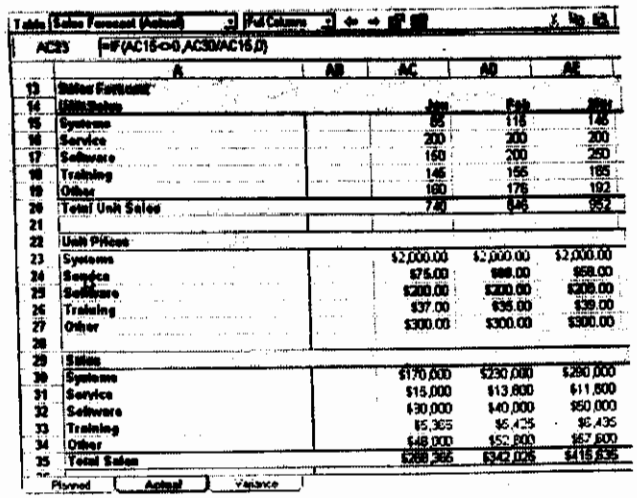


Table: Sales Forecast (Actual) | Full Column

AC25 =IF(AC15<>0,AC30/AC15,0)

	A	AB	AC	AD	AE
13	Sales Forecast				
14	Units Sales		Jan	Feb	Mar
15	Systems		85	115	145
16	Service		200	200	200
17	Software		160	200	250
18	Training		145	155	185
19	Other		180	175	192
20	Total Unit Sales		770	845	952
21					
22	Unit Prices				
23	Systems		$2,000.00	$2,000.00	$2,000.00
24	Service		$75.00	$88.00	$98.00
25	Software		$200.00	$200.00	$205.00
26	Training		$37.00	$35.00	$39.00
27	Other		$300.00	$300.00	$300.00
28					
29	Sales				
30	Systems		$170,000	$230,000	$290,000
31	Service		$15,000	$13,800	$11,800
32	Software		$30,000	$40,000	$50,000
33	Training		$5,365	$5,425	$5,435
34	Other		$48,000	$52,800	$57,600
35	Total Sales		$268,365	$342,025	$415,835

Planned | Actual | Variance

In the Actual mode, type in Unit Sales and Sales Values; BUSINESS PLAN PRO PREMIER *calculates average Unit Price. The inputs match the data you have.*

Streamlined Cash Planning in Actual Mode

- The Balance Sheet in Actual mode opens up all of the balance items for direct input. Type your balances as they ended up in actual results. The cash balance is left as a calculation to make sure that Capital and Liabilities are equal to Assets, as they must always be. If your ending cash doesn't check with actual results, then there is an input error in one of the other balance items.
- Cash Flow actual is largely irrelevant. Look to the Balance Sheet, and particularly changes in Actual Balance Sheet items, to explain changes in Cash Flow.

TIPS

Cash Planning with Actuals

The Actual mode includes a different take on cash planning intended to help you adjust your cash expectations to deal with reality as it comes. By the time you're six or eight months into implementing a plan, switch to the Actual Balance sheet to help you adjust your expected cash flow. Use the input cells there to experiment with different possible values, and see how they affect your expected cash.

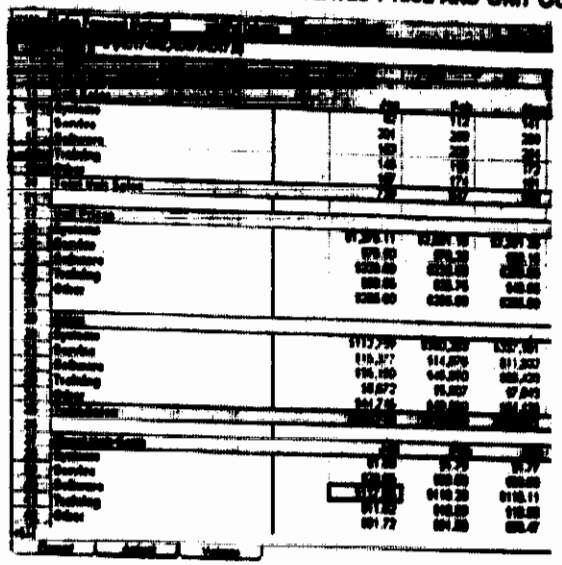
Actual Inputs

- Type in your actual sales results in the Sales Forecast.

- If you have the value forecast, type in Sales and Cost of Sales, by row.
- If you have the units forecast, type in Unit Sales, total Sales Value by row, and Cost of Sales by row.

BUSINESS PLAN PRO PREMIER version calculates your actual Price and actual Unit Cost as shown in Figure 9-3.

FIGURE 9-3: ACTUAL SALES CALCULATES PRICE AND UNIT COST



In the actual Sales Forecast area, you type in Units and total Sales and BUSINESS PLAN PRO PREMIER *calculates Price and Direct Unit Costs.*

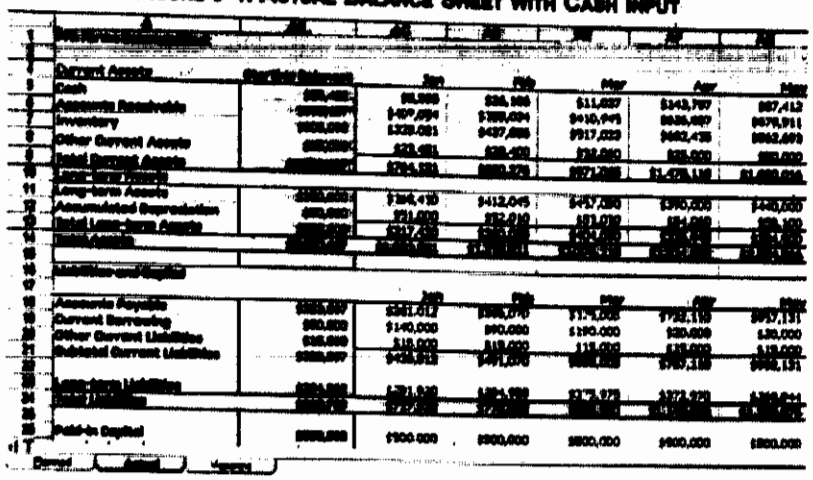
- Type in your actual personnel costs in the Personnel Plan. If you have selected the Personnel table that multiplies average cost by number of people, type in the total cost and the number of people, and BUSINESS PLAN PRO PREMIER will calculate average cost per person.
- Type in these additional actual numbers in the Profit and Loss table:
  - Other Costs of Sales
  - Operating Expenses
  - Interest
  - Taxes

As with the normal worksheet, numbers are linked from sales and personnel. You type in Actual interest, and BUSINESS PLAN PRO PREMIER calculates your interest rate as a

function of liability balances and interest paid. Type in the taxes incurred, and BUSINESS PLAN PRO PREMIER calculates your tax rate.

- For the Balance Sheet, type in your actual Balance Sheet numbers in all rows except Cash. Cash is automatic. It takes whatever is left, after you've completed all liability and capital rows and all other assets rows, and makes that cash. Figure 9-4 is a Balance Sheet example.

FIGURE 9-4: ACTUAL BALANCE SHEET WITH CASH INPUT



In the Actual mode of the Balance Sheet, type into the green unlocked rows and BUSINESS PLAN PRO PREMIER *calculates the rest.*

Balance Sheet Variance a Cash Flow Predictor

When working with actual instead of planned numbers, your important Cash Flow predictor is in your Balance Sheet. As you enter actual results month by month, your Balance Sheet becomes a working tool for predicting future cash in future months. Here's how:

- Type in the actual Balance Sheet numbers for each month.
- Use the Variance mode to compare the actual Balance Sheet to the plan. As an example, the following Figure 9-5 is the Variance mode view of the actual Balance Sheet shown previously.

FIGURE 9-5: SAMPLE BALANCE VARIANCE

	A	BB	BC	BD	BE	BF	BG
1	Pro Forma Balance Sheet						
2							
4	Current Assets		Jan	Feb	Mar	Apr	May
5	Cash		($142,251)	($113,695)	($61,561)	$80,873	$80,873
6	Accounts Receivable		$87,496	($12,950)	$8,272	$0	$0
7	Inventory		$8,719	$10,695	($10,311)	$0	$0
8	Other Current Assets		($1,549)	$3,400	$7,080	$0	$0
9	Total Current Assets		($47,585)	($112,550)	($56,540)	$80,873	$80,873
10	Long-term Assets						
11	Long-term Assets		($6,570)	$37,045	$67,080	$0	$90,000
12	Accumulated Depreciation		$0	$0	$0	$0	$0
13	Total Long-term Assets		($6,570)	$37,045	$67,080	$0	$90,000
14	Total Assets		($54,155)	($75,505)	$10,540	$80,873	$170,873
15							
16	Liabilities and Capital						
17			Jan	Feb	Mar	Apr	May
18	Accounts Payable		$53,788	$105,154	$179,423	$0	$0
19	Current Borrowing		($80,000)	$0	($100,000)	$70,000	$70,000
20	Other Current Liabilities		$0	$0	$0	$0	$0
21	Subtotal Current Liabilities		$3,788	$105,154	$79,423	$70,000	$0
22							
23	Long-term Liabilities		$0	$0	$0	$11,892	$14,818
24	Total Liabilities		$3,788	$105,154	$79,423	$81,892	$14,818
25							
26	Paid-In Capital		$0	($25,000)	($25,000)	($25,000)	($225,000)

Planned | Actual | Variance

The Variance view shows the Cash balance was lower than planned, and Current Liabilities (debt) is higher than planned.

Notice the proper treatment of variances:

- In the Assets portion, more than planned is a positive variance, and less than planned is negative variance.
- With Liabilities, more than planned is negative variance, and less than planned is positive.

Positive variance isn't always a good thing. In the illustration above, in January, Accounts Receivable above planned and Accounts Payable below planned combine to hurt Cash Flow. Cash is way below plan.

TIPS

Use the Actual mode for Course Corrections

As your plan starts rolling, you're going to want to revise budgets as you go, making course corrections.

Use the Actual mode screen instead of Plan mode and you can manage both the plan and the revisions within the plan. For example, if you're three months into the actual results of the plan, use the actual results area from the fourth month on to keep your revised budgets. That way you'll keep the original plan but also have it optimized.

Use the actual area for a revised cash flow. In the example taken from the two Figures 9-4 and 9-5, above, the flow is quite different from planned. Specifically:

- The Cash balance is lower than planned, despite Current Borrowing being higher than planned. Sales on Credit is high, and payment of Accounts Receivable is low.
- Accounts Payable is lower than planned, so more money than planned was taken out of the credit line.

The revised Cash Flow plan, in the actual Balance Sheet, shows in Figure 9-6.

FIGURE 9-6: REVISED CASH BUDGET IN ACTUAL BALANCE

	A	AB	AC	AD	AE	AF	AG
1	Pro Forma Balance Sheet						
2							
4	Current Assets	Starting Balances	Jan	Feb	Mar	Apr	May
5	Cash	[illegible]	[illegible]	$26,185	$11,037	$72,964	$38,870
6	Accounts Receivable	[illegible]	$407,064	$358,024	$410,945	$528,687	$679,911
7	Inventory	$828,099	$325,001	$177,656	$517,023	$492,023	$442,023
8	Other Current Assets	$20,000	$23,451	$26,400	$32,000	$32,000	$30,000
9	Total Current Assets	$1,280,607	$764,121	$650,276	$971,005	$1,223,934	$1,210,804
10	Long-term Assets						
11	Long-term Assets	$390,000	$369,430	$412,045	$457,080	$457,080	$457,080
12	Accumulated Depreciation	$90,000	$51,000	$52,010	$53,020	$54,030	$55,100
13	Total Long-term Assets	$300,000	$317,430	$360,035	$404,060	$403,050	$401,980
14	Total Assets	$1,580,607	$1,081,551	$1,210,311	$1,375,115	$1,626,984	$1,612,784
15							
16	Liabilities and Capital						
17			Jan	Feb	Mar	Apr	May
18	Accounts Payable	$223,897	$291,012	$286,070	$375,005	$375,005	$425,000
19	Current Borrowing	$90,000	$140,000	$90,000	$190,000	$190,000	$100,000
20	Other Current Liabilities	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
21	Subtotal Current Liabilities	$328,897	$446,012	$491,070	$580,005	$580,005	$540,000
22							
23	Long-term Liabilities	$284,862	$291,920	$284,958	$275,975	$372,970	$369,944
24	Total Liabilities	$613,759	$737,932	$776,028	$855,980	$952,975	$909,944
25							
26	Paid-In Capital	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000

Planned | Actual | Variance

Revisions in the April-May columns for Accounts Payable, Inventory, Long-term Assets, and Current Borrowing show a more realistic cash budget for April and May.

The revisions add realism to the actual Balance Sheet, and effectively add course correction and management to plan implementation. Several amounts in the actual Balance Sheet are changed from plan already, even in early April, because these changes improve the revised plan:

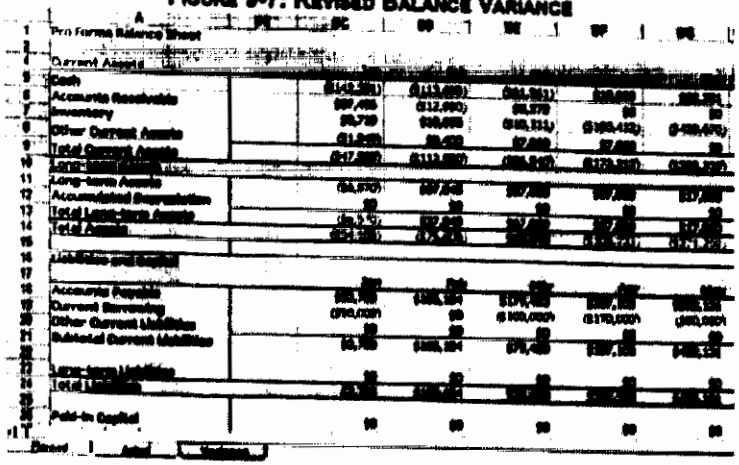
- Accounts Payable was running lower than planned. The revised budget decreases Payables from more than $700K to $375K in April, and from more than $900K to $425K in May.
- The original budget had only $20K as the outstanding balance of the credit line by May. That won't happen, in this case, it was too optimistic.
- Inventory is running more than planned, but it shouldn't continue to increase, so the revised budget has it decreasing slightly.

- Cash is now less in the revised plan, the credit line is higher, and Accounts Payable is lower. This is a more realistic cash plan.

What's important here is a revised action plan that serves as a management tool. As actual results for April become available in early May, management puts actual results into April and revises (again) May and June and possibly even July to make a realistic action plan.

The changes in any other row of the Balance Sheet have a direct impact on the predicted Cash Balance for any future month. After the plan begins to run its course, therefore, the revised cash plan is a working tool in the actual Balance Sheet, as shown in Figure 9-7.

FIGURE 9-7: REVISED BALANCE VARIANCE



This revised Balance Sheet Variance is a more realistic picture because it deals with changes in January through March.

TIPS

Plan to Use Your Accounting for Actuals

Chapters 11 and 12, Working with Quicken® and QuickBooks®, will help you plan for compatibility with your Quicken accounting. Make sure that the expense and sales rows in your business plan match your chart of accounts in your accounting, which will make the actual numbers easier to find and conceptually linked to your accounting output.

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CHAPTER 10: ADVANCED TABLES

Chapter 6, Your Plan Tables, covers the standard tables. This chapter covers additional programming and customization.

The best way to learn this is by doing it. This chapter will take you through a series of examples. It starts with simple examples that offer practical tips. It also includes details of more complex formulas, as well as explanations of formulas you might want to add or change.

This level of customization is provided for those users who may want it. It is not necessary in order to create a solid business plan.

Customizing Formulas in Tables

BUSINESS PLAN PRO® gives you extensive spreadsheet-like programmability for your financial tables. Although your tables don't need to be programmed, they are built into a very powerful spreadsheet tool that includes a complete Microsoft Excel®-compatible spreadsheet which supports sophisticated financial functions that calculate your loan payments, depreciation, and investment analysis. All of this power is available even while working within the financial analysis.

Furthermore, you can build your own customized spreadsheets within BUSINESS PLAN PRO directly (PREMIER version), linking them to the thoroughly tested and documented tables already there.

Examples - Custom Formulas

Let's go through some examples of BUSINESS PLAN PRO spreadsheet formulas. To follow along with the examples:

- Open BUSINESS PLAN PRO.
- Use the Sample Plan Browser to open a business sample plan file (the AMT Computers sample plan is a good one, although not all the examples show exactly that plan).
- From the Tools menu, choose Options > Tables.
- Set your tables to show row and column headings.

Example: Absolute Reference in a Formula

Relative Value

The default reference for spreadsheet formulas is "relative" to its current location. If you copy a formula to another column, the reference in the formula changes accordingly.

Absolute Value

Sometimes you don't want some or all of a formula to change its reference. In those cases, we use the $ in the formula, which makes it "absolute," regardless of which cell the formula is copied to.

In Figure 10-1, the formula highlighted in column C is: =$B38*C23 The $ makes the reference to B38 an absolute reference to column B.

FIGURE 10-1: SAMPLE FORMULA WITH ABSOLUTE VALUE

C38 =$B38*C23

	A	B	C	D
10	[illegible]			
14	Unit Sales			
22	Unit Prices		Jan	Feb
23	Systems		Jan	Feb
24	Service		$2,000.00	$2,000.00
25	Software		676.00	689.00
26	Training		6,200.00	6,200.00
27	Other		637.00	1,375.00
28			5,000.00	5,000.00
29	Sales			
30	Systems		$171,000	$240,000
31	Service		$5,000	$10,000
32	Software		$30,000	$40,000
33	Training		65,985	85,425
34	Other		649,000	662,000
35	Total Sales		[illegible]	[illegible]
36				
37	Direct Unit Costs		Jan	Feb
38	Systems	80.00%	11,800.00	61,600.00
39	Service		637.00	660.00
40	Software		5,000.00	5,000.00
41	Training		511.10	511.10
42	Other		690.00	690.00

In this example, Cell C38 shows a formula with an absolute value for column B.

If you were to copy that formula to cell D38, the formula could become: =$B38*D23 . The reference to C23 moved one column to the right, but the reference to column B in $B38 didn't change. In our example, the only portion of the formulas that is "absolute" is the reference to column B. If we copied the formula down a row, the row reference would change "relative" to its new location. The new formula in cell C39 would become =$B39*C24 . In that case, the B column remains absolute because of the $, but the row number adjusts to the change in location.

To create an absolute reference for both column and row, we would use the $ sign for both. In that situation, if our formula had been created as: =$B$38*C23 and we then copied it to C39, both column and row number would have remained absolute, making the formula =$B$38*C24

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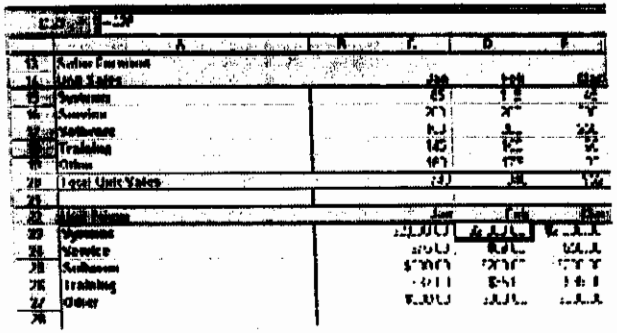
Example: Automatic Price Formula for Sales Forecast

In this example, we will create a price formula so that every cell in the row looks to the first cell for the correct number. In Figure 10-2 you see a portion of the Sales Forecast table of the AMT Computers sample plan.

FIGURE 10-2: SALES FORECAST FORMULA



This simple formula makes the price in column D equal to whatever price is already in column C.

Cell D23 is selected. The formula for cell D23 is: =C23

If you copy that formula into the rest of the 12 monthly columns (Edit > Fill > Right command), then whenever you change the assumption in the first month, that change automatically ripples through the whole system.

TIPS

Locked Cell Error

As you copy the formula in D23 and paste it in the following cells to its right along the row, you can't paste into cell O23. That would produce a "locked cell" error.

O23 is locked because it calculates average price for the year by dividing total revenue by total units sold.

This example shows basic spreadsheet programming. The formula in D23 makes that cell equal to whatever is in C23.

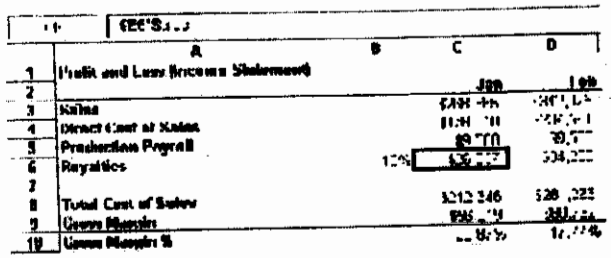
- Select D23.
- Hold down the shift key while D23 is selected and then press the right arrow key a few times. That automatically selects a range of cells to the right along the row.
- Use the Edit > Fill > Right command to copy D23 across the row. If your selection includes O23, which is locked, you'll get the locked cell error message (described in a previous tip).

Example: Variable to use as Percent of Sales (P&L Example)

BUSINESS PLAN PRO uses named ranges as variable names as much as possible, to simplify reading and working with formulas. There are several dozen built-in range names that work from any table in BUSINESS PLAN PRO. These are named to make them easier to include within a formula. For example, the Sales Forecast table uses a range name "Sales" as a variable, which is the sum of sales for that column.

However, you don't have to be in the Sales Forecast to use the "Sales" range name. Figure 10-3 shows how you can use this built-in English-language range as a variable to create a formula to make all the cells in a given row of the Profit and Loss table calculate as a percent of sales.

