PN-ACL-864
109598

PRIVATE PARTICIPATION IN INFRASTRUCTURE:

Principles and Techniques- Level II

July 23-25, 1996

Rabat, Morocco

PriceWaterhouse LLP

under subcontract to:

Bechtel Corporation

Energy Technology Innovation Project

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COURSE OUTLINE: July 23-25, 1996 (Morocco)

Private Participation in Infrastructure (PPI): Principles and Techniques - Level II Workshop

Workshop Objectives:

The workshop aims to improve participants' ability to effectively evaluate private-public partnerships in infrastructure sectors specifically in urban services and transport. The course topics include: a) overview of entry conditions and the transaction cycle; b) assessing project feasibility; c) sources of financing and risk mitigation; d) the bid tendering process; and e) analyzing concession contracts. The course will also discuss sectoral strategies for introducing private participation in Morocco, specifically in the transport sector. This workshop expands on the topics discussed in the PPI workshop delivered in March 1996.

Teaching Approach:

The workshop will use a mix of lectures, case studies and computer simulations to analyze PPI design and implementation issues.

Length: *3 Days*

Participants: *Ministry of Privatization officials, Sectoral Ministry officials*

ASSIGNMENT FOR DAY 1: MEXICO TOLL ROAD CASE STUDY - To be given to participants prior to course

DAY 1

09:00-09:15 INTRODUCTION TO COURSE TOPICS AND METHODOLOGY

MODULE 1: OVERVIEW OF PPI

Objective: *To provide a review of key lessons from the PPI - Level I course, emphasizing the process and players involved in private participation in infrastructure.*

09:15-10:30 MEXICO TOLL ROAD CASE STUDY: PLENARY SESSION

10:