FIGURE 10-3: PERCENT OF SALES IN PROFIT AND LOSS



Notice the use of the named range "Sales" as a variable in the formula shown, also the $B6 which will always refer to the B column when used in any other column.

The example shows a Profit and Loss table with cell C6 selected. The formula for C6 calculates that cell by multiplying the variable with the range name "Sales" by the value in B6. As with a previous example, the reference to B6 uses the $B6 to make sure that the reference to column B is absolute, and the reference to row 6 is relative. That formula was written into C6 first, then copied to cells D6:N6 and P6:S6.

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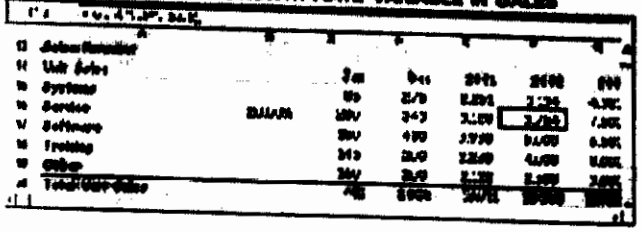
Example: Programming a Sales Forecast Growth Rate in Column B

Figure 10-4 shows a sample sales forecast in which a growth rate assumption, in column B, automatically calculates sales projections for annual sales in the second and third year.

Figure 10-4: Growth Rate Variable in Sales



This formula sets a growth rate in column B that impacts the annual numbers in columns P and Q.

The formula in P16 (in the figure above) calculates service unit sales in 2002 by applying the growth rate in column B. The phrase $B16 in that formula will always refer to the absolute value in the B column.

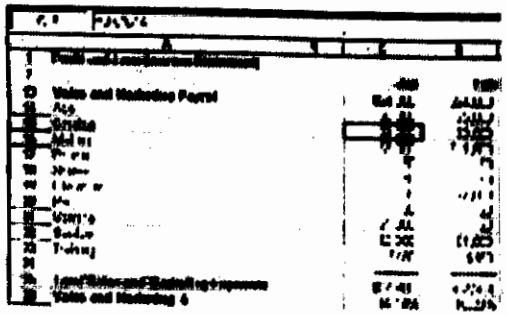
Round to Nearest Whole Number

The formula described in Figure 10-4 also uses the ROUND function to round the result to the nearest whole number. For example, the formula "=round(3/5,0)" would calculate to the whole number 1, while the formula "=round(2/5,0)" would calculate to the value 0.

Example: Make a Cell a Percent of any Other Cell (P&L Example)

You can create formulas to calculate a cell using the value of another cell. Figure 10-5 shows an example of a formula that calculates a cell to be 50% of the value of another cell. In cell C15, the formula is =.5*C14 . The value in C14 is 5,000, so the value in C15 is 2,500, exactly 50% of 5000.

Figure 10-5: One Row a Percent of Another

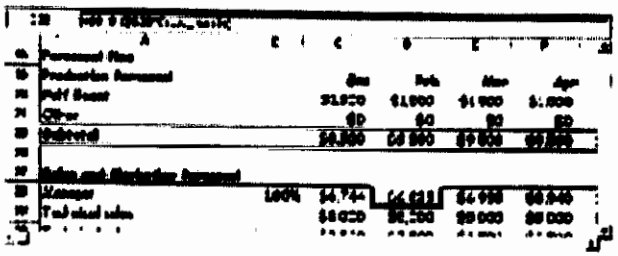


The formula makes the catalog expense 50% of advertising expense.

Example: Sales Commission Formula (Personnel Example)

Figure 10-6 shows a commission structure that can be built into the Personnel Plan. The formula for cell D28 shows in the edit bar in that figure. It applies whatever percent is typed into column B in that row to the Gross Margin for that same month.

Figure 10-6: Setting Commissions for Personnel



The formula in the edit bar shows how spreadsheet programming sets the commission rate for the sales manager.

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Range Names

Just as the formula in Figure 10-3 uses "Sales" as a named range, you can use dozens of other named ranges as variables. These include Sales, Earnings, Inventory, Gross_margin, etc.

Ranges Names are Relative

Range names automatically adjust for different columns. The formula =Sales in column G will show the value of sales in column G. That same formula in column D will show the value of sales in column D.

Errors using Range Names

#VALUE

Range names will produce errors when used improperly. For example, the range named "Sales" starts in column C and spreads across multiple columns. The formula =Sales in column B produces a #VALUE error because there is no valid value for that column.

However, a range name that occupies a single cell can be used as a variable anywhere in the financials. For example, since the range "Starting_year" occupies a single cell, you can use the formula =Starting_year anywhere in the financials without getting a #VALUE error.

Pasting Range Names

When you copy a formula using a range name and paste it into a new table, BUSINESS PLAN PRO automatically changes it by adding an underscore character and a number. It has to make this change to keep track of new range names.

For example, paste the formula "=sales" into a new worksheet and BUSINESS PLAN PRO will paste "=sales_2" instead.

You can go back and change this, but the default will happen that way. This handling is necessary because the named ranges are in different worksheets.

TIPS

List of Range Names

A complete list of the built-in range names for BUSINESS PLAN PRO can be found in Appendix A of this manual.

Linking Tables

Reading Built-in Links

Click on any cell in the Sales row of the Profit and Loss table and look at its formula. It's linking from the Sales Forecast, with some spreadsheet logic (the IF portion) to specify which of the various Sales Forecasts is active.

Building Your Own Links

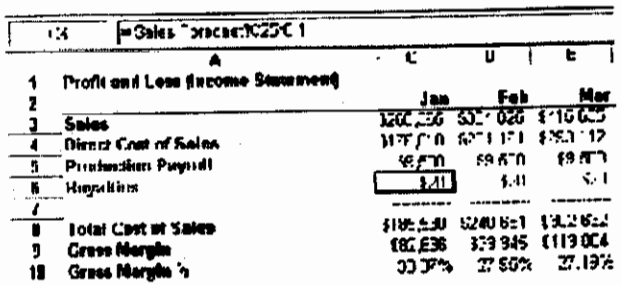
You can use the spreadsheet power to build your own links to fit your planning needs. Here are some examples:

Examples - Linking Tables

Example: Link from Sales Forecast to Profit and Loss

Assume that AMT plans on paying royalties equal to 10% of sales of software. We can build a formula that does this automatically. That formula is demonstrated in Figure 10-7. We take a row in Profit and Loss named "Royalties" and link it to the row in the Sales Forecast that contains software sales.

FIGURE 10-7: LINK FROM SALES TO PROFIT AND LOSS



	A	C	D	E
1	Profit and Loss (Income Statement)			
2		Jan	Feb	Mar
3	Sales	[illegible]	[illegible]	[illegible]
4	Direct Cost of Sales	[illegible]	[illegible]	[illegible]
5	Production Payroll	[illegible]	[illegible]	[illegible]
6	Royalties	[illegible]	[illegible]	[illegible]
7				
8	Total Cost of Sales	[illegible]	[illegible]	[illegible]
9	Gross Margin	[illegible]	[illegible]	[illegible]
10	Gross Margin %	[illegible]	[illegible]	[illegible]

The formula for royalties takes 10% of row 25 in the Sales Forecast.

The formula for cell C6 in the Figure 10-7 is: ='Sales Forecast'!C25*0.1

You can type that formula into your Profit and Loss table, or you could follow these steps:

1. Use the Edit > Row Label command to change the row label from "Other" to "Royalties."

2. Select the January cell for the Royalties row (our example shows cell C6). This is the target cell for the link formula.
3. Type the equals sign = (without quotation marks or parentheses) into the cell.
4. Go to the Table pull-down list and choose the Sales Forecast table.
5. Find the cell for January sales of software (in the example, cell C25) and select it. This will be the source cell.

   Your formula edit bar should at this point show the formula =’Sales Forecast’!C25
6. To make royalties equal to only 10% of sales of software, we type into the formula *0.1
7. Press the ENTER key.

You are probably looking at Profit and Loss at this point (cell C6 in our example). Your formula should now be correct: =’Sales Forecast’!C25*0.1

To put this same link across the entire row:

- Copy the January royalties formula (cell C6) and Paste into remaining months (cells D6:N6), and years two and three (P6:Q6) or years two through five in a longer plan (P6:S6).

TIPS

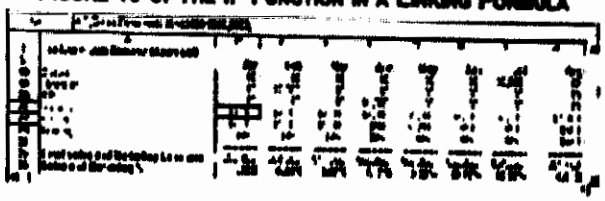
Cell References in Linked-tables Formula Examples

We refer to specific cells as they appear in our example. Your settings may show differently. Use the cell address as a general reference and adjust to match your table view.

Example: An IF Function in Profit and Loss linked to a Sales Row

Figure 10-8 shows an expense row from Profit and Loss linked to a sales row, using a simple IF function. The formula checks whether training sales (cell C33 of the Sales Forecast) are greater than $10,000. If they are, then the seminar expense is $5,000. If not, then the seminar expense is $2,000.

FIGURE 10-8: THE IF FUNCTION IN A LINKING FORMULA



The IF function in this example sets seminar expense to vary according to Sales Forecast numbers.

Follow these steps to create the formula link in your own plan:

1. Select the target cell (cell C21 in the Profit and Loss).
2. Type: =IF(
3. Choose the Sales Forecast table from the pull-down menu.
4. Find the source cell in the Sales Forecast table (cell C33) and click to select it. The edit bar shows the formula as: =IF(’Sales Forecast’!C33
5. Type the rest of the formula into the edit bar, as shown in the example: >10000,5000,2000)
6. Press <ENTER>.
7. Use the Edit > Fill > Right command to copy the formula to the rest of the unprotected cells in the row.

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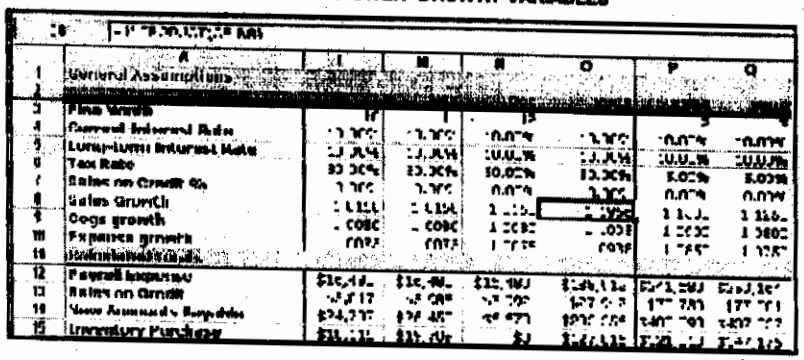
Building Power Variables

Power variables in a spreadsheet are cells whose values affect many other cells. For example, in BUSINESS PLAN PRO you might set the growth factors shown in Figure 10-9 in a new table, then link to those growth factors in your financials. That gives you the power to change the forecast rapidly, do sensitivity analysis, and scenarios. This example adds rows to the General Assumptions table.

FIGURE 10-9: POWER GROWTH VARIABLES

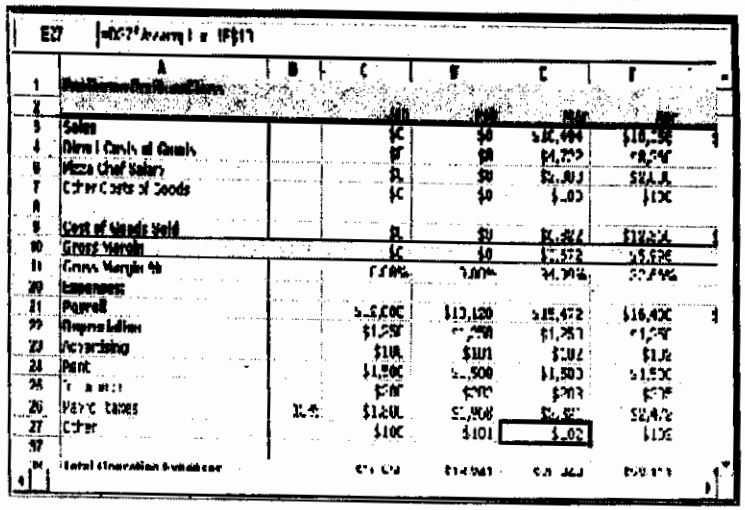


For this illustration we inserted rows in the General Assumptions table and set up the power growth variables shown. The 2003 annual factors are automatic, based on monthly assumptions and the formula shown.

The second columns (column B) of the Sales Forecast, Personnel Plan, and Profit and Loss are empty without protection so that you can program your own power variables. Once those variables are available, program the main tables to link into them.

Figure 10-10 shows a view of how the Profit and Loss table looks in the monthly section with power variables linked in from the Assumptions table. The formula shown in the illustration, for example, applies the growth factor to a monthly expense item. Notice the use of the "$10" absolute reference, which is convenient for copying that formula to other rows in the expense area. You can use similar links to growth factors in the Sales Forecast and Personnel Plan (not shown).

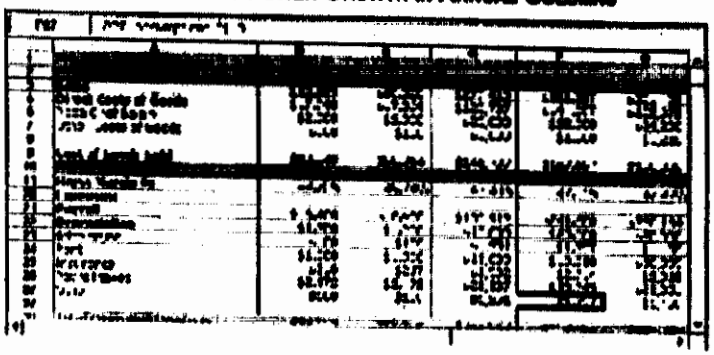
FIGURE 10-10: POWER VARIABLES IN PROFIT AND LOSS



*The spreadsheet programming makes all expense rows grow the same rate assigned by the power variables. The formula for E27 shows in the illustration. The formula for cell F27, for example, is =E27*Assumptions!F$10.*

Figure 10-11 shows a portion of the same business plan's Profit and Loss table in the annual area, to the right. As with the monthlies, the power growth assumption is built into the formula. The formula for cell P27 is =O27*(Assumptions!P$10) . The row number 10 is absolute, but the column letter P isn't because the R column is also used for the following year. The sales and personnel tables have similar formulas (not shown).

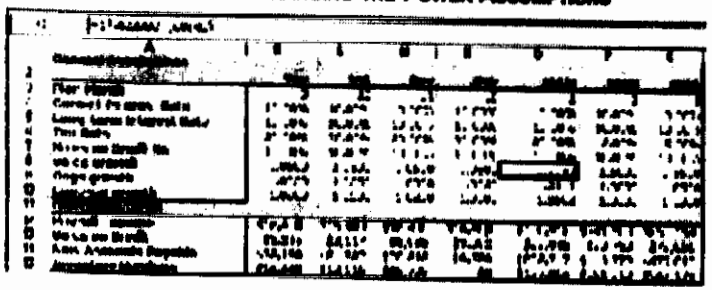
Figure 10-11: Power Growth in Annual Columns



The formula in cell P27 shows in the edit bar. All the expense rates are set to grow at the same power-variable rate.

When the power variables are programmed into the tables, you can make changes and evaluate assumptions very quickly. The quick change of assumptions in Figure 10-12 generates the different financial picture shown in Figure 10-13.

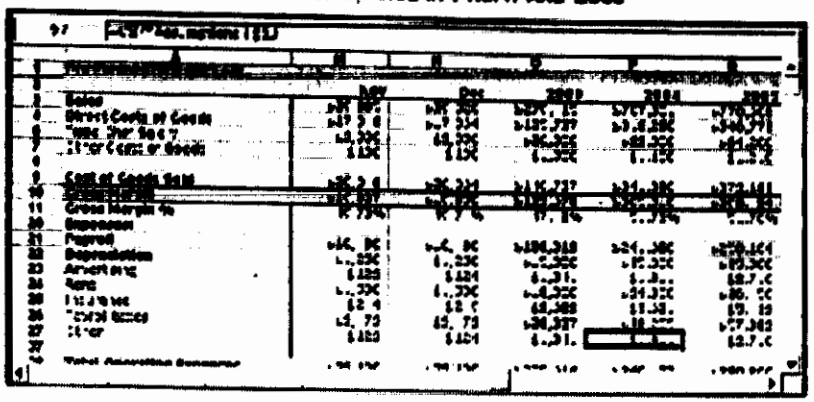
Figure 10-12: Changing the Power Assumptions



This illustration shows a very different set of assumptions, but the change involved just a few power variables.

In Figure 10-13 the formula for cell P27 shows how the formula hasn't changed, but the values shown have. The different growth factor created significant change automatically. Look for the change showing in the expense areas.

Figure 10-13: Change in Profit and Loss



Changing the power variables as shown in Figure 10-12 produces a radically different financial picture shown here.

Tips

Tradeoffs in Analysis

Here you have some classic tradeoffs: the more you build in the power variables that change multiple assumptions, the faster the analysis, but the less real and detailed the analysis. Generally powerful and fast changes are great for strategic planning, and detail is great for normal business planning. You can create what you need.

Customized Formulas and Tables
Insert New Tables (PREMIER version)

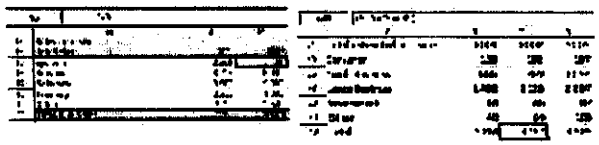
With the PREMIER version of BUSINESS PLAN PRO, you can insert a brand new empty table into your business plan, linking it to a topic. This lets you develop your own tables and add them to your business plan. Once you've inserted a new table, you can also link any cell in a new table into the entry areas of any of the main tables. The next example shows the use of a blank table.

? To Learn More About...	Search the Help Index for...
inserting a blank table-PREMIER version	insert table, link table, add table

Example: Linking Inserted Table to Sales Forecast

Figure 10-14 shows one example, linking from a new table into the Sales Forecast table.

FIGURE 10-14: LINK FROM USER-DEFINED TABLE INTO SALES



The example here shows how the User-defined table links back into the Sales Forecast table. You can add tables if you have the PREMIER *version.*

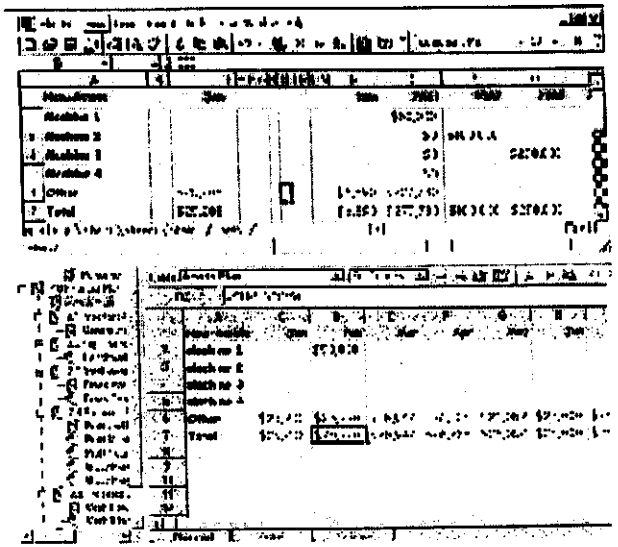
Here's how it is in detail:

- Select the target cell in the Sales Forecast. In the example, cell P15 is selected. That cell contains the projection for unit sales of systems in 2002.
- Type the equals sign, = into the cell (without quotation marks, parentheses, etc).
- Use the Table pull-down list to go to the user-defined table that contains the source cell (in this example, it's User 1).
- Click on the source cell. In the example, that's cell C40. The formula becomes **=User 1!C40**
- Press <ENTER>.

Example: Pasting from an Excel® Worksheet to a Blank Table

You can copy a range from an Excel worksheet and paste it into a user-defined table. Figure 10-15 shows an example of the Excel worksheet and the BUSINESS PLAN PRO user-defined table. If you want to preserve the formulas within the worksheet, it is an easy multi-step process.

FIGURE 10-15: PASTING TO USER-DEFINED TABLES FROM EXCEL®



The Excel worksheet on the top was pasted into the BUSINESS PLAN PRO *user-defined table on the bottom.*

1. In Microsoft Excel (the example was developed with Excel 2000), make sure that the spreadsheet area you want to paste contains only unprotected cells.
2. If you have any doubts, select the area you want to copy and paste, then use the Format menu, Cells command, and Protection tab to make sure those cells are not protected.
3. Within Excel, select and copy the source area you want to use in BUSINESS PLAN PRO.
4. Select BUSINESS PLAN PRO. Use the Plan Outline Insert tool from the toolbar to insert a new table attached to a topic. Select the cell you want to have as the upper left cell in the target range. Remember, those cells should be unprotected in Excel.
5. Use Edit > Paste Special > Paste All command. Your Excel spreadsheet will now be pasted into your BUSINESS PLAN PRO user-defined table.

Tips on Pasting from Excel® to BUSINESS PLAN PRO®

If you do work with this paste process, please remember these important tips and traps for pasting from Excel to BUSINESS PLAN PRO:

- A Copy and Paste from Excel to BUSINESS PLAN PRO copies values only, not formats or formulas. To copy and paste spreadsheet information completely, use the Paste Special command in BUSINESS PLAN PRO and chose Paste All to paste both formulas and formats.
- If you paste a formula from one worksheet containing an erroneous reference, you'll get a #REF error in the target worksheet. That's true in Excel alone, and it's also true when you paste from Excel into BUSINESS PLAN PRO. For example:
- If you copy the formula =C9 from cell C10 in Excel into cell C1 in BUSINESS PLAN PRO (or Excel), you get a #REF error. BUSINESS PLAN PRO wants to reinterpret the formula to refer to the relative row number, 9 is 1 less than 10, but when you paste into row 1 you don't have the possibility of a lower row number.
- Copy a formula =XYZ (referring to a range name not already in BUSINESS PLAN PRO) from Excel and paste it into BUSINESS PLAN PRO. BUSINESS PLAN PRO will behave like Excel does in this instance. It creates a new range named XYZ located in a position relative to the target cell.
- Copy the formula =Sales from Excel and paste it into BUSINESS PLAN PRO. BUSINESS PLAN PRO will create a new range named =Sales_2 and give the target cell the formula =Sales_2 . To make the cell refer to the range named Sales, you have to edit the formula manually.

Tips

No Links to External Files

The BUSINESS PLAN PRO spreadsheet is so compatible with Microsoft Excel that almost any function or formula that works in Excel will work in BUSINESS PLAN PRO. However, BUSINESS PLAN PRO cannot link formulas to external files outside of the plan. Excel can do this, but BUSINESS PLAN PRO can't.

Protected Cells Remain Protected after Copying

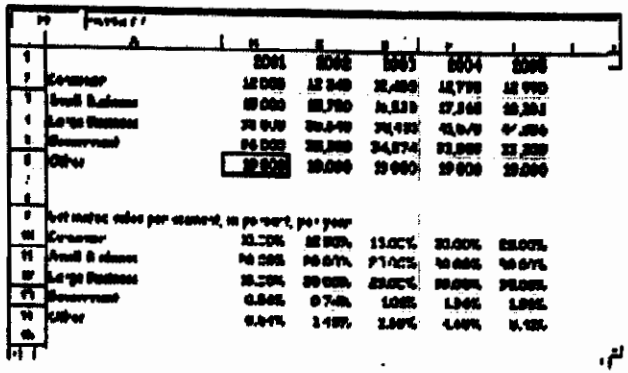
If you copy protected cells from Excel to BUSINESS PLAN PRO, they remain protected. You cannot access them to change them after they are copied.

Example: Linking Sales Forecast from the Market Forecast Table

For this example, the AMT computer store wants to develop a more detailed Sales Forecast for computer systems drawing from information, including its projected market size and its projected market share.

Figure 10-16 shows a customized AMT sample plan user-defined table.

Figure 10-16: User-Defined Table, Part 1



The formula shown in the edit bar picks up information from the Market Analysis table.

- Although the system continues to refer to this table as User 1 for linking purposes, we can rename it in the plan topics. For example, we could call it "Detailed sales assumptions" instead of "User 1."
- The top row contains years. Cell B1 has the formula =PS_startingYear which refers to a named range within BUSINESS PLAN PRO. C1 contains the formula =B1+1 .
- The cells in this section of the table link to the Market Analysis table, which contains projected total market numbers for different market segments. The cells in Figure 10-16, from A2 through P6, refer to the Market Analysis table. That means that if you decide to change the Market Analysis table for any reason, you don't have to retype.

Tips

For more detail on Forecasting

Please refer to *Part 4: Forecasting* in Hurdle: the Book on Business Planning. The book offers detailed tips on how to develop forecast numbers using a combination of research, analysis, common sense, and educated guessing. Click Resources button > Books > Hurdle to read the book in PDF format.

Example: Add Monthly/Quarterly Detail

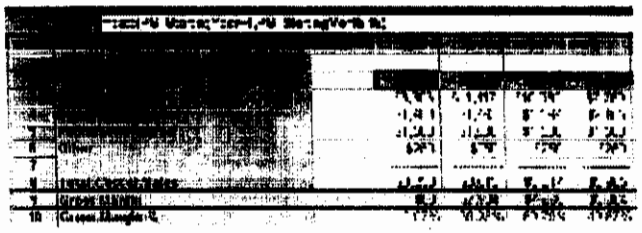
BUSINESS PLAN PRO has built-in financial analysis which includes monthly details for 12 months, then annual projections for up to five years. It doesn't build in 24 months or more of monthly detail, or more years of quarterly detail, for good professional reasons.

You can, however, use the programmability of BUSINESS PLAN PRO to add that kind of detail if your plan really needs it. That's part of the reason for including the facility to add additional worksheets (in the PREMIER version). Doing the second year in months may not be automatic, but it is a lot easier within BUSINESS PLAN PRO than starting all over again.

Option 1: Insert New Table (PREMIER version)

Here's a step-by-step example that sets up a second year of monthly detail for a Profit and Loss table. Figure 10-17 shows a portion of that second year table as it was programmed from scratch within BUSINESS PLAN PRO PREMIER.

FIGURE 10-17: MONTHLY TOTALS FOR SECOND YEAR



This example shows a second year Profit and Loss, programmed within BUSINESS PLAN PRO PREMIER *version using inserted new tables and mostly copy and paste.*

- Make sure your tables are set to show row and column headings (Tools > Options > Table).
  1. Insert the new table as part of your Profit and Loss section in the Plan Outline. Select the outline topic, go to Insert > Table > New. Name it "Profit Year 2."
  2. Go to your Profit and Loss table and copy from the row containing Sales down through the bottom row of the table. Note the row numbers involved (probably rows 3 through 35 or 40).
- Go to the new table and select the same rows. Use the Edit > Paste All command.
- Select the cell above the first column of numbers (C2 in the example), and make its formula using the date function. The formula:

  =date(PS_StartingYear+1,PS_StartingMonth,15)

  automatically makes the starting month the first month of the second year of the plan. The date function goes year, month, day. Make sure the day is 15, not 1.
- Select cell D2 and make its formula: **=C2+30.4**

  This will automatically catch the next month. If your starting day is 15 and you add 30.4 to each month column, the columns will automatically show months.
- Select cells C2:D2 and use the Format menu to set fonts, patterns, borders, and most importantly, the date format. Format > Cells > Number > Date will set the date format to show, for example, MM-YY.

- Select the rest of the cells in this row and use the Edit > Fill > Right command to copy that formula through the rest of the year.

  The resulting table is not protected, so you can work though the data cells however you want. For example, you can leave the sales row unprotected and type in data, or link it to the second year annual sales with formulas, or create yet another table to contain second-year sales.
- Using formulas, link the full-year summaries you need back into the Year 2 areas of the main financial tables.
- Print the additional monthly tables you've added as appendices.

You can use the inserted table facility to make your second year tables as detailed as you want. If necessary, add a second year sales forecast, personnel plan, profit and loss, and cash flow. You can use the main tables as examples, copying and pasting, then modify the years and the formulas as required.

TIPS

Import-Export Shortcut for Second Year in Months

You can export any table and import it back into your plan to make a second copy. Make second copies of your sales, personnel, profit and loss, cash flow, and balance sheets and tune the formulas to make a second year by months.

Option 2: Using Two Plans in BUSINESS PLAN PRO®

Another way to have a second year of detail is to make a second plan, using BUSINESS PLAN PRO. Make the opening balances of the second plan the same as the end-of-first-year balances of your first-year plan. Type them as starting balances in either Start-up (for a start-up company) or Past Performance (for an ongoing company).

To make the typing easier, you can use the File > Import command and from the pull down menus chose plan tables to import. Or you can export your tables to Microsoft Excel, open the exported workbook in Excel, and, with both Excel and BUSINESS PLAN PRO open, copy the selected items into BUSINESS PLAN PRO.

TIPS

Expenses but no Sales?

You could start a plan with just the Profit and Loss for expenses in the first year, then start a second plan, import the Profit and Loss of the first into your second.

Option 3: Using Microsoft Excel® for More Monthly Detail

To use Microsoft Excel to build a system of additional years, keeping the functionality of BUSINESS PLAN PRO but adding the flexibility of Excel:

- Export your BUSINESS PLAN PRO tables to an Excel Workbook.
- Open the workbook in Excel, set options to show sheet tabs, and save in the latest Excel format.
- With both BUSINESS PLAN PRO and Excel open, copy the ending balance items from your Balance Sheet at the end of the first year in BUSINESS PLAN PRO, and paste them into the Starting balances of the Balance Sheet within Excel.

Revise Sales, Profit and Loss, and whatever other tables you want to include.

Watch the links and the programming if you intend to use these tables as originally programmed. Microsoft Excel allows you to change any formula, so you don't have the protection you have within BUSINESS PLAN PRO.

Also, you need to check for your errors, because you're outside of BUSINESS PLAN PRO.

Use the additional monthly detail however you want. You can refer to it within the text in BUSINESS PLAN PRO and print it from Excel, name it as an appendix, and include it within your plan.

TIPS

No Support for Excel Worksheets

After you export a BUSINESS PLAN PRO worksheet to Excel, Palo Alto Software can no longer provide technical support. What happens in Excel is your own responsibility. Excel is an applications programming language.

24 Months, Three Years in Quarters, Etc.

Plan options for 24 straight monthly projections, or two years in months and three years in quarters, for example, are not built into BUSINESS PLAN PRO because relatively few plans need them and they would add major file size and memory implications.

We worry that if we included this kind of detail in the software, everybody would think they need it, and they don't. Few businesses have the means to project that far in the future.

Example: Total Sales Based on Percent of Total Market

In the second table block shown in Figure 10-18, we project the percent of total market expected to purchase systems within each given year. As with the total potential market projections, these are a combination of research, analysis, common sense, and educated guessing.

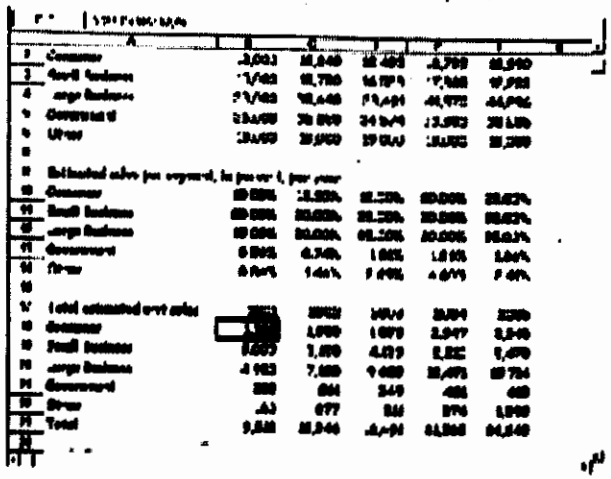
These cells don't use formulas; they are assumptions typed manually into the cells.

Calculated Unit Sales

The third block of cells calculated the estimated unit sales for the geographic market. For each market segment, it multiplies percent of total by total market to calculate projected total sales for the segment.

The illustration shows the formula for cell B18. It multiplies the unit number in B2 times the percentage in B10, and uses the BUSINESS PLAN PRO ROUND function to round that calculation to even numbers.

FIGURE 10-18: USER-DEFINED TABLE, PART 2



In the example, the estimated unit sales are produced by multiplying market by percent penetration.

The ROUND Function

The formula shown in Figure 10-18 rounds the calculation to the nearest whole number:

=ROUND(B10*B2,0)

Here are more examples of how this function works:

- **=ROUND(B10*B2,1) rounds to a single decimal.**
- **=ROUND(B10*B2,-2) rounds to the nearest hundred.**
- =ROUND(B10*B2,-3) rounds to the nearest thousand.

The SUM function

The formula for cell B23 in Figure 10-18 isn't shown, but it is an excellent example of the classic SUM function in a formula. The actual formula is: **=SUM(B18:B22)**

The formula calculates exactly as it seems: the sum of the cells included in the summation range. These SUM formulas are common in spreadsheets, and throughout BUSINESS PLAN PRO as well. The SUM formula is used to sum unit sales, total sales, and total cost of sales. It's used to sum rows in the Personnel Plan, in the Profit and Loss, the Cash Flow, and Balance Sheet. It is quite common throughout BUSINESS PLAN PRO.

There is an illustration of the SUM function in Figure 10-19, showing the formula for cell B40 of the same worksheet, which sums the range (B35:B39).

Market Share and Sales

The detailed market model then continues into its fourth section, which contains percentage assumptions of AMT's share of the local market. Figure 10-19 demonstrates this.

The fifth, and final, section of the model multiplies the total market projected sales by the assumed AMT percentage market share, in order to project AMT sales of systems. The final numbers in row 40 of that model are then linked back into the Sales Forecast, which was associated with Figure 10-14 earlier in this discussion.

FIGURE 10-19: USER-DEFINED TABLE, PART 3

	A	B	C	D	E	F	G
[illegible]	Consumer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Small Business	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Large Business	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Government	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Other	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]							
[illegible]	Estimated share per segment, in percent, per year						
[illegible]	Consumer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Small Business	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Large Business	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Government	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Other	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]							
[illegible]	Total estimated unit sales	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Consumer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Small Business	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Large Business	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Government	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Other	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

In this third view of the sample, this company's unit sales are estimated by taking total market units and estimated market share.

Example: Assets and Depreciation

Although we recommend a much simpler treatment of assets and depreciation, Figure 10-20 shows a user-defined table (PREMIER version) that uses depreciation functions to help manage assets.

TIPS

Depreciation Details

Depreciation detail demands a lot of fine tuning for very little change in the resulting numbers. It also depends on tax rules. Meanwhile, your sales forecast has more uncertainty on a higher scale. The depreciation example shows how to do depreciation detail and why you probably shouldn't bother. This is planning, not accounting.

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To Learn More About...	Search the Help Index for...
Inserting a blank table	Insert table, link table, add table

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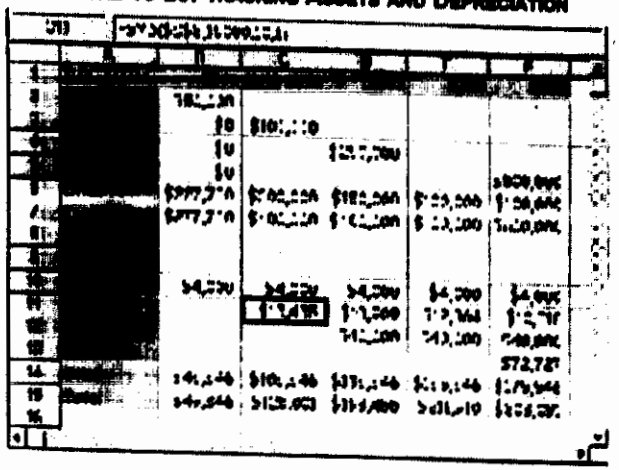
FIGURE 10-20: TRACKING ASSETS AND DEPRECIATION



This user-defined table (PREMIER version) tracks assets and depreciation in detail. Note the use of the SYD depreciation function in the edit bar, for cell C11.

In this case, capital assets are so important to the business' overall financial position that we used a user-defined table to track them directly. We also used the built-in depreciation functions to handle depreciation automatically:

- We depreciate Machine 2 with the sum of the years digits (SYD) depreciation method, a built-in depreciation function compatible with Microsoft Excel depreciation functions. The syntax is as shown: =SYD(purchase price, salvage value, years of life, period)
- We copied that formula over to the rest of the row to calculate depreciation for that machine for five years.
- We depreciated Machine 1 according to the straight-line method, another built in function. The syntax for that function is: =SLN(purchase price,salvage value, years or life) which means that the actual formula in cells B10:F10 is: =SLN(B82,10000,10)
- We purchase Machines 3 and 4 according to the assumptions shown in the illustration, using the depreciation functions as well. Machine 3 gets straight-line depreciation and Machine 4 gets SYD depreciation.
- For the last line, which summarizes all other capital expenses for the various years, we depreciate by taking 20% of the value of the purchase in each year, for each of the successive years. The underlying assumption is that all purchases are assets good for five years, depreciated straight line at 20% per year, with no salvage value.

Balance Sheet - Adding Detail (PREMIER)

The BUSINESS PLAN PRO standard Balance Sheet is streamlined and powerful. It doesn't include the row-by-row detail found in many company accounting balance sheets. This simplification is a valuable feature of BUSINESS PLAN PRO, because it relates to the use of the financials in business planning. More detail in the balance sheet means we have to have more detail in the cash flow. Cash is the most critical element; you need a strong Cash Flow, that's easy to understand and work with.

Additional Assets or Liabilities

The previous section offers an example of developing additional detail on long-term assets, with particular attention to the details of depreciation. Figure 10-20 shows an example. You can do the same kind of detailed tracking for liabilities or different levels of assets. In any case, insert a table to track in detail and then link the results back into the main tables.

"Goodwill" as an Accounting Concept

When a company purchases another company for more than the value of its assets—which is quite common—the difference is recorded as an asset named "Goodwill." This is not a general term for the value of a brand, for example, but a very specific accounting term.

For example, if one business buys another business for $1 million, then it needs to show the $1 million spent as an asset. If there are only $500 thousand in real assets, the accounting result should be $500,000 in real assets purchased and another $500,000 in "Goodwill."

Goodwill is normally amortized over 5 to 40 years, depending on variables determined by the accountants. In BUSINESS PLAN PRO you record the amortization of Goodwill as depreciation. If you need to set it apart from other depreciation, then use a user-defined table.

Monthly Headings in a New Table

Linking information via formulas is convenient, and you can do that with dates and the date function automatically built into BUSINESS PLAN PRO. Figure 10-17 in the previous section shows an example. Here are some additional details.

- The range name "PS_StartingYear" variable is a four-digit number for the starting year of the plan.
- The range name "PS_StartingMonth" variable is a number between one and 12, the starting month of the plan.
- The date function =date(year,month,day) will work with both these variables to give you dates according to the starting dates of your plan.
- The Date and Number format options are available in the Format > Cells menu.

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Sensitivity Analysis (PREMIER version)

Change your assumptions, and record the changes that result. How sensitive is your business plan to lower levels of sales? Higher costs? More time waiting to collect the money? That's sensitivity analysis.

Spreadsheets like the one now built into BUSINESS PLAN PRO are a very powerful tool for sensitivity analysis. Make the changes and record the impact.

Example: Sensitivity Analysis

Figure 10-21 shows a useful sensitivity analysis done with a single new table inserted into the plan as a place to record changing results (PREMIER version). To do this with your plan, first insert a new table and then change assumptions and record the impact.

In the case shown here, the assumptions are in the Cash Pilot table. Change the main assumptions in that table and record the minimum cash balance from the Cash Flow.

FIGURE 10-21: SENSITIVITY ANALYSIS SAMPLE

This user table records results of a cash flow sensitivity analysis.

Develop Your Own Sensitivity Analysis

You can see from the example in Figure 10-21 that the possibilities of sensitivity analysis are virtually unlimited. You can use different power variable settings (Figures 10-9 to 10-13), different plans and plan names, or other options to change assumptions and record the results.

Sensitivity Analysis is "What-If"

There isn't a big difference between sensitivity analysis and "what-if" analysis. When experts talk about sensitivity, they generally mean a more rigorous and organized analysis of how some variables change when other variables change. When business people talk about sensitivity, they often mean the same thing as "what if" analysis; that is, what happens to cash flow if sales drop?

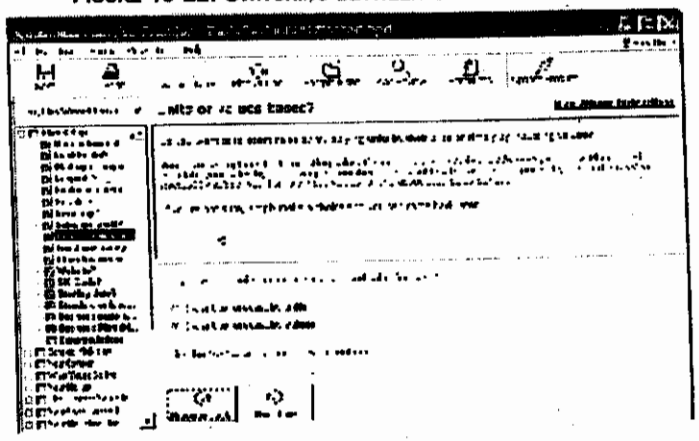
Dealing with Scenarios (PREMIER version)

Many business plan situations involve different scenarios. The simplest and in many aspects the most powerful way to manage scenarios is with different plans. Each plan is a complete file on its own, and each plan contains a scenario. The normal way to develop scenarios as separate plans is to finish the main plan as the most likely scenario, then use the File > Save As command to save it again with a different name, and make the new one a different scenario. For example, when the main plan is done, save it first as "pessimistic" and then lastly as "optimistic," and manage each of those offshoots as separate scenarios.

Two Built-In Sales Scenarios (PREMIER version)

Chapter 6 explains how the EasyPlan Wizard in PREMIER version gives you the choice of sales forecasts, either value-based or units-based, for every plan. It doesn't explain that you can also use these two forecasts to manage optional scenarios. That wasn't the original intention, but it works. Try it. Figure 10-22 shows you how the EasyPlan Wizard switches between the two forecasts.

FIGURE 10-22: SWITCHING BETWEEN SALES FORECASTS



In PREMIER version the EasyPlan Wizard lets you switch between two sales forecasts, one structured more simply than the other. You can use this facility to build two scenarios into your plan.

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You'll see, when you try it, that each of the forecasts is separate, and whichever is selected links automatically into the Profit and Loss table. Normally you make a choice of structure at the time that you set up your plan. As a special case, however, you can manage two forecasts by making both of the two options significant.

Multiple Personnel Scenarios (PREMIER version)

As with the Sales Forecast, the BUSINESS PLAN PRO PREMIER version offers three different Personnel Plan options. They switch automatically with the EasyPlan Wizard. Try it:

- Tell the EasyPlan Wizard you don't want to divide expenses by categories, and you get a standard personnel forecast as a simple list.
- If you divide by categories, your personnel goes to a different forecast, broken into four expense categories. The data here is completely different from the simple plan where expenses aren't broken into categories.
- If you choose to plan personnel with the "Personnel by People" method, you have yet a third forecast for personnel.
- You can switch between these different personnel plans by changing options with the EasyPlan Wizard. The data stays with each personnel plan.

Using Plan and Actual as Two Scenarios (PREMIER version)

The BUSINESS PLAN PRO PREMIER version includes a plan-vs.-actual analysis feature, another tool for developing scenarios within a given plan. Use your main plan as the standard scenario, and the "Actual" area as a second scenario. You can switch between the two easily from within your plan, and you can use the "Variance" area to show the difference between them.

Subscriptions or Churn Rate Forecasts (PREMIER version)

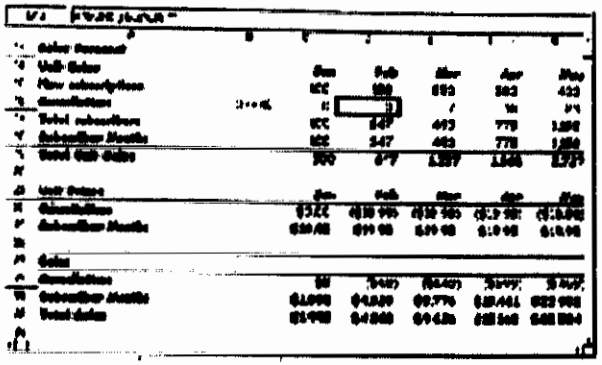
TIPS

Who Needs a Subscription Sales Model?

Whenever a business sells subscriptions, memberships, or similar services that involve continuing monthly payments, that's a subscription model. It takes some special analysis to separate the running months' revenue from new customers. Subscriptions may be sold annually, but the related sales are essentially monthly.

Figure 10-23 shows the first portion of a subscription sales model, also called Churn Rate model. It calculates subscriber sales for a $19.95 monthly membership business. The EasyPlan Wizard sets the Sales Forecast for a units-based forecast, not value-based. In the units area, one row shows new subscribers, one row shows cancellations (attrition), and one shows total subscribers. In the unit prices, a subscriber pays $19.95 monthly and a cancellation causes a single-month credit. You can see the resulting Sales Forecast.

FIGURE 10-23: SUBSCRIPTION SALES (CHURN RATE)



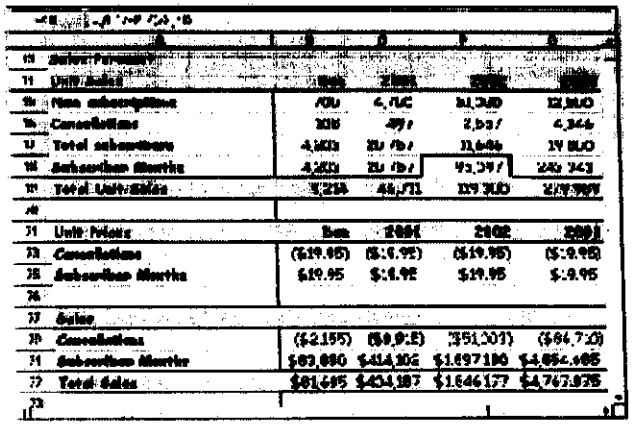
This example shows a Sales Forecast for a subscription model. Customers subscribe for a year but the Sales enter the business as subscriber months.

You can see in this figure how the cancellation formula uses a percentage assumption (3%, in Column B) so you can vary the assumption to see the impact of different cancellation rates. The formula showing in the illustration uses the ROUND function to set the cancellations to single user numbers.

This is another good example of an input variable programmed into column B of the Sales Forecast. That makes changing assumptions easier. You can change the rate of cancellation in this sales forecast by changing that single cell.

Subscriber months are fairly easy for monthly projections, but the system gets more complex when you need to translate subscriber months into annual forecasts. Figure 10-24 shows a detailed treatment of the subscription or churn Sales Forecast for the years, instead of months. Some of the formulas require detailed explanation.

FIGURE 10-24: SUBSCRIPTION (CHURN) MODEL YEARS FORMULAS



For the annual subscriptions, each subscriber is 12 subscriber months. Notice that rows 22, 24, 28, and 30 are hidden.

- The new subscriptions estimate in 2002 (cell P15) is an input estimate. Be careful, if you are doing this kind of a forecast, to build in the growth. In this forecast the 10,000 new subscribers model may look ambitious, but at the end of the first year the business was picking up 700 new subscribers per month. At that rate the next year would bring in 8,400 subscribers (700*12). Therefore the 10,000 estimate is not as ambitious as it might seem at first glance.
- Cancellations in cells P16 and Q16 are also estimates, based on a percentage of cancellations from the subscriber base. How many people will cancel in a given year? If your business has history you might be able to turn to that history to estimate. If not, you might be able to research cancellations from other, similar business (publicly traded, perhaps, that have to

release such information). In either case, you need to make these assumptions clear and row 16 is how you do that.

- Cell P17 presents total subscribers at the end of the year, as a result of the formula: =N17+P15-P16 . The cell N17 in that formula contains the total subscribers at the end of the last month of the previous year. Cell P15 contains new subscribers for the year, and P16 contains dropouts. This isn't the number used to calculate revenue, but it is still an important number for marketing, and benchmarking. A subscription business needs to know how many subscribers it adds and loses. Many similar businesses, subscription-based or not, need to estimate their monthly "churn," as this is sometimes called.
- The formula in P17 needs to be adjusted for Q17, because of the impact of the annual numbers in column O. The correct formula for Q17 is =P17+Q15-Q16 .
- The formula for cell P18 needs to account for subscription months. These are paying months, and they are critical to calculating revenue. If you have 1,000 subscribers for a full year, they contribute 12,000 subscriber months. The formula in P18 is =((N17+P17)/2)*12 . This formula takes the average between the total subscribers at the beginning of the year, and total subscribers at the end of the year, and multiplies that average subscribers by 12 to calculate subscriber months.

This is not a perfect calculation. It creates a reasonable estimate. You could make that exact by developing another complete year of months. This approximation is good enough for planning purposes, however. In the end, no matter how detailed you make your future estimates, they are still estimates. We prefer to leave that fact obvious by not trying to bury estimated guesses in overwhelming detail.

As with row 17, there is a difference between column P and column Q in these formulas because of the impact of the annual column O intervening. The correct formula for cell Q18 is

=((O17+Q17)/2)*12 .

The effect of taking averages for these columns is appropriate to the level of certainty in predicting subscriptions two and three years into the future.

TIPS

Hiding Unused Rows with Zero Values

Figure 10-24 shows a good example of hiding rows you don't need. Although this Sales Forecast needs to keep track of new subscribers and total subscribers, there are no price or sales implications. We used the Format > Hide Row command to hide those rows that we didn't need.

Tax Rate Lookup (PREMIER version)

BUSINESS PLAN PRO includes a lookup function to deal with tax rates, if you want to make them more complex. Figure 10-25 shows a formula that compares the lookup value to the lookup table and calculates a rate as a result. This is a simple model of a detailed tax table.

Figure 10-25: Tax Lookup Table

	A	B	C
1	Lookup Value:	$125,000	
3	Lookup Table:	($50,000,000)	0.00%
4		$0	5.00%
5		$100,000	10.00%
6		$250,000	20.00%
7		$1,000,000	30.00%
9	Lookup Result:	10.00%	

The illustration shows the formula for the lookup as an example of how the formula works.

Figure 10-26 shows how a lookup formula can go into the tax rate assumption so that as profits go up, so do the tax rates.

Figure 10-26: Lookup in Action

General Assumptions

	Dec	2002	2003	2004
Short-term Interest Rate %	5.00%	5.00%	5.00%	5.00%
Long-term Interest Rate %	8.50%	8.50%	8.50%	8.50%
Tax Rate %	10.00%	10.00%	20.00%	[illegible]
Expenses in Cash %	14.00%	14.00%	14.00%	14.00%
Sales on Credit %	70.00%	70.00%	70.00%	70.00%
Personnel Burden %	15.00%	15.00%	15.00%	15.00%

The lookup formula in the tax rate changes rates automatically depending on the level of profits.

Additional Resources

?

To Learn More About...	Search the Help Index for...
Adding tables, inserting tables, user-defined tables	Add table
Spreadsheet overview: formulas, links, programming the tables.	Spreadsheet overview
Spreadsheet functions	Spreadsheet functions
Formulas to link from one table to another by referring to data	Linking tables
Range names, variables in range names, referring to range names in formulas	Range names
Locked cells, data entry cells, cell formats	Locked cells
Accessing locked row and column headers for direct editing and modifications	Table options
Depreciation and financial functions	Financial Functions
Import/Export a table	Import, Export

Conclusion: It's Your World

There's no reason using a business plan software package should limit your ability to customize your business plan. You can stick with the default or make it as sophisticated as you need. In the end, it is your plan. The software is a tool, but you are the craftsperson who uses that tool.

Working with Quicken®

Import MiniPlan to BUSINESS PLAN PRO® 11.3
Matching the Chart of Accounts 11.4
Profit & Loss - Expense List Comparison 11.5
Managing the Balance Sheet 11.8
Developing Budgets 11.9

Quicken® is a registered trademark of Intuit Corporation.

CHAPTER 11: WORKING WITH QUICKEN®

Quicken® bookkeeping and BUSINESS PLAN PRO® *are a good compliment to each other. Planning and accounting deal with the same underlying business numbers, but from different directions.*

Planning looks from today ahead into the future, while accounting looks from today backwards into the past. A good business does both well. The two applications have different purposes, but both are related to the proper running of a business.

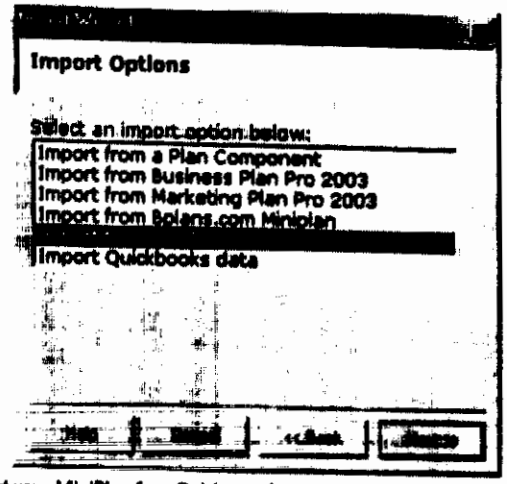
For customers of both Quicken and BUSINESS PLAN PRO, *now you can share information between the two programs. The examples in this chapter show you how.*

Import MiniPlan to BUSINESS PLAN PRO®

Quicken® includes a special tool called the MiniPlan that is designed to work with BUSINESS PLAN PRO. The MiniPlan is available on the Quicken CD and also on the Internet at www.quicken.com and www.bplans.com. The MiniPlan gives you a head start with your initial assessment, including summary, objectives, keys to success, initial market analysis, and break-even analysis.

Some users develop a MiniPlan first, then move to BUSINESS PLAN PRO. If you haven't already done a MiniPlan, don't bother—it's built into BUSINESS PLAN PRO as the initial assessment. If you have done a MiniPlan, then instead of retyping that material, you can import it directly into your business plan. Figure 11-1 shows the first step:

FIGURE 11-1: IMPORTING THE MINIPLAN



You can import your MiniPlan from Quicken or from the Internet.

- Fill in the information in the form.
- Follow the menus to find your MiniPlan and include it in your business plan.

The result will be an automatic input, so you don't have to redo what you've already typed. Your business plan will then absorb the following sections from the MiniPlan: Executive Summary, Objectives, Keys to Success, Market Analysis, Break-even Analysis.

Matching the Chart of Accounts

One core element of every bookkeeping or accounting system is the chart of accounts. The chart of accounts is a list of categories of assets, liabilities, capital, sales, costs of sales, and expenses. Quicken calls these categories.

Set Categories in Both Applications

Match categories between your Quicken bookkeeping and your business plan. This builds a better link between planning and results. It makes your plan more realistic, and your results more valuable for decision making.

Categories in Quicken®

In Quicken, you set the categories as you work with your checking, invoices, bills, etc.

Categories in BUSINESS PLAN PRO®

In BUSINESS PLAN PRO, you create the categories for your Sales Forecast and Profit and Loss tables using the Edit > Insert Row and Edit Label commands. Insert rows first, then use the Edit Label command to give the row a name.

TIPS

Recommended Sequence

Generally you'll find it easier to develop your categories in Quicken first and then match them in BUSINESS PLAN PRO. The Quicken categories will relate more directly to your bookkeeping needs. You will be able to match them in BUSINESS PLAN PRO.

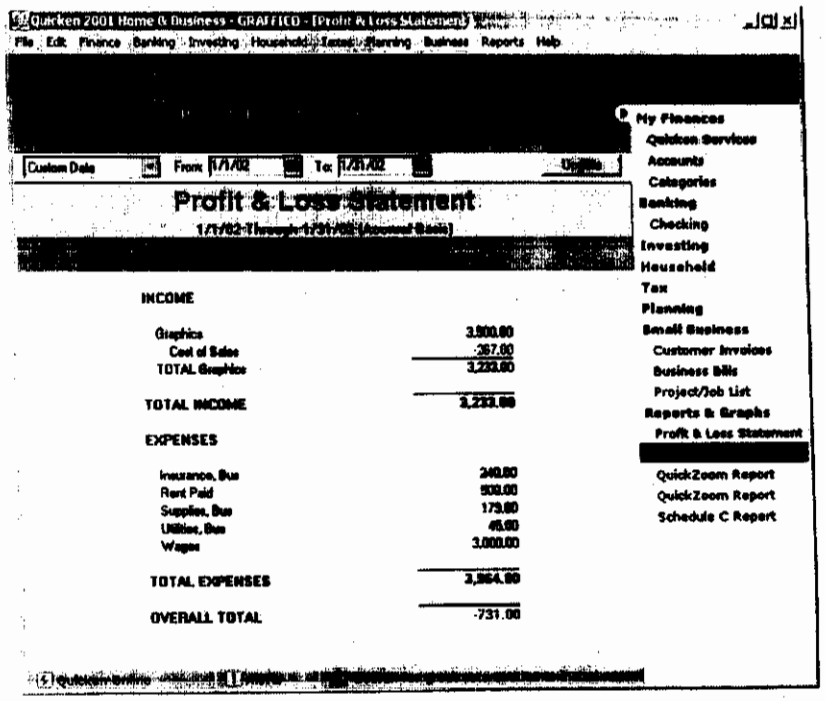
Profit & Loss - Expense List Comparison

In the following illustrations, you can see how the order of expenses is different between Quicken and BUSINESS PLAN PRO.

Quicken® - Profit & Loss Expenses

Figure 11-2 shows the Profit and Loss report produced by Quicken.

FIGURE 11-2: QUICKEN® PROFIT AND LOSS REPORT

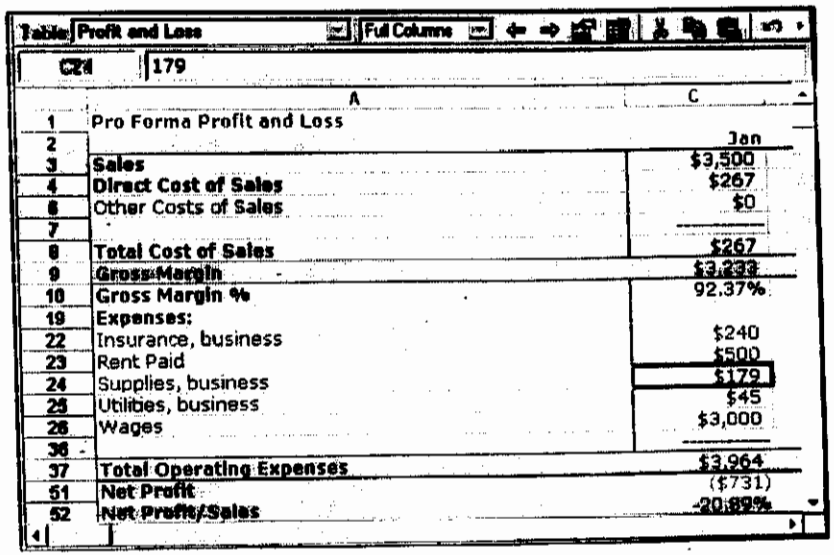


The order of the Quicken report depends on the categories you establish in your Quicken files.

BUSINESS PLAN PRO® - Profit & Loss Expenses

Figure 11-3 shows the Profit and Loss statement in BUSINESS PLAN PRO.

FIGURE 11-3: BUSINESS PLAN PRO® PROFIT AND LOSS



	A	C
1	Pro Forma Profit and Loss	
2		Jan
3	Sales	$3,500
4	Direct Cost of Sales	$267
6	Other Costs of Sales	$0
7		
8	Total Cost of Sales	$267
9	Gross Margin	$3,233
10	Gross Margin %	92.37%
19	Expenses:	
22	Insurance, business	$240
23	Rent Paid	$500
24	Supplies, business	$179
25	Utilities, business	$45
26	Wages	$3,000
36		
37	Total Operating Expenses	$3,964
51	Net Profit	($731)
52	Net Profit/Sales	-20.89%

This illustration shows the corresponding BUSINESS PLAN PRO *Profit and Loss table. Rows 20 and 21, which contain no data, are hidden by the Format > Row > Hide command.*

Matching Expense Order

There are normally differences between the two lists:

- Quicken organizes expenses in alphabetical order, while BUSINESS PLAN PRO organizes according to however you choose to name the rows. Therefore we recommend that you keep your BUSINESS PLAN PRO expenses in alphabetical order, to match.
- BUSINESS PLAN PRO separates interest and taxes so it can show Profit Before Interest and Taxes. Quicken doesn't separate these items. Interest and taxes appear in reports

as operating expenses. To make the BUSINESS PLAN PRO format match the Quicken statements, follow these steps:

1. On your General Assumptions table, set tax rates and interest rates to zero. This will make your BUSINESS PLAN PRO tax and interest rows also zero.
2. On the Profit and Loss table in BUSINESS PLAN PRO, use the Format > Row > Hide command to hide those rows.
3. Use operating expense rows, in proper alphabetical order, to estimate interest and taxes. Your business plan will match the Quicken statements.

- BUSINESS PLAN PRO normally gets its personnel expenses from the Personnel Plan and puts them at the top of the list of operating expenses, in a row named "Payroll." Quicken, on the other hand, treats wages as another operating expense. If you want to match the Quicken statements more closely in BUSINESS PLAN PRO, you have several options:
  1. Ignore your Personnel Plan table, unlink it from the plan, and use Format > Row > Hide to hide the Payroll row in your business plan. Add another row in operating expenses for wages, and type your estimates directly into that row. Keep wages in alphabetical order to match the Quicken report.
  2. If you want to use the Personnel Plan table in your plan, you can. Payroll will show automatically. Expenses will not be in exactly the same order in BUSINESS PLAN PRO, because Payroll is at the top, regardless of alphabetical order. However, the bottom line numbers will match.
  3. You can also make the formats match closely, without losing the Personnel Plan table. Add a row in operating expenses that subtracts payroll, hiding both the automatic payroll row and the one that subtracts the same amount; then add another operating expense row in correct alphabetical order, name it "Wages" to match Quicken, and put the formula "=payroll_expense" into that new row.

- BUSINESS PLAN PRO must have depreciation estimates go into the row named Depreciation. It needs to know about depreciation for Cash Flow calculations. Therefore, if you handle depreciation in your Quicken bookkeeping as an expense, then you must also include depreciation in the business plan, and include it in the row already named depreciation. Even if that puts depreciation out of order in the business plan, when compared to the Quicken plan, it is still needed for proper cash flow planning.

TIP

Bringing Planning and Accounting Together

Quicken and BUSINESS PLAN PRO have different but related purposes. The key to bringing them together is being able to match your Quicken bookkeeping to your BUSINESS PLAN PRO worksheets. This gives you a very powerful tool for budgeting and revisions.

Managing the Balance Sheet

Your Balance Sheet in Quicken will almost always be more complicated than in BUSINESS PLAN PRO. Consider the BUSINESS PLAN PRO Balance Sheet table as a summarized, streamlined version which is ideal for business planning. Don't expect it to be exactly the same because the Quicken Balance Sheet depends on expanding into more detail.

You should be able to reconcile the two formats by summarizing Quicken details with BUSINESS PLAN PRO.

Total Assets:

Start with total assets, and divide them first into the summarized categories in BUSINESS PLAN PRO. Here are some helpful details:

- Cash in BUSINESS PLAN PRO should include all of your business' liquid assets: all checking and savings accounts managed by the business, plus money-market funds, and money in real cash (coins and bills).
- Accounts Receivable and Inventory are summaries. You don't need to divide them into detail in BUSINESS PLAN PRO, because you have Quicken for the detailed management.
- Other Short-term Assets is a holding place for whatever else you have as short-term assets. For simplification's sake, hold all depreciation for long-term assets (even if you do have short-term assets, you do depreciate, and you don't have long-term assets). Remember the difference between planning vs. tax reporting and detailed accounting.
- Make sure the totals add up. When in doubt, look for short-term assets and long-term assets, adjusted for inflation. Fit the asset base into the BUSINESS PLAN PRO categories.

Total Liabilities:

Next, make sure your total liabilities match, then divide them into the BUSINESS PLAN PRO Balance Sheet using these hints:

- Accounts payable are all of your bills due. Include liabilities like credit card balances.
- Current Borrowing is for bank loans, bank lines of credit, accounts receivable financing, inventory financing, and credit card balances if you don't include them in Accounts Payable.
- Other Short-term Liabilities is for all other liabilities that don't fit into the first two categories. This is where you put all interest-free debt, such as loans from founders, or accrued taxes (if you don't have them in Accounts Payable).
- Make sure the liabilities total matches your Quicken total. If not, then the numbers are not right. BUSINESS PLAN PRO mainly handles totals, so just divide the details into the right categories.

Finally, make the capital match as well. Paid-in Capital is actual money invested. Earnings are current-period earnings, as in the present year. Retained Earnings are whatever is required to make capital equal to assets minus equity.

Developing Budgets

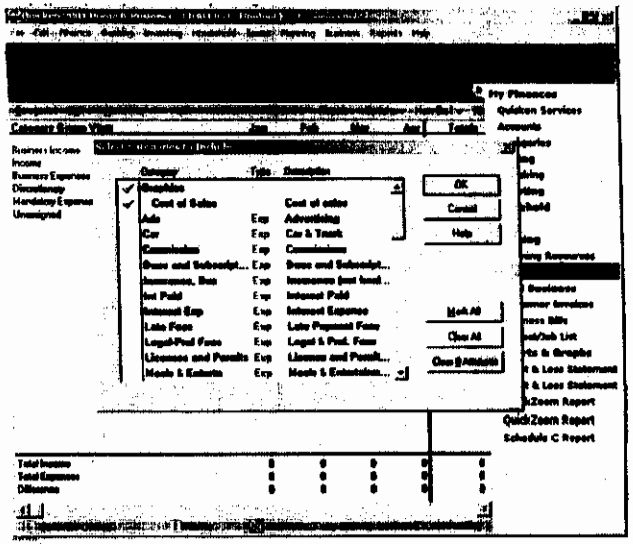
If you match categories in both Quicken and BUSINESS PLAN PRO, you have a choice:

- Develop budgets in BUSINESS PLAN PRO and transfer them to Quicken. Let Quicken handle the plan vs. actual analysis.
- (PREMIER version) Develop your business plan in BUSINESS PLAN PRO PREMIER, run your bookkeeping with Quicken, record actual results from Quicken into BUSINESS PLAN PRO PREMIER. Let BUSINESS PLAN PRO PREMIER handle your plan-vs.-actual analysis.

From BUSINESS PLAN PRO® to Quicken®

In this option, Figure 11-4 shows the budget area of Quicken with the settings to select the categories included. If your categories match, you'll be able to simplify typing your business plan budget into Quicken. The key is making the categories match so that the information also matches. Open your business plan and your Quicken bookkeeping, find the budget area in Quicken, and copy from BUSINESS PLAN PRO to Quicken. The Quicken budgeting is a simple one-by-one process.

FIGURE 11-4: QUICKEN® BUDGET



The Quicken budget lets you select the categories you want to work on. Use these to match your categories in BUSINESS PLAN PRO.

From Quicken® to BUSINESS PLAN PRO® (PREMIER version)

Plan vs. Actual

With the categories set to match, you can then use your plan-vs.-actual tables in BUSINESS PLAN PRO PREMIER to manage business plan results. Figure 11-5 shows the variance (the plan-vs.-actual comparison) for the examples shown in figures 11-2 and 11-3.

FIGURE 11-5: VARIANCE FROM QUICKEN® TO BUSINESS PLAN PRO®

C6 0

Profit and Loss (Income Statement)	Jan	Feb	Mar
Sales	$2,500	$0	$0
Direct Cost of Sales	($217)	$0	$0
Other	$0	$0	$0
Total Cost of Sales	($217)	$0	$0
Gross Margin	$2,283	$0	$0
Gross Margin %	100.68%	0.00%	0.00%
Operating expenses:			
Advertising/Promotion	$100	$0	$0
Office Rent	$0	$0	$0
Payroll Expense	$0	$0	$0
Payroll Burden	$450	$0	$0
Depreciation	$0	$0	$0
Utilities	$5	$0	$0
Insurance	($240)	$0	$0
Other	($79)	$0	$0
Total Operating Expenses	$236	$0	$0
Profit Before Interest and Taxes	$2,519	$0	$0
Interest Expense Short-term	$0	$0	$0
Interest Expense Long-term	$0	$0	$0
Taxes Incurred	($813)	$0	$0
Extraordinary Items	$0	$0	$0
Net Profit	$1,707	$0	$0

This variance analysis results from typing the numbers from the Quicken report in Figure 11-2 into the Actual Profit and Loss table in Figure 11-3. BUSINESS PLAN PRO PREMIER does the variance automatically.

Implementation depends on managing results, and variance is critical. The link between bookkeeping and planning is part of what makes that work. For more on implementation, see Chapter 9, Planning and Implementation, in this manual.

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Working with QuickBooks®

For QuickBooks Pro or QuickBooks Premier 12.3
Matching the Chart of Accounts 12.4
The QuickBooks Pro Import 12.6
After the QuickBooks Import 12.12
Developing Your Plan, After the Import 12.16
Developing and Managing Budgets 12.18

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CHAPTER 12: WORKING WITH QUICKBOOKS®

QuickBooks® is the small business standard for bookkeeping and accounting. Far more small businesses keep books with this application than with all others combined.

If you use QuickBooks Pro or QuickBooks Premier for your bookkeeping, you can also work easily with a business plan in BUSINESS PLAN PRO® *that matches the bookkeeping system in QuickBooks. You can import your sales, cost of goods, and expense categories automatically, so you don't have to retype. You can also use past data from QuickBooks as a starting point for estimating future results.*

Remember, however, that planning is different from accounting. BUSINESS PLAN PRO *gives you a starting point for future estimates, not a substitute for detailed accounting statements of past results.*

For QuickBooks® Pro or QuickBooks® Premier

BUSINESS PLAN PRO® has a QuickBooks® Pro import function which gives you an optimized import that pulls your major categories and useful information from your QuickBooks (although this applies only to the QuickBooks Pro or QuickBooks Premier versions of QuickBooks). It doesn't attempt to duplicate your bookkeeping or accounting functions.

TIPS

Import from QuickBooks Pro for forecasting, and categories, not exact past amounts.

The QuickBooks import will not give you exact duplicates of your QuickBooks statements. There are timing issues that change amounts slightly from month to month. It will give you categories, and close approximations you can use to forecast the future.

Here's what the QuickBooks Pro import function will get from your QuickBooks Pro data:

- It will import your QuickBooks categories for sales, costs of goods, expenses, and other income and expenses.
- The import will match major categories only, not subcategories. Accounting information for subcategories will be summarized in the major categories.
- As an option, which you control, it gives you quick estimations of future amounts by taking approximate past amounts and applying growth rates. The approximate amounts are only slightly different from accounting totals.
- As an option, it gives you your most recent balance and puts it in the Past Performance table where you can use it to estimate the ending balance of the last period before the plan starts.

TIPS

Bringing Planning and Accounting Together

QuickBooks and BUSINESS PLAN PRO have different but related purposes. The key to bringing them together is being able to show the same categories in your BUSINESS PLAN PRO projections as in your QuickBooks bookkeeping. This gives you a very powerful tool for planning and management.

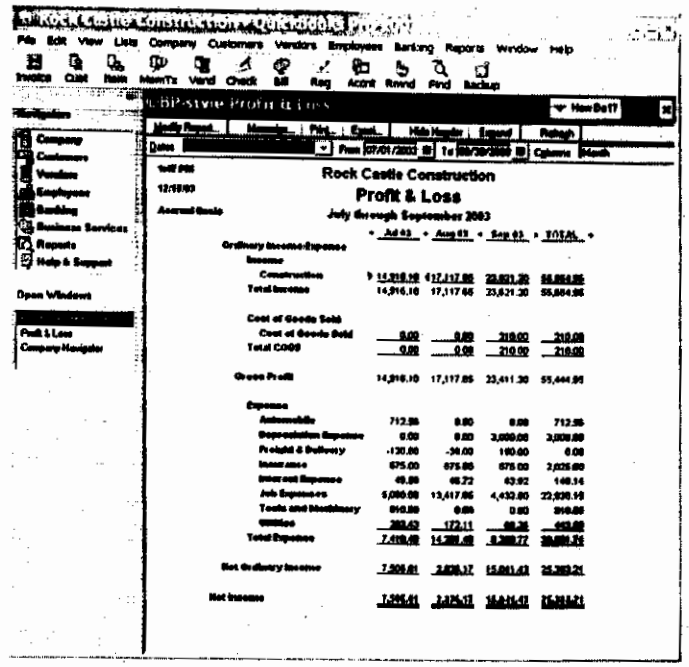
Limitations When Using QuickBooks® BASIC

The BUSINESS PLAN PRO QuickBooks import depends on internal capabilities of QuickBooks Pro and Premier versions, not available in QuickBooks Basic version. If you use QuickBooks Basic and want the additional compatibility for your BUSINESS PLAN PRO, contact Intuit to upgrade your QuickBooks. Contact information is available at www.QuickBooks.com. Without the upgrade, however, you can still work easily with your QuickBooks data, by using the flexibility of BUSINESS PLAN PRO to match your categories in QuickBooks. You can follow the matching chart of account details and create your own QuickBooks capabilities just by adjusting row names to categories.

Matching the Chart of Accounts

Working these two applications together starts with automatically matching the categories so your future plan will match your past results. The import from QuickBooks will set your categories in both applications so they match well enough for analysis and management tracking. Figure 12-1 shows the Profit and Loss in QuickBooks. Figure 12-2 shows how this can look almost identical in BUSINESS PLAN PRO.

FIGURE 12-1: QUICKBOOKS® PROFIT AND LOSS



The QuickBooks Profit and Loss is one of its standard reports. This is the condensed Profit and Loss for a fiscal quarter. Note that in this version the categories are collapsed, not expanded.

Some fine tuning is necessary. Before we imported from QuickBooks Pro for this example, we first set the categories to include a first and a last category-matching the first and last categories in the QuickBooks data. That meant setting the first category to "Automobile," to match the

QuickBooks accounts, and setting the last category to "Uncategorized Expenses," for the same reason. Use the Table mode Edit Row Label and Delete Row features to make those changes.

After the import, we used the Format > Row > Hide command to hide a number of rows that had zero values, but were included in the categories import. For example, "Bad Debt" had no value to it, so it is hidden in row 23. Figure 12-2 shows the corresponding Profit and Loss table in BUSINESS PLAN PRO. It was produced by first setting the beginning categories then importing the data from QuickBooks as explained in the rest of this chapter. The numbers shown are taken from previous results, but multiplied by an assigned growth rate. This is not a statement of past results, but a plan for the future.

FIGURE 12-2: MATCH BUSINESS PLAN PRO® WITH QUICKBOOKS®

	A	J	K	L	M	N	O
1	Pro Forma Profit and Loss						
2		May	Jun	Jul	Aug	Sep	[illegible]
3	Total Income	$9,000	$14,400	$16,400	$18,000	$22,000	$146,701
8	Cost of Goods Sold	$72	$72	$0	$0	$221	$220
9	Gross Profit	$9,728	$14,328	$16,400	$18,000	$21,779	$146,479
10	Gross Profit %	99.27%	99.50%	100.00%	100.00%	99.15%	99.45%
19	Expenses:						
21	Depreciation	$0	$0	$0	$0	$3,021	$3,021
22	Automobile	$0	$0	$762	$0	$0	$3,946
24	Bank Service Charges	$4	$4	$4	$4	$4	$51
27	Freight & Delivery	$40	$0	($122)	($32)	$161	($102)
29	Interest Expense	$50	$56	$53	$50	$47	$728
30	Job Expenses	$3,533	$916	$5,436	$14,449	$4,743	$41,914
33	Payroll Expenses	$2,129	$2,129	$2,129	$2,129	$3,129	$26,582
36	Rent	$214	$214	$214	$214	$214	$2,568
39	Tools and Machinery	$0	$65	$67	$0	$0	$173
40	Utilities	$12	$12	$14	$12	$8	$102
51							
52	Total Expenses	[illegible]	$3,418	$8,480	$16,837	$10,324	$78,701
53	Gross Profit	$3,729	$11,170	$7,980	$2,002	$11,455	$72,180
66	Net Other Income	$0	$0	$0	$0	$0	$0
66	Net Profit	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
67	Net Profit/Sales	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

The BUSINESS PLAN PRO business plan for Rock Castle Construction has the same categories as the QuickBooks bookkeeping chart of accounts. This match makes it easier to work with both programs to manage the company.

TIPS

Recommended Sequence

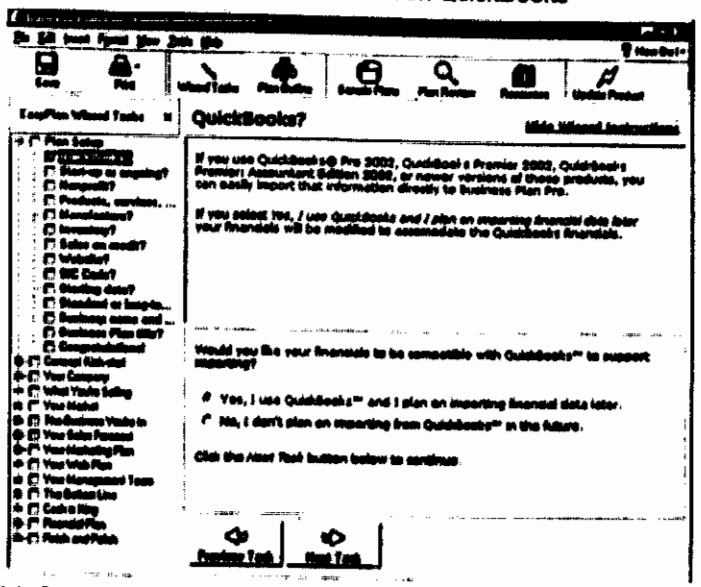
Generally you'll find it easier to develop your categories in QuickBooks first and then match them in BUSINESS PLAN PRO. The QuickBooks categories will relate more directly to your bookkeeping needs. BUSINESS PLAN PRO will import them as part of the import process.

As you can see in the illustration, the match includes all the major categories on both sides. Even the fiscal year structure matches the QuickBooks example. The example took data included in the QuickBooks distribution disk and accommodated the categories list in BUSINESS PLAN PRO to make it match. Most of this import process is automatic, but there is some fine tuning to do if you want your categories to match exactly.

The QuickBooks® Pro Import

The QuickBooks Pro import process starts with an option in the Plan Setup, as shown in Figure 12-3. You tell the EasyPlan Wizard® you're working with QuickBooks so it can set up a plan to match.

FIGURE 12-3: WIZARD STEP FOR QUICKBOOKS®



Tell the EasyPlan Wizard you want your plan to work with QuickBooks.

Preparations Before Import

Figure 12-3 shows how categories were modified in BUSINESS PLAN PRO before importing. The first category and the last category were set to match QuickBooks accounts by using the Edit

Row Label command. BUSINESS PLAN PRO won't delete any expenses—after all, it doesn't know you don't want them there—so to make expenses match exactly, you need to make sure they start out without any extras.

TIPS

QuickBooks Import Matches, but Doesn't Delete

BUSINESS PLAN PRO will not delete rows to make your expenses list match the expenses in QuickBooks Pro. It matches expenses with the same names, and if names don't match, it leaves them as they are in BUSINESS PLAN PRO. It never deletes. To make an exact match, you must delete extra expense rows yourself, first, before the import.

- Set your first and last accounts to match the first and last accounts in QuickBooks. In this example, we set the first row to "Automobile" and the last row to "Utilities." We used the Edit Row Label command in the Format menu.
- Delete any other accounts showing. The import will match values if the category titles match, but will not change the order. "Rent," for example, and "Insurance" are included in the standard new plan with BUSINESS PLAN PRO. If you don't delete them before importing, they will appear out of order after import.

FIGURE 12-4: PREPARING PROFIT AND LOSS FOR IMPORT

Table Profit and Loss | Full Columns

C22 0

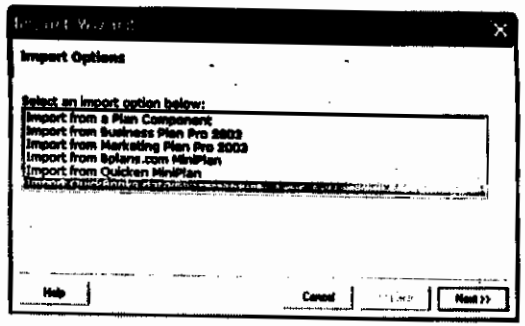
	A	C	D	E	F
3	Total Income	$0	$0	$0	
8	Cost of Goods Sold	$0	$0	$0	
9	Gross Profit	$0	$0	$0	
10	Gross Profit %	0.00%	0.00%	0.00%	
19	Expenses:				
20	Payroll	$0	$0	$0	
21	Depreciation	$0	$0	$0	
22	Automobile	$0	$0	$0	
23	Utilities	$0	$0	$0	
33					
34	Total Expense	$0	$0	$0	
35	Gross Profit	$0	$0	$0	
38	Other Income				
39	Interest Income	$0	$0	$0	
40	Other Income Account Name	$0	$0	$0	

Before importing from QuickBooks, for this example, we set first and last categories to match the first and last categories of the QuickBooks bookkeeping.

The Import Process

The next step is the import process itself. Go to the File menu to find the Import command, which brings up the form shown in Figure 12-5.

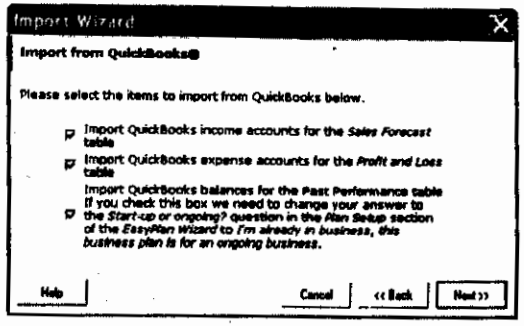
FIGURE 12-5: SELECTING QUICKBOOKS IMPORT



Select the QuickBooks import option from the input form.

For the next step in import, BUSINESS PLAN PRO needs to know how much information you want to import. You have the options shown in the form in Figure 12-6. You can import information for income, which is your sales information; for expenses, and for past balances. This is the first set of choices you can make.

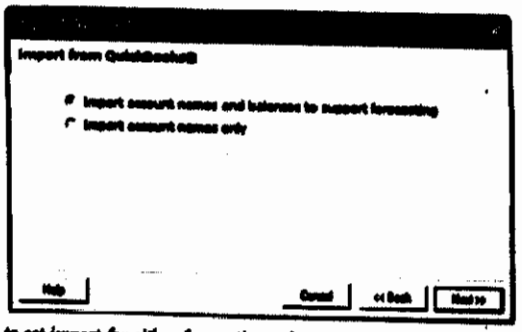
FIGURE 12-6: QUICKBOOKS IMPORT OPTIONS



You have options with QuickBooks import. You can choose which information you want to import.

Figure 12-7 shows the next step, which lets you decide whether you want to bring in values from QuickBooks, for forecasting purposes, or just account names (categories).

FIGURE 12-7: SETTING IMPORT OPTIONS



Use this form to set import for either forecasting values or simply account categories.

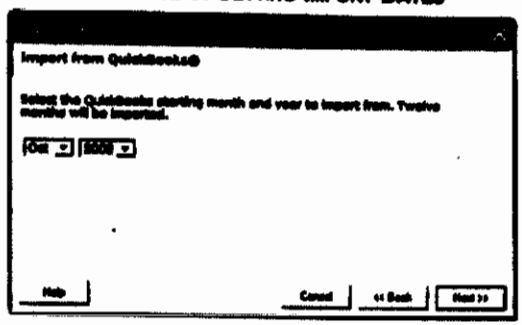
This is your option. Some people like to use past values for forecasting, others prefer to start with no values and set their own values. BUSINESS PLAN PRO includes power forecasting tools, such as the Forecaster and Row Fill features, to make for easier forecasting. However, some people prefer to project past data forward into the future.

The QuickBooks import isn't a substitute for good forecasting. It doesn't do data analysis, or technical forecasting. It will, however, take a close approximation of past results and apply any percentage growth you want to set to create future estimates for sales, costs of goods, and expenses.

Setting a Time Frame for Data Import

In the next step, if you choose to use past data for forecasting, you set the time frame for the forecasting step. Most people choose to forecast based on previous full fiscal years, because of seasonality. However, this is your choice. Figure 12-8 shows the dialog for setting time frame.

FIGURE 12-8: SETTING IMPORT DATES



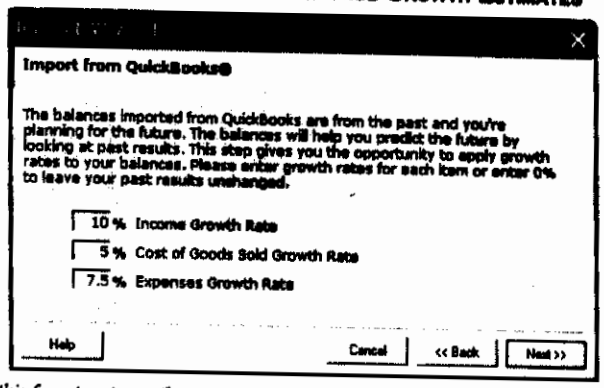
As the import process continues, you use this form to define the past months for which you want to import your data for forecasting purposes.

The import will draw from any 12-month period you specify with the form. Most people choose to import a previous complete fiscal year. That way the months of the calendar match, catching trends related to seasonality.

Making your Projections

In the next step, if you chose to use past data for forecasting, you set the percentage growth rates to assign to sales, costs of goods, and expenses. Each of these three percentage growth rates will be assigned to the entire category of past data, to create future projections.

FIGURE 12-9: SETTING PERCENTAGE GROWTH ESTIMATES



You use this form to set growth rates, as percentages, to convert your past year's QuickBooks data into estimates for your next planning year.

The import process will automatically assign growth rates to all of the relevant categories. It will automatically multiply each month's past result, in each item in each category, by 1 plus the growth rate for each month in the data.

TIPS

QuickBooks Pro Data Import Is Not Exact

BUSINESS PLAN PRO imports QuickBooks Pro data based on what is available in a specific transfer file. Not all monthly details are available. The imported information is useful for forecasting, but is not exact. Payroll, for example, gets only an annual total, so it divides by 12 to estimate monthly amounts.

After the QuickBooks Import

The QuickBooks import affects three tables: the Sales Forecast, the Profit and Loss, and the Past Performance table. It puts your past data and your growth formulas into Sales and Profit and Loss, and your most recent balance into Past Performance.

Sales Forecast

Figure 12-10 shows the BUSINESS PLAN PRO sales forecast produced by the data and assumptions we use for this example, from Rock Castle Construction. There is only one line for sales ("Construction") and only one for costs of goods in this example because the source file in QuickBooks Pro had only the single categories. You can also see in the example how BUSINESS PLAN PRO handled the projected 10% growth rate for sales and 5% growth for costs of goods.

BUSINESS PLAN PRO's handling is intended to make forecasting easier. You can see the growth rate you assigned during input, so it is easy to change. You can also see, by clicking on any cell, the formula that preserves the previous data and assigns a growth rate. In the example, you see the growth rate in the B column. Cell C4 is selected, so the edit bar shows the formula: "=18171.82*(1+$B4)." The 18171.82 will be either your previous sales or a close approximation, and the "(1+$B4)" will be the application of the growth rate.

FIGURE 12-10: SALES FORECAST AFTER IMPORT

Table: Sales Forecast | Full Columns

C4 =18171.82*(1+$B4)

	A	B	C	D	E
1	Sales Forecast				
2	Sales		Oct	Nov	Dec
4	Construction	10%	$19,989	$11,365	$6,147
7	Total Sales		$19,989	$11,365	$6,147
8					
9	Direct Cost of Sales		Oct	Nov	Dec
11	Cost of Goods Sold	5%	$209	$100	$0
13	Subtotal Direct Cost of Sales		$209	$100	$0

The sales forecast after import from QuickBooks puts your growth rates in the second column and applies them to approximate past results from the QuickBooks Pro data.

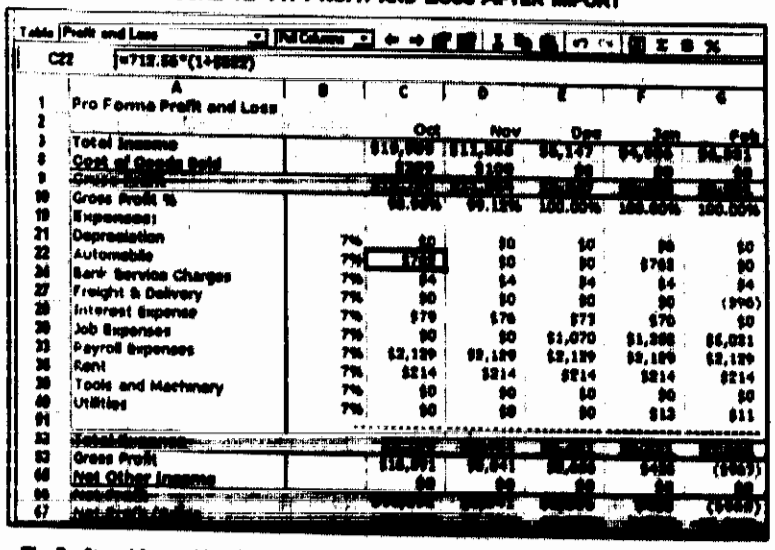
To make the illustration shown, we used the Format > Row > Hide command to hide leftover rows in the Sales Forecast. The QuickBooks import doesn't do that automatically.

Profit and Loss

The Profit and Loss, most important of the three, already shows in Figure 12-11. The Import settings customize the Profit and Loss to match your QuickBooks. There are some important special situations:

1. QuickBooks Pro puts lines of sales, which it calls income categories, onto the Profit and Loss. BUSINESS PLAN PRO, however, puts sales and costs of goods sold only, as summary rows, on the Profit and Loss. The detail is in your Sales Forecast.
2. The BUSINESS PLAN PRO row for payroll remains in the Profit and Loss, but the QuickBooks Pro import ignores it. If you have payroll expenses in your QuickBooks Pro, then your QuickBooks payroll information appears below, in alphabetical order, among the operating expenses. You can choose to stick with QuickBooks compatibility and ignore the Personnel Plan table in Profit and Loss, or to stick with the Personnel Plan and ignore—and delete—the row imported from QuickBooks. You can hide the built-in payroll line from BUSINESS PLAN PRO, or delete the one from QuickBooks, depending on which option you choose. In the example in Figure 12-11, we chose to hide row 20, which contains the empty payroll information.
3. Depreciation is a set row. BUSINESS PLAN PRO needs depreciation to calculate cash flow properly. Depreciation must always stay in the same row, or it won't sort properly with the rest of your expenses.

Figure 12-11: Profit and Loss After Import



The Profit and Loss table, after import, matches the categories in the QuickBooks Pro accounting data. Note the formula applying growth rates, showing in the edit bar.

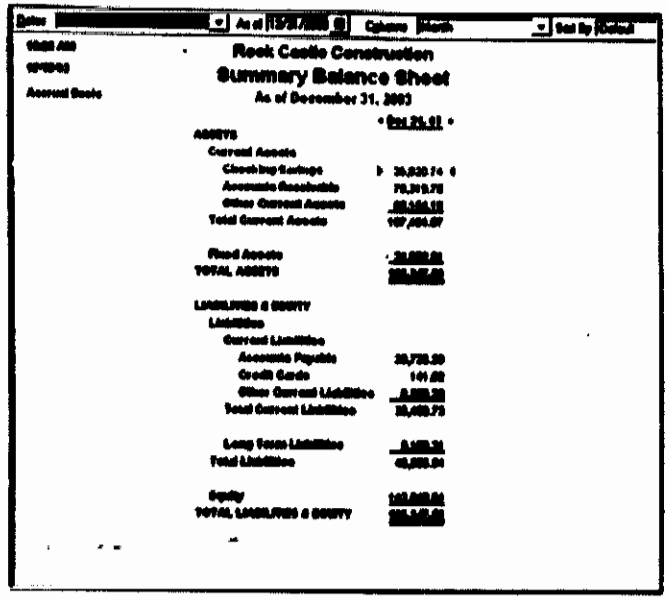
4. BUSINESS PLAN PRO makes monthly estimates from annual totals for some items. Depreciation, for example, and payroll are available to BUSINESS PLAN PRO only as annual totals. It takes the totals available from import and divides by 12 to calculate approximate monthly values. This may not be ideal, but in these cases monthly amounts are not available.

The important point is that the business plan can adjust to meet the needs of the bookkeeping; it has sufficient flexibility. Matching the categories makes the information comparable in both.

Past Performance

The QuickBooks import takes the latest available balance and puts it into the Past Performance table. Figure 12-12 shows the latest available QuickBooks balance, from the Rock Castle Construction sample data included with QuickBooks Pro, which is set for a date in December of 2003.

Figure 12-12: QuickBooks® Pro Balance Sheet



The illustration shows the latest balance in the QuickBooks Pro data, at the time of the import to BUSINESS PLAN PRO.

Figure 12-13, shows the BUSINESS PLAN PRO Past Performance table after the import. In this case the numbers match exactly. The import does catch the main Balance Sheet items as they are in the latest balance.

FIGURE 12-13: PAST PERFORMANCE AFTER IMPORT

	A	B	C	D
10	Balance Sheet			
11				
12	Cash	$0	$0	$20,021
13	Accounts Receivable	$0	$0	$15,520
14	Inventory	$0	$0	$0
15	Other Current Assets	$0	$0	$0
16	Total Current Assets	$0	$0	$66,164
17				
18	Capital Assets	$0	$0	$24,659
19	Accumulated Depreciation	$0	$0	$0
20	Total Long-term Assets	$0	$0	[illegible]
21				
22				
23	Capital and Liabilities			
24		2001	2002	[illegible]
25	Accounts Payable	$0	$0	$30,739
26	Current Borrowing	$0	$0	$141
27	Other Current Liabilities	$0	$0	$8,523
28	Subtotal Current Liabilities	$0	$0	$39,404
29				
30	Long-term Liabilities	$0	$0	$9,102
31	Total Liabilities	$0	$0	[illegible]
32	Paid-in Capital	$0	$0	$27,863
33	Retained Earnings	$0	$0	$115,977
34	Earnings	$0	$0	$0
35	Total Equity	$0	$0	[illegible]
36	Total Capital and Liabilities	$0	$0	[illegible]

The Past Performance table shows the latest QuickBooks Pro balances after import.

The result of import is the latest available Balance Sheet from your QuickBooks data. Normally you are developing a plan for the next fiscal year a few months before the end of the present fiscal year. Therefore the latest available balance is a good start for estimating Past Performance.

TIPS

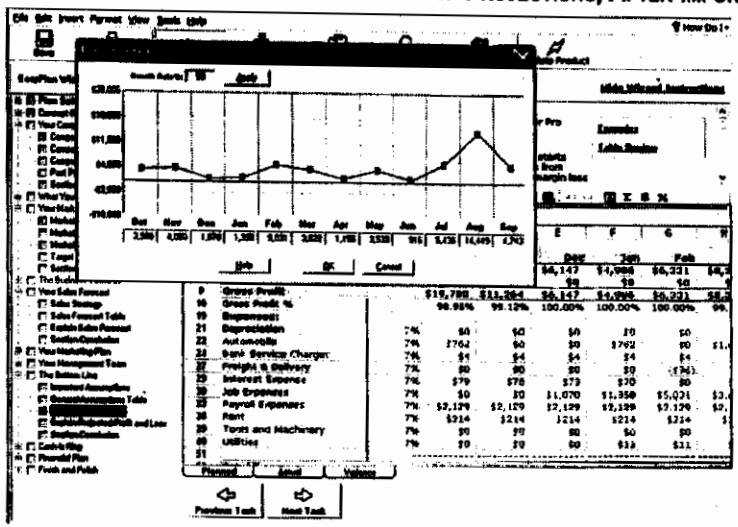
Adjust the Past Performance Balance

BUSINESS PLAN PRO imports the latest available balance for Past Performance. In most cases you'll use those latest balances to estimate final balances for the year.

Developing Your Plan, After the Import

After the import from QuickBooks, your business plan is ready to go. Continue to develop your projections. Your starting balance will be whatever you end up with in Past Performance, and your projected Cash Flow will reflect your assumptions for Sales Forecast, Profit and Loss, and Cash Flow. Your plan is ready to go as well as any other plan developed in BUSINESS PLAN PRO, without the import. Figure 12-14 shows an example of using the Forecaster tool, as explained in Chapter 6, to polish the estimates from the original import.

FIGURE 12-14: USING FORECASTER TO DEVELOP PROJECTIONS, AFTER IMPORT



After import from QuickBooks, continue developing your plan. Make your projections as accurate as you can.

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Working with the Balance Sheet

The balance sheet in QuickBooks will almost always be more complicated than in BUSINESS PLAN PRO. Consider the BUSINESS PLAN PRO balance a summarized, streamlined version, ideal for business planning. Don't expect it to be the same as the QuickBooks detailed balance, because the QuickBooks balance depends on exploding into expanding detail. It will match the categories of the QuickBooks Summary Balance Sheet closely.

You should be able to reconcile the two formats by summarizing QuickBooks details with BUSINESS PLAN PRO. Start with total assets, and divide them first into the summarized categories in BUSINESS PLAN PRO. Here are some helpful details:

- Cash in BUSINESS PLAN PRO should include all of your business' liquid assets: all checking and savings accounts managed by the business, plus money-market funds, and money in real cash (coins and bills).
- Accounts receivable and inventory are summaries. You don't need to divide them into detail in BUSINESS PLAN PRO because you have QuickBooks for detailed management.
- Other Short-term Assets is a holding place for whatever else you have as short-term assets. For simplification's sake, hold all depreciation for long-term assets (even if you do have short-term, you do depreciate, and you don't have long-term assets). Remember, the business plan is for planning purposes, and QuickBooks is for tax reporting and detailed accounting.
- Make sure the totals add up. When in doubt, look at your totals for short-term assets and long-term assets, adjusted for inflation. Fit the asset base into the BUSINESS PLAN PRO categories.

Next, make sure your total liabilities match, and then divide them into the BUSINESS PLAN PRO balance sheet using these hints:

- Accounts Payable are all of your bills due. Include liabilities like credit card balances.
- Current Borrowing is for bank loans, bank lines of credit, accounts receivable financing, inventory financing, and credit card balances if you don't include them in Accounts Payable.
- Other Short-term Liabilities is for all other liabilities that don't fit into the first two categories. This is where you put all interest-free debt, such as loans from founders, or accrued taxes (if you don't have them in Accounts Payable).
- Make sure the liabilities total matches your QuickBooks total. If not, then you haven't got the numbers right. BUSINESS PLAN PRO mainly handles totals, so just divide the details into the right categories.

Finally, make the capital match as well. Paid-in Capital is actual money invested. Earnings are current-period earnings, as in the present year. Retained Earnings are whatever is required to make capital equal to assets minus equity.

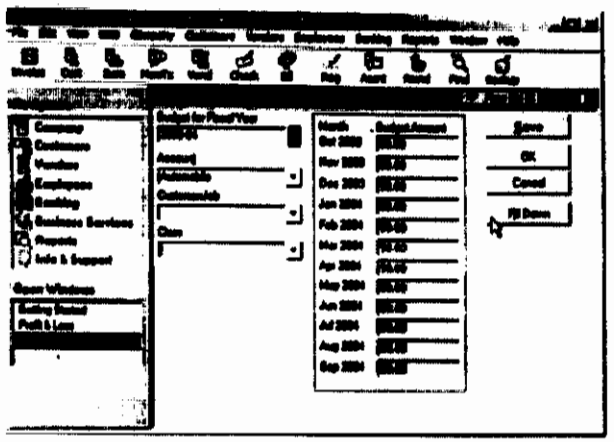
Developing and Managing Budgets

When the plan and the accounting match, you have choices regarding budgeting, tracking, and management follow-up.

QuickBooks Budget

You can use your business plan to develop budgets that you can transfer back, manually, into your QuickBooks budget. Figure 12-15 shows an example.

FIGURE 12-15: QUICKBOOKS BUDGET



You can use your business plan to help determine the numbers in your QuickBooks budget. This example takes automobile expenses from the plan and puts them into the budget.

BUSINESS PLAN PRO® Budget (PREMIER version)

The other alternative is to keep the budget within BUSINESS PLAN PRO PREMIER version, and refer to it for plan-vs.-actual analysis. You can use the business plan to record plan, actual, and variance. Transfer actual numbers from QuickBooks to the BUSINESS PLAN PRO PREMIER Actual table view for Profit and Loss. Figure 12-16 shows this example.

Figure 12-16 shows how easily you can move your actual-results from QuickBooks to your business plan when the categories match. The view shows the Actual view of Profit and Loss

within BUSINESS PLAN PRO PREMIER version, showing the December results from a QuickBooks report from the Larry's Landscape QuickBooks sample.

FIGURE 12-16: ACTUALS RESULTS TO BUSINESS PLAN PRO®

Sales	[illegible]	[illegible]	[illegible]
Direct Cost of Sales	$804.00	$1,539.27	$1,777.46
Total Cost of Sales	$804.00	$1,539.27	$1,777.46
Gross Margin	[illegible]	[illegible]	[illegible]
Gross Margin %	98.94%	92.96%	99.60%
Operating expenses:			
Automobile	$83.18	$804.87	$100.00
Bank Service Charges	$40.50	$39.00	$40.00
Delivery Fee	$15.00	$25.00	($25.00)
Insurance	$545.00	$545.00	$545.00
Interest Expense	$85.77	$60.97	$66.12
Job Expenses	$2,447.35	$400.00	($420.00)
Mileage Reimbursement	$4.50	$0.00	$0.00
Payroll Expense	$11,874.90	$11,294.66	$5,563.84
Professional Fees	$0.00	$375.00	$100.00
Rent	$800.00	$800.00	$800.00
Repairs	$0.00	$45.00	$50.00
Tools and Misc. Equipment	$18.95	$716.05	$50.00
Uncategorized expenses	$0.00	$0.00	$0.00
Utilities	$215.32	$234.46	$205.77
Profit Before Interest and Taxes	$5,229.63	$5,188.50	$9,858.58
Taxes Incurred	$0.00	$0.00	$0.00
Extraordinary Items	$76.43	$735.00	$121.69

Use the BUSINESS PLAN PRO PREMIER version *Actual mode to record actual results from QuickBooks and track management implications of running numbers.*

TIPS

Using the QuickBooks Export to Excel

If you match your QuickBooks Export to Excel so it matches the structure of Actual worksheets in BUSINESS PLAN PRO PREMIER, you can export to Excel and then copy and paste to BUSINESS PLAN PRO. QuickBooks Export has a lot of power and flexibility, so you do have to tailor it to match the 12-months in a row structure of your business plan. Use the QuickBooks *Profit and Loss Standard* report, make sure it is fully collapsed, set the columns to Months, and export to Excel with the advanced settings set to not show spaces between columns. The result will be easy to paste as values to the Actual table in BUSINESS PLAN PRO PREMIER version.

Showing Variance in BUSINESS PLAN PRO (PREMIER version)

When actual results are added in, BUSINESS PLAN PRO PREMIER can calculate variance (plan-vs.-actual) automatically. Figure 12-17 shows the variance for this example, Larry's Landscaping.

FIGURE 12-17: SHOWING THE VARIANCE

	Oct	Nov	Dec
Sales	$5,520	$5,137	$1,978
Direct Cost of Sales	$746	$111	($127)
Total Cost of Sales	$746	$111	($127)
Gross Margin	[illegible]	[illegible]	[illegible]
Gross Margin %	86.49%	97.84%	106.45%
Operating expenses:			
Automobile	$17	($505)	$0
Bank Service Charges	($1)	$7	$0
Delivery Fee	$10	$0	$50
Insurance	$5	$5	$5
Interest Expense	($2)	$4	$10
Job Expenses	($2,047)	$0	$820
Mileage Reimbursement	$6	$10	$10
Payroll Expense	($1,875)	($1,235)	$4,436
Professional Fees	$100	($275)	$0
Rent	$0	$0	$0
Repairs	$50	$5	$0
Tools and Misc. Equipment	$31	($666)	$0
Uncategorized expenses	$0	$0	$0
Utilities	$35	$16	$44
Total Operating Expenses	($3,671)	($2,594)	$5,375
Profit Before Interest and Taxes	$2,595	$2,554	$7,224
Taxes Incurred	$659	$659	$659
Extraordinary Items	$44	($515)	($2)
Net Profit	$3,210	$3,788	$7,884
Net Profit/Sales	58.18%	73.32%	399.05%

After actual results are available–from the QuickBooks bookkeeping–then BUSINESS PLAN PRO *can track the Variance.*

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Working with Microsoft Office®

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Working with Microsoft Word® 13.5
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Working with Microsoft PowerPoint® 13.14

Microsoft Office®, Word®, Excel®, PowerPoint®, Windows® and Notepad® are all registered trademarks of Microsoft Corporation.

CHAPTER 13: WORKING WITH MICROSOFT OFFICE®

We know Microsoft Office well. BUSINESS PLAN PRO® *began in the late 1980s as Business Plan Toolkit, a collection of templates for Microsoft Excel and Microsoft Word.*

The template product won many awards, including a "best of breed" recommendation by PC World and Newsweek in 1994. The template is still available, in updated versions, for Macintosh users.

Office® vs. BUSINESS PLAN PRO®-Comparisons

Microsoft Office® (Office) includes Microsoft Word® (Word), a powerful word processor, Microsoft Excel® (Excel), a spreadsheet, Microsoft PowerPoint® (PowerPoint), a presentation maker, and other applications. They can share data and have a similar interface. The Office platform starts with its powerful tools and also serves as a de facto standard for exchanging documents.

The main Office tools are application programming languages, more than applications. Excel, for example, is a blank spreadsheet; it does nothing unless you program it with formulas. BUSINESS PLAN PRO, in contrast, focuses on doing one thing very well: developing a business plan. Its advantages for this one task include content, ease of use, and the value of business time. Where Excel is a blank applications language to be programmed, BUSINESS PLAN PRO® is already programmed with business plan financials. Where Word is a blank document, BUSINESS PLAN PRO starts with a suggested business plan outline. It has instructions and examples on every topic.

The time and ease of use elements are based on two main points: the spreadsheet work and the document formatting work. Furthermore, its content is unique.

TIPS

BUSINESS PLAN PRO as a Head Start

If you're an expert user of Microsoft Office, then you can do a lot of what BUSINESS PLAN PRO does for you in terms of programming the tables and developing the text. What you have is an information-rich, helpful, guided development tool that serves as an excellent head start.

You can work through the main points of your plan, and the main financial analysis, and then move it to Microsoft Office for fine tuning.

Spreadsheet—Comparison

BUSINESS PLAN PRO gives even the Excel expert a huge head start. Anybody who has business and spreadsheet knowledge can develop a business plan using Microsoft Office. However, the spreadsheet component alone would take several good days of work. Developing a complete set of linked, financially and mathematically correct tables is a long and painstaking job. BUSINESS PLAN PRO, on the other hand, gives that same expert a starting point of completely developed, tested, and documented tables. This can save 40, 60, maybe 100 hours of spreadsheet work. Furthermore, in the BUSINESS PLAN PRO PREMIER version, the tables are built into a flexible interface with spreadsheet-programming capability for adding additional tables as needed, and linking those added tables to the standard ones. It's essentially the best of both worlds, a developed spreadsheet that can be modified and linked.

Document—Comparison

While Microsoft Office is a powerful tool for developing the document, in most cases even the expert will need to manually merge text, tables, and charts together. The Word document is the source, the Excel tables and charts the illustrations. When numbers change, charts and tables need to be merged into the document again.

The main differentiator is the business plan content. BUSINESS PLAN PRO includes built-in content representing years of expertise; it provides a wealth of know-how in its content-driven expert software. Help and instructions are available throughout, and the EasyPlan Wizard® walks you through the planning process from start to finish.

Perhaps the best news, as a conclusion to this comparison, is that a Microsoft Office user doesn't have to choose. BUSINESS PLAN PRO is built to work with the Office tools, so you can take full advantage of the business plan head start, then move your plan over to Office for finish and polish—you don't have to, of course, but there is that option. Furthermore, you can pull your work from Word and Excel into BUSINESS PLAN PRO.

TIPS

No Technical Support for Working in Microsoft Office Programs

Palo Alto Software cannot provide technical support for programming in Word, Excel, or PowerPoint. Each is a very powerful application programming language, which gives you many opportunities to make mistakes and create errors. Make backups often.

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Working with Microsoft Word®

Word is one of the most popular and powerful word processing tools available. It is a generally-accepted standard for transferring editable documents between different users. BUSINESS PLAN PRO can work with Word a couple of ways:

- You can import text from Word into the text portions of BUSINESS PLAN PRO.
- You can export a completed plan from BUSINESS PLAN PRO to a Word document, in an already-formatted page layout with text, tables, and charts merged.

Importing from Word to BUSINESS PLAN PRO®

A clean text document developed in Word can be copied and pasted into BUSINESS PLAN PRO. However, many Word documents include features not compatible with your business plan text.

- BUSINESS PLAN PRO handles bullet and numbered lists like the Internet does, different from Word.
- BUSINESS PLAN PRO has its own business formats that can't deal with the multiple columns, text boxes, or frames created in Word.

There are two ways to paste imported text with non-compatible formatting removed:

Edit > Paste Special

The best way to import text from a Word document is to use the Edit > Paste Special command in BUSINESS PLAN PRO. This command removes the text formatting styles and pastes as "text only." Once the text has been pasted into the topic screen, you can use the text formatting features in BUSINESS PLAN PRO.

Notepad

Another approach (used with earlier versions of BUSINESS PLAN PRO) is to open the Word document in Notepad® (a Microsoft document application included with Microsoft Windows®). Notepad will open Word documents in a similar way to the Edit > Paste Special command that cleans the text of the additional features not compatible with BUSINESS PLAN PRO.

?

To Learn more about...	Search the Help Index for...
Edit > Paste Special	Paste Special, Edit menu, importing from Word
Notepad	Notepad, importing from Word

Exporting from BUSINESS PLAN PRO® to Word

BUSINESS PLAN PRO will export a completed business plan into several different formats, including a Microsoft Word ".doc" file. The exported file will include the topic outline, complete with formatting, and all linked tables and charts.

When to Export to Word

Don't make the mistake of exporting a plan from BUSINESS PLAN PRO to a Word document without a good business reason. You might consider exporting to Word if you needed:

- More sophisticated graphics directly integrated into the plan document.
- More sophisticated formatting options.
- Integration with other external documents or worksheets.

For example, BUSINESS PLAN PRO is frequently used as an instructional tool for business school classes. BUSINESS PLAN PRO is capable of supporting a graduate-level print job for classes or competitions. However, when specific types and styles of formatting are required as a condition of the class or competition exporting to Word gives a plan the extensive formatting options available in this word processing program. The Word document is also appropriate in some larger businesses where Word compatibility is needed with other business plans and related documents.

When Not to Export to Word

If you have doubts, don't export. Exporting to Word means you lose the live tables and other features within BUSINESS PLAN PRO. The BUSINESS PLAN PRO automatic format is approved and endorsed by real business readers including bankers, Small Business Development Centers (SBDCs), and investors. Your business plan is not going to be more successful just because of formatting options in Word. If this is the purpose, focus on the content, not the format, and let BUSINESS PLAN PRO handle the output for you.

You Cannot Export, Modify, then Import Back

The exported Word document becomes data in Microsoft Word. What happens to it depends on you. You can use whatever Word features you want to modify and manipulate the file. You can email a Word file to a colleague. You can edit and customize.

However, you cannot export a plan to Word, change it, and then import it back into BUSINESS PLAN PRO. The BUSINESS PLAN PRO file format is based on a database of topics, tables, and charts, and of course the Word format is much more free form. If you make changes in the Word document the only way you can take them back into the original or source business plan is by copying them from Word and pasting them carefully into the proper topic, as explained in the previous section.

Tables exported into a Word document are no longer live. They will not recalculate. If you export a business plan to Word and then need to change assumptions in tables, your exported document will not reflect those changes. You would have to export again from BUSINESS PLAN PRO to Word and start again.

To keep the Word version of your plan and still change the financial data, you could export tables to Excel and then merge the resulting Excel documents into the modified Word document, using Microsoft Office functions and features. That would have to take place in Office, not BUSINESS PLAN PRO.

Export a Completed Plan

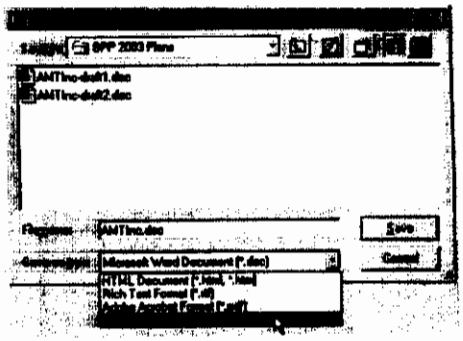
You can choose export formats. The options include:

- PDF (Adobe Acrobat Reader)
- RTF (Rich Text Format)
- HTML (Hypertext Markup Language)
- DOC (Word-formatted document)

PDF is Adobe's Portable Document Format. DOC files are standard Word files. RTF is compatible with many word processors, including Word. HTML creates files you can post on a website. This HTML file export is not to be confused with the automatic Web file posting at www.secureplan.com.

Figure 13-1 shows the File > Export command dialog. You can export the entire plan or the current topic you have open.

FIGURE 13-1: EXPORT A PLAN TO WORD



The ".doc" export creates a Word document containing text, tables, and charts.

TIPS

Using Word Outline Facility After Export

After you export a finished plan to Microsoft Word, you can set Word to outline view and set the topic headings into Word heading styles, using the Word outline facility.

The heading styles will help you manage the document by logical hierarchy, in the outline view.

The exported Word document is a complete plan, formatted with the topic headings, fonts and font styles you have in your plan. Tables and charts are imbedded into the Word file where they belong. The tables export as Word tables, and the charts are included in the Word file as graphics.

The monthly tables (appendices in the business plan file) are included in the export of the whole plan. BUSINESS PLAN PRO automatically prints appendices tables in landscape mode to better display the monthly columns. We suggest you use the Section Break feature in Word, maintain the standard Portrait orientation for the main section of the business plan, and change your page orientation to landscape for printing the appendices section.

TIPS

Exporting to Acrobat Files

You don't need to export a plan to Word to send a copy to somebody else. You can also export the plan to Adobe Acrobat's portable document format (.pdf).

The .pdf format displays a complete document as if it were printed. Most computers can read .pdf files, but not edit them—they are read only.

Working with Microsoft Excel®

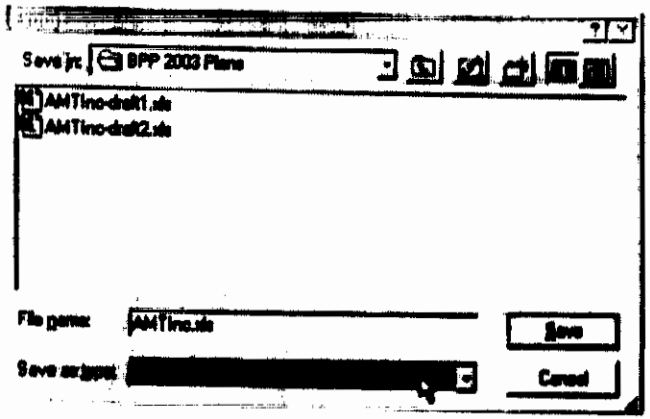
BUSINESS PLAN PRO has built-in linked tables (covered in Chapter 6, Your Plan Tables, and Chapter 10, Advanced Tables), which are quite compatible with Microsoft Excel. They are programmed using the same spreadsheet programming you use in Excel. Unlike the standard Excel spreadsheet, these tables are already programmed, full of help, and carefully documented. Important formulas are locked to prevent inadvertent errors. Furthermore, you can complete a full business plan without doing any Excel programming: just type in your numbers. However, if and when you need them, the underlying spreadsheet capabilities are there.

Exporting from BUSINESS PLAN PRO® to Excel

BUSINESS PLAN PRO exports its tables to a complete Excel workbook, with all range names, formulas and calculations accessible.

1. Use View > Table menu to view any table. Choose File > Export.
2. The Export command gives you two options: Plan or Spreadsheet. Choose Spreadsheet.
3. The Export file navigation dialog opens up, asking for file name and folder. Be careful to note the file name (it should end with .xls) and the directory for the file you are creating.

Figure 13-2: Export to Excel



You can export the entire BUSINESS PLAN PRO *spreadsheet to Excel.*

Recommended Steps after Export to Excel

Open the exported file in Excel and use the Save As command to save it immediately in the latest Excel format, with a different file name.

- If you work with Excel 2000, for example, save it as a standard Excel .xls formatted file.
- This avoids many file format problems, makes your files more robust, and gives you a backup of your file as it was before you started working with it.
- Giving it a different file name means you'll always have the original exported file as a reference.

Caution after Export to Excel

While your tables are inside BUSINESS PLAN PRO, they are protected several ways—beginning with worksheet and formula locks—to avoid accidental errors. After export to Excel, those protections are gone, so be careful. The export to Excel can be the business-planning equivalent to getting "enough rope to hang yourself."

Since Excel is an application programming language, after you export your BUSINESS PLAN PRO tables to an Excel workbook, you can do anything Excel allows. That includes changing formulas, deleting necessary range names or worksheets, which are changes that will destroy the workbook you started with.

For this reason, Palo Alto Software does not offer free technical support once BUSINESS PLAN PRO tables are exported to Excel.

Working with the Exported Tables in Excel

- Always keep the original exported file unchanged, so you can refer back to it. If you want to start again from the original export, open the original file and use the Excel Save As command to create a copy of it with a new file name.
- Make sure you see the sheet tabs. They are named to match your tables. For example, the Profit and Loss table is in a sheet named "P&L," the Sales Forecast is in a sheet named "Sales Forecast," and so forth.
- Confirm that the sheet tabs are unlocked. In Excel, use the Tools > Protection > Unprotect Sheet command (no password will be required).
- Don't delete or modify the Logistics worksheet. Deleting the Logistics worksheet will effectively destroy your workbook. The Logistics worksheet is full of vital programming variables that are used throughout the workbook. If you delete it you'll have hundreds of #REF and #VALUE errors.
- Don't delete range names. Range names are vital to formulas throughout the workbook. You can add new ones, but don't delete existing ones. The result will be #REF and #VALUE errors.
- You can use the Go To command in the Edit menu to view the range name references.

- Make sure you show row and column headings and watch for hidden rows and columns.
- If your plan settings didn't show inventory, for example, then your exported worksheet won't show rows for inventory.
- If your business plan didn't break expenses by categories, you'll have many rows in your Profit and Loss sheet hidden.
- The hidden rows will be in the worksheets, but hidden. Watch the row numbers to catch the hidden rows. Use the Excel format commands to unhide rows. The Format menu includes a Row command, and the Row command includes an Unhide command.
- Generally, each worksheet is one business plan table, but watch for multiple options within a single worksheet. Specifically:
  - The PREMIER version Sales Forecast includes two sales forecasts, the value-based and the units-based. One of the two will have your numbers and the other will be blank.
  - The Personnel worksheet in PREMIER version has four personnel plans. One of them has your data and the others are blank.
- Don't delete the unused tables, select the rows you don't use and run the Hide command under Rows in the Format menu. Deleting the extra tables will cause #REF errors.
- Always keep the original exported file safe so you can refer back to it. If you want to go back and start again, use the Save As command again.

Import from Excel to BUSINESS PLAN PRO®

Importing from Excel into BUSINESS PLAN PRO is generally a matter of copying from Excel and pasting into BUSINESS PLAN PRO. There are two key issues you should be aware of from the beginning:

- The main BUSINESS PLAN PRO tables are already developed, tested, and documented. You can't paste Excel over them without regard for the existing format and structure.
  - You can't paste Excel over black (locked) cells.
  - The key tables have unprotected data entry cells for the first year in columns C through N. Column O, which calculates first-year totals, is locked. Columns P through S, for years two to five, are unlocked. To paste from Excel, you'd have to copy blocks with the same structure, no more than 12 columns at a time for the monthly data.
- Excel leaves each cell locked by default, so what you copy from Excel and paste into BUSINESS PLAN PRO will end up locked.
  - Use Excel commands to unprotect cells before you copy and paste. Or BUSINESS PLAN PRO commands after you copy and paste.
  - You can find those commands by selecting cells and using Format > Cells > Protection and chosing Unlock.

TIPS

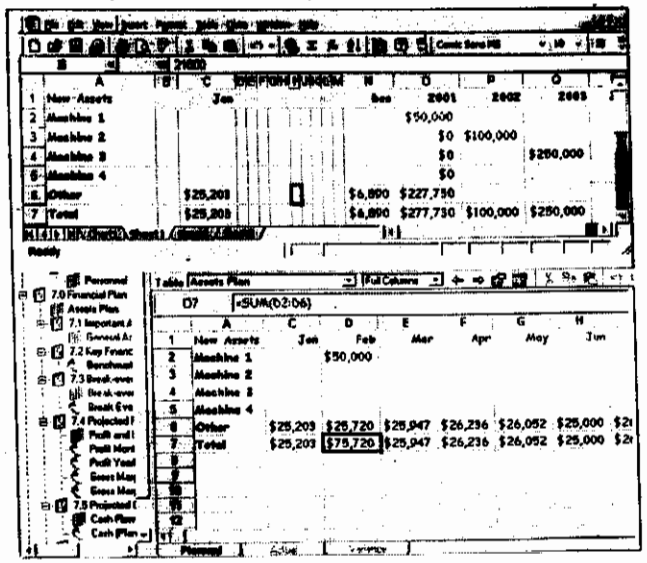
Copy Locked Cells

If you copy locked cells from Excel to BUSINESS PLAN PRO, they will remain protected. You must unlock them in BUSINESS PLAN PRO in order to change them after copying.

(PREMIER version) Paste Excel Worksheet to User-Defined Table

You can copy a range from an Excel worksheet and paste it into a user-defined table in BUSINESS PLAN PRO PREMIER, as shown in Figure 13-4.

FIGURE 13-3: (PREMIER VERSION) PASTING TO USER-DEFINED TABLES



The Excel worksheet on the top was pasted into a user-defined table on the bottom.

- In Microsoft Excel (the example was developed with Excel 2000), make sure that the spreadsheet area you want to paste contains only unlocked cells. If you have any doubts, select the area you want to copy and paste, then use the Format > Cells > Protection tab to make sure those cells are not protected. From within Excel, select and copy the source area you want to use within BUSINESS PLAN PRO.
- Use the Insert tool from the Plan Outline toolbar to insert a new table attached to a topic. Select the cell you want to have as the upper left cell in the target range. Remember, those cells should be unprotected in Excel.
- Use Edit > Paste Special > Paste All command. Your Excel spreadsheet will now be pasted into your user-defined table.

If you do work with this paste process, please remember some of the important tips and traps for pasting from Excel to BUSINESS PLAN PRO:

- A simple copy and paste from Excel to BUSINESS PLAN PRO copies values only, not formats or formulas. To copy and paste spreadsheet information completely, you need to use the Paste Special command in BUSINESS PLAN PRO and chose Paste All to paste both formulas and formats.
- If you paste a formula from one worksheet containing an erroneous reference, you'll get a #REF error in the target worksheet. That's true in Excel alone, and it's also true when you paste from Excel into BUSINESS PLAN PRO. For example:

  If you copy the formula =C9 from cell C10 in Excel into cell C1 in BUSINESS PLAN PRO (or Excel), you get a #REF error. BUSINESS PLAN PRO wants to reinterpret the formula to refer to the relative row number, 9 is 1 less than 10, but when you paste into row 1 you don't have the possibility of a lower row number.
- Copy a formula =XYZ (referring to a range name not already in BUSINESS PLAN PRO) from Excel and paste it into BUSINESS PLAN PRO. BUSINESS PLAN PRO will behave like Excel does in this instance. It creates a new range named XYZ located in a position relative to the target cell.
- Copy the formula =sales from an Excel worksheet and paste it into BUSINESS PLAN PRO. BUSINESS PLAN PRO will create a new range named =sales_2 and will give the target cell the formula =sales_2. To make the cell refer to the BUSINESS PLAN PRO range named sales, you have to edit the formula manually.

External References not Compatible

An Excel formula that refers to an external file will produce an error message in BUSINESS PLAN PRO. Excel can refer to values in other Excel files, but BUSINESS PLAN PRO cannot. If you need the information in that external file to be included in your business plan, then create a new worksheet within BUSINESS PLAN PRO and copy and paste the information you need into it.

Working with Microsoft PowerPoint®

TIPS

PowerPoint is a Different Medium

A business presentation is a different medium. It is about a business plan, but isn't the same as a business plan.

Don't try to directly include portions of your plan—stick to graphics, and bullet point summaries. Even a mission statement should be modified for use in PowerPoint. Refer to key points only, not the full text.

For working with PowerPoint, please make sure to read through Chapter 8: Print and Publish, discussion on developing presentations to go along with your business plan. BUSINESS PLAN PRO includes specialized templates for PowerPoint, and Chapter 8 includes details on the style and content of the PowerPoint presentation.

As that chapter states, a business plan presentation is a specialized communication. Most of these presentations need to summarize an entire business plan in a streamlined set of 7-20 slides for a talk that lasts about 30 minutes.

- It uses graphics to illustrate main points. The slide displays the chart only, so the presenter fills in the details.
- It uses bullet points and key phrases only. They are reminders and placeholders, not complete thoughts.
- It is all summary. The text is large and there isn't much of it. Charts tell most of the story.

A good presentation is about results. It's short and exciting. It makes its key points quickly and well.

It needs to be optimized for the business purpose. Normal business plan presentations have to say what they can in 30 minutes. They avoid details and stick to highlights. Some special occasion presentations, in contrast, need to go into great detail on specific points. Always, even when details are important, keep the text large and the graphics simple. People don't read details from a presentation.

This kind of optimized presentation tool isn't created automatically by computer software, and particularly not by business plan software. The format is different, the purpose is different, so the tool itself must also be different. There's no way a business plan document can automatically create a PowerPoint presentation without ending up with a poor presentation, too much text, too many numbers, and not enough summary.

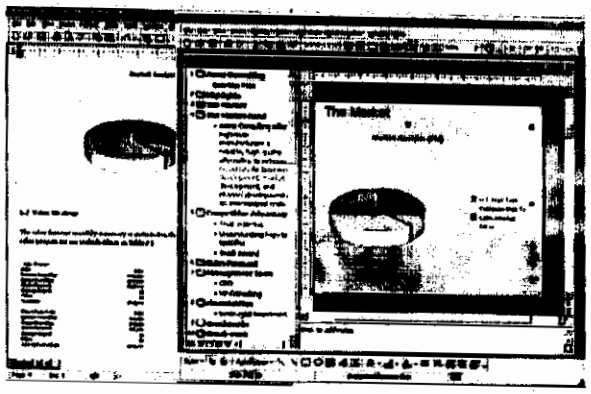
You can, however, use your BUSINESS PLAN PRO business plan to be the important content for the presentation.

Importing to PowerPoint from BUSINESS PLAN PRO®

Export First to Word

In the following example, we first exported our business plan to Microsoft Word, then used Word and PowerPoint together to create the business presentation. The advantage is that the export to Word gives us a manageable document with graphics and tables easily available for copy and paste. If we stay in BUSINESS PLAN PRO, we have to export each graphic as a separate file, then import those files into the PowerPoint presentation. Export to Word is quicker. The Word export is explained earlier in this chapter. Figure 13-5 shows an example of developing a slide presentation from an exported business plan:

FIGURE 13-4: DEVELOPING POWERPOINT SLIDES

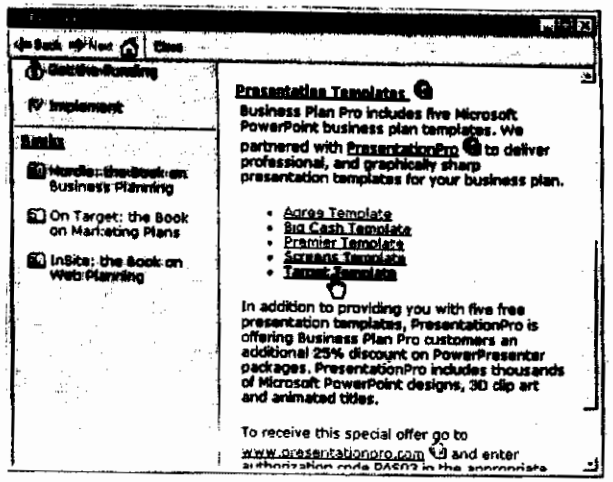


The background is a Microsoft Word file produced from a BUSINESS PLAN PRO *plan exported to Word. The foreground is a PowerPoint presentation.*

Use PowerPoint Presentation Templates

BUSINESS PLAN PRO includes five PowerPoint business plan templates that can help you deliver your business plan in a clear, concise, professional, graphically sharp presentation. Click the Resources button and choose Make it Happen > Present > Presentation Templates. Choose any of the bullet list links. The template will open in PowerPoint and you can then copy/paste text, tables and charts from your exported Word document (as described earlier).

FIGURE 13-5: POWERPOINT PRESENTATION TEMPLATES



BUSINESS PLAN PRO *has five PowerPoint presentation templates included in Resources.*

Remember: the Medium has Changed

Remember the purpose of a PowerPoint presentation. You want summaries in the presentation, not detail. Contents should change to reflect the different medium of communication.

- Summarize, don't quote. For example, don't include the whole mission statement, include key bullets.
- Use graphics as talking points.
- Less text is better. Don't copy your business plan texts into your PowerPoint presentation, make bullets that summarize in a few words.
- Generally, PowerPoint text should not go below 18 points. If you need smaller than that to fit the text, you probably have too much.

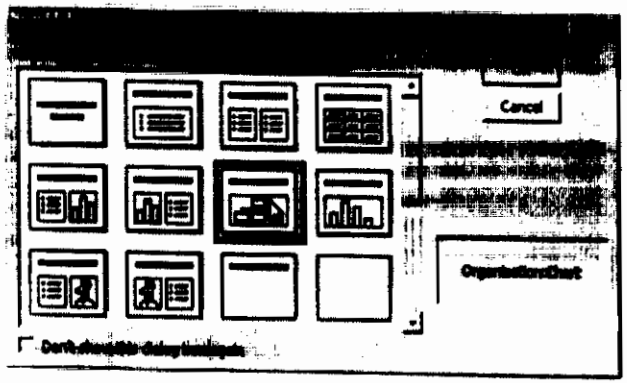
Import PowerPoint Graphics into BUSINESS PLAN PRO®

BUSINESS PLAN PRO doesn't offer a direct import from PowerPoint. You can, however, import a graphic image created from PowerPoint into BUSINESS PLAN PRO. An example is an organization chart, which PowerPoint does well.

Here's how to do an organization chart for your business plan using PowerPoint, and include it as an illustration in the plan:

1. Use PowerPoint to create the organization chart. Figure 13-7 shows the PowerPoint facility (in Office 2000) for an automatic Organization Chart.

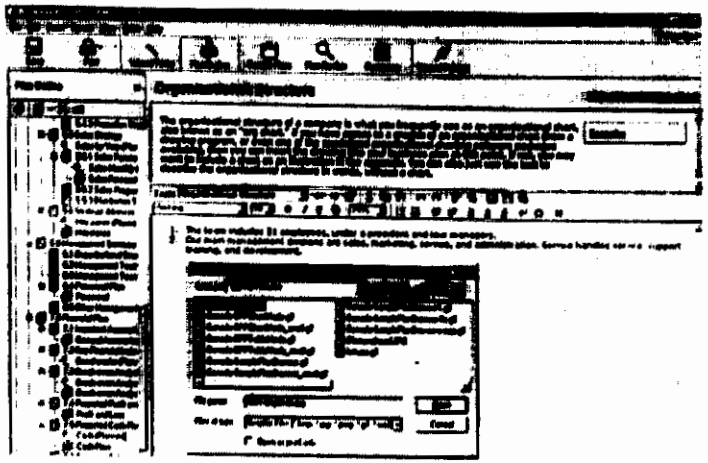
FIGURE 13-6: POWERPOINT ORGANIZATION CHART



The PowerPoint Organization Chart template is a useful tool for developing an organization chart to include in your plan.

2. Use the rulers in PowerPoint to resize the graphic to fit well into the BUSINESS PLAN PRO page. A width of 5" is usually a good size.
3. Save the Organization Chart as a graphic file using the PowerPoint Save As command. PowerPoint will give you the option of saving just the single slide, not the whole presentation. Use the dialog options in PowerPoint to save the graphic as either *.jpg, *.gif, *.bmp, or *.wmf file.
4. Within BUSINESS PLAN PRO, find the target topic for the organization chart from the Plan Outline screen and highlight it to open it in Text Mode.
5. Position your cursor in the topic screen where the image will display.
6. Right-click with your mouse to open the pop-up menu. Select Insert > Image from the menu options.
7. Locate the graphic file created in PowerPoint and select from the dialog box, as shown in Figure 13-8.

FIGURE 13-7: INSERT GRAPHIC IMAGE IN A TEXT TOPIC



Locate the .gif, .bmp, .wmf, or .jpg graphic image to insert into your text topic.

TIPS

Insert Image

You can also use the Insert Image icon from the toolbar to access the dialog box.

Notes on Graphics:

Graphics need to fit on to a standard 8 1/2 x 11" paper for printing. Also, some printers may not have enough memory to print a large graphic along with text and other images on a single page. Consult your print manual for more information.

TIPS

(PREMIER version) Build an Organizational Chart

Use the Insert > Organizational Chart command to build into a text topic. Instructions on how to build an organizational chart within BUSINESS PLAN PRO can be found in the Help Index.

Appendix A: Range Names

APPENDIX A: RANGE NAMES

Business Plan Pro uses named ranges in the tables to simplify reading and working with formulas.

It is not necessary to know the built-in formulas or the range names; we provide this information for those who would like to know.

Named ranges can be used to create other specialized formulas, as described in more detail in Chapter 10, Advanced Tables.

Range Name (Premium Version Only)		Table and Range
accounts_payable		=Balance!$A18:$B$18
accounts_receivable		=Balance!$A6:$B$6
accumulated_depreciation		=Balance!$A12:$B$12
acid_test		=Ratios!$O89:$T89
assets_to_sales		=Ratios!$O87:$T87
average_per_unit_revenue		='Break-even'!$O6
average_per_unit_variable_cost		='Break-even'!$O7
cash		=Balance!$A5:$B$5
cash_balance_on_starting_date		='Start-up'!$B18
cash_from_receivables		='Cash Flow'!$A6:$B$6
cash_sales		='Cash Flow'!$B5:$B$5
cash_spending		='Cash Flow'!$C22:$B$22
collection_days_estimator	PV	='Cash Pilot'!$A2:$B$2
collection_days		=Ratios!$A42:$B$42
current_borrowing		=Balance!$A19:$B$19
depreciation		='P&L'!$A21:$B$21
direct_cost_of_sales		='P&L'!$A4:$B$4
dividend_payout		=Ratios!$O61:$T61
dividends		='Cash Flow'!$A34:$B$34
earnings		=Balance!$A26:$B$26
estimated_monthly_fixed_cost		='Break-even'!$O8
general_and_administrative_payroll		='P&L'!$A20:$B$20
general_and_administrative_percent		='P&L'!$A29:$B$29
gross_margin		='P&L'!$A9:$B$9
gross_margin_percent		='P&L'!$A10:$B$10
include_negative_taxes		='P&L'!$P$53:$B$53
include_negative_taxes_first_year		='P&L'!$O$53
interest_expense		=P&L!$A39:$B$39
inventory		=Balance!$A7:$B$7
inventory_purchase		=Assumptions!$A13:$B$13
inventory_purchased_this_period	PV	='Cash Pilot'!$A28:$B$28
inventory_turnover		=Ratios!$O43:$T43

Range Name (Premium Version Only)		Table and Range
inventory_turnover_estimator	PV	='Cash Pilot'!$A4:$B$4
inventory_used_this_period	PV	='Cash Pilot'!$A22:$B$22
long_term_assets		=Balance!$A11:$B$11
long_term_interest_rate		=Assumptions!$A8:$B$8
long_term_liabilities		=Balance!$A23:$A$23
long_term_liabilities_principal_repayment		='Cash Flow'!$A31:$B$31
monthly_sales_breakeven		='Break-even'!$O3
monthly_units_breakeven		='Break-even'!$O2
net_cash_flow		='Cash Flow'!$A37:$B$37
net_other_income		='P&L'!$A50:$B$50
net_profit		='P&L'!$A51:$B$51
net_profit_margin		=Ratios!$O37:$T37
net_worth		=Balance!$A31:$B$31
new_accounts_payable		=Assumptions!$A12:$B$12
new_current_borrowing		='Cash Flow'!$A12:$B$12
new_investment_received		='Cash Flow'!$A17:$B$17
new_long_term_liabilities		='Cash Flow'!$A14:$B$14
new_other_liabilities_interest_free		='Cash Flow'!$A13:$B$13
other_liabilities_principal_repayment		='Cash Flow'!$A30:$B$30
other_current_liabilities		=Balance!$A20:$B$20
paid_in_capital		=Balance!$A26:$B$26
past_capital_assets		=Past!$D$18
past_performance_accounts_payable		=Past!$D$25
past_performance_accounts_receivable		=Past!$D$13
past_performance_accumulated_depreciation		=Past!$D$19
past_performance_cash		=Past!$D$12
past_performance_collection_days		=Past!$D$7
past_performance_current_borrowing		=Past!$D$26
past_performance_earnings		=Past!$D$34
past_performance_gross_margin		=Past!$D$4
past_performance_gross_margin_percent		=Past!$D$5
past_performance_inventory		=Past!$D$14

Range Name (Premium Version Only)		Table and Range
past_performance_inventory_turnover		=Past!$D$8
past_performance_long_term_liabilities		=Past!$D$30
past_performance_operating_expenses		=Past!$D$6
past_performance_other_current_assets		=Past!$D$15
past_performance_other_current_liabilities		=Past!$D$27
past_performance_paid_in_capital		=Past!$D$32
past_performance_payment_days		=Past!$D$39
past_performance_sales		=Past!$D$3
payment_days_estimator	PV	='Cash Pilot'!$A$3:$BS$3
payments_on_accounts_payables	PV	='Cash Pilot'!$A$17:$BS$17
payroll_expense		=Assumptions!$A$10:$BS$10
Payroll2		=Personnel!$C$11:$AS$11
Payroll3	PV	=Personnel!$A$39:$BS$39
Payroll3GA	PV	=Personnel!$C$30:$AS$30
Payroll3OTH	PV	=Personnel!$C$36:$AS$36
Payroll3P	PV	=Personnel!$C$18:$AS$18
Payroll3SM	PV	=Personnel!$C$24:$AS$24
Payroll4	PV	=Personnel!$A$63:$BS$63
Payroll4GA	PV	=Personnel!$C$55:$BS$55
Payroll4OTH	PV	=Personnel!$C$60:$BS$60
Payroll4P	PV	=Personnel!$C$45:$BS$45
Payroll4SM	PV	=Personnel!$C$50:$BS$50
percent_equity_acquired	PV	='Investment Analysis'!$N$9
pilot_accounts_payable_balance	PV	='Cash Pilot'!$A$68:$N$68
pilot_accounts_receivable_balance	PV	='Cash Pilot'!$A$12:$S$12
pilot_inventory_balance	PV	='Cash Pilot'!$A$26:$S$26
plan_month		=Assumptions!$A$3:$BS$3
principal_repayment_of_current_borrowing		='Cash Flow'!$A$29:$BS$29
production_payroll		='P&L'!$5:$5
profit_before_int_and_taxes		='P&L'!$A$38:$BS$38
profit_before_interest_and_taxes		='P&L'!$A$38:$BS$38
purchase_long_term_assets		='Cash Flow'!$A$33:$BS$33

Range Name (Premium Version Only)	Table and Range
purchase_other_current_assets	='Cash Flow'!$A$32:$BS$32
retained_earnings	=Balance!$A$27:$AQ$27
sales	='P&L'!$A$3:$BS$3
sales_and_marketing_percent	='P&L'!$A$18:$BS$18
sales_of_long_term_assets	='Cash Flow'!$A$16:$BS$16
sales_of_other_current_term_assets	='Cash Flow'!$A$15:$BS$15
sales_on_credit	=Assumptions!$A$11:$BS$11
sales_on_credit_percent	=Assumptions!$A$7:$BS$7
sales_tax_vat_hst_gst_paidout	='Cash Flow'!$A$28:$BS$28
sales_tax_vat_hst_gst_received	='Cash Flow'!$A$11:$BS$11
salesunits	='Sales Forecast'!$A$32:$BS$32
salesvalues	='Sales Forecast'!$A$5:$BS$5
current_term_interest_rate	=Assumptions!$A$4:$BS$4
startup_accounts_payable	='Start-up'!$B$36
startup_current_borrowing	='Start-up'!$B$37
startup_inventory	='Start-up'!$B$19
startup_long_term_assets	='Start-up'!$B$23
startup_long_term_liabilities	='Start-up'!$B$41
startup_loss_at_startup	='Start-up'!$B$44
startup_other_current_assets	='Start-up'!$B$20
startup_other_current_liabilities	='Start-up'!$B$38
startup_current_assets	='Start-up'!$B$21
startup_current_liabilities	='Start-up'!$B$39
startup_total_assets	='Start-up'!$B$24
startup_total_capital	='Start-up'!$B$45
startup_total_investment	='Start-up'!$B$33
startup_total_liabilities	='Start-up'!$B$42
subtotal_cash_from_operations	='Cash Flow'!$A$7:$BS$7
subtotal_cash_received	='Cash Flow'!$A$18:$BS$18
subtotal_cash_spent	='Cash Flow'!$A$35:$BS$35
subtotal_direct_cost_of_sales_units	='Sales Forecast'!$A$45:$BS$45
subtotal_direct_cost_of_sales_values	='Sales Forecast'!$A$10:$BS$10
subtotal_current_liabilities	=Balance!$A$21:$BS$21

Range Name (Premium Version Only)	Table and Range
subtotal_spent_on_operations	='Cash Flow'!$A$24:$B$24
tax_rate	=Assumptions!$A$4:$B$4
taxes_incurred	='P&L'!$A$40:$B$40
total_assets	=Balance!$A$14:$B$14
total_cost_of_sales	='P&L'!$A$8:$B$8
total_capital	=Balance!$A$29:$B$29
total_expense	='P&L'!$A$28:$B$28
total_general_and_administrative_expense	='P&L'!$A$28:$B$28
total_liabilities	=Balance!$A$24:$B$24
total_liabilities_and_capital	=Balance!$A$30:$B$30
total_long_term_assets	=Balance!$A$13:$B$13
total_operating_expenses	='P&L'!$A$37:$B$37
total_other_expense	='P&L'!$A$49:$B$49
total_other_income	='P&L'!$A$44:$B$44
total_other_operating_expenses	='P&L'!$A$34:$B$34
total_sales_and_marketing_expense	='P&L'!$A$17:$B$17
total_current_assets	=Balance!$A$9:$B$9
total_startup_expenses	='Start-up'!$B$15
total_unit_sales	='Sales Forecast'!$19:$19
valuation_earnings_multiple	='Investment Analysis'!$B$15:$B$15
valuation_sales_multiple	='Investment Analysis'!$B$16:$B$16
variable_cost_per_unit_calculated	='Break-even'!$O$15

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Appendix B: Collaboration

BUSINESS PLAN PRO® PREMIER *version includes a unique email-based collaboration tool. You can use it with plan development teams to share the process. Collaboration allows you to send and receive portions or components of a plan, with tracking of who modified, and when. You can choose when to accept a received portion of a plan, and whether to accept it and override what's there, on a component-by-component basis.*

Details on how to use collaboration are included in the context-sensitive help in the application. This appendix is a basic review of when and why to use it.

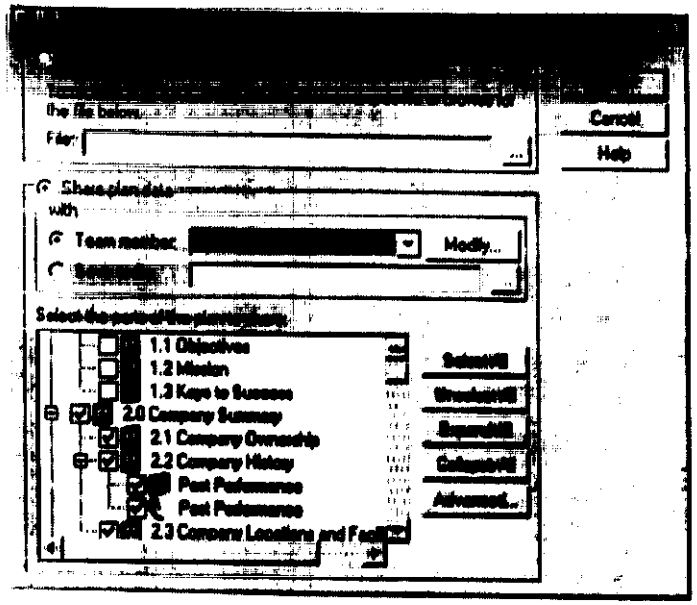
Collaborative Planning (PREMIER version)

As soon as a business plan involves more than a single person, it should become a collaborative effort. Teams implement plans, so teams should develop plans.

Normally a team includes different people with different skill sets and different responsibilities. The classic entrepreneurial team includes a leader, a numbers or finance oriented person, a sales and/or marketing oriented person, and a production person. The ideal business plan for a team like this is a plan developed jointly by team members.

Figure C-1 shows the main form for BUSINESS PLAN PRO collaborative planning.

FIGURE B-1: COLLABORATION MAIN FORM



The collaboration form lets you manage team members, send and receive email collaboration, and save topics or other components to specific files. Note here on this form one team member will receive topics, tables, and the chart in the Company chapter of this plan.

Email Collaboration (PREMIER version)

The unique collaboration feature of BUSINESS PLAN PRO uses the favorite tool for business communication known for file sharing and real-world teamwork—email. Email doesn't require posting to anybody's Web or Internet site, or additional security measures. Email is as private as your email server and email management.

Manage Team Members

As explained in detail in Help, use the main collaboration form to manage team members' names and emails. You can add as many team members as you like.

Select Plan Components to Share

Select plan components (topics, tables, and charts), select team members to receive them, and send them the files. They will receive a file in their email.

TIPS

Collaboration Uses the Plan Outline

The collaboration list uses the Plan Outline. To collaborate on tables or topics not currently in the outline (e.g., Actual sales or Actual Balance Sheet), use the Insert menu or Insert icon to add them to the Plan Outline.

Receive and Accept Each Component

As a team member receives a collaboration file, there is an opportunity to track each component for date modified, and by whom. The person who receives the email collaboration chooses to accept or reject each component individually. Of course he or she can also accept all, or reject all.

TIPS

Collaboration vs. Import/Export Component

You can also export a component, send it to somebody else, then they import it. The difference between collaboration and export-import is tracking modifications and replacing. Importing adds the component to your plan, duplicating what's there if necessary. Collaboration replaces what's there, if you accept the collaborative component.

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To Learn More About...	Search the Help Index for...
Collaboration	Collaborate, Plan Components

Appendix C:
Import and Export Components

BUSINESS PLAN PRO® PREMIER *version includes the ability to build and share components of a plan, such as add-on tables with business-specific details. This is called export.*

Both PREMIER *and* Standard versions *can import exported components. Some examples of these components are:*

- *Company-specific sales and expense forecasts.*
- *Industry-specific add-on worksheets, or sales or expense listings.*
- *Past or previous data, for use as a basis for forecast.*
- *Extra years in months, or quarters for more complex plans.*

Export Component (PREMIER version)

BUSINESS PLAN PRO® PREMIER version can export a component of a plan—text topic, table, or chart—so that it can be imported into another plan. The command is in the File menu. The discussion here is about common or suggested uses of this facility:

- Companies spreading business planning and forecasting responsibilities can create a standard form for Sales Forecast or Profit and Loss, for example, then have dozens or hundreds of people import that form for their own plans.
- Franchisors can create blank master forms for Sales Forecast and Profit and Loss, etc. The tables are left with the numbers blank, so prospective franchisees can make their own projections (less legal liability).
- Business plans requiring additional years in months or quarters can export important statements (e.g., Sales Forecast, Profit and Loss, Cash Flow, Balance Sheet) and then import them back for duplicates to use for the additional time frames.
- Content experts can create components containing their special expertise: planning forms for nightclub businesses, or bed and breakfast inns.
- Consultants can export their preferred formats for tables, for example, and share them with consulting clients.
- As one planning year ends, with actual results recorded properly in the Actual tables of the plan, export the Actuals for that year and absorb them into the next year's plan. That gives you the previous year's actual results as your starting point as you develop the next year.

Import Component

An exported component from BUSINESS PLAN PRO PREMIER version can be imported into either Standard or PREMIER. This facilitates work between consultants and clients, plan experts and planning satellite sites, franchisee and franchisor, etc. The Import Plan Component command is in the File menu. Details of how to use this feature are in the online help.

TIPS

Collaboration vs Import/Export Component

You can also export a component, send it to somebody else, then they import it. The difference between collaboration and export-import is tracking modifications, and replacing. Importing adds the component to your plan, duplicating what's there if necessary. Collaboration replaces what's there, if you accept the collaborative component.

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To Learn More About...	Search the Help Index for...
Import/Export Components	Import, Export, File menu
Collaboration	Collaborate, Plan Components, File menu

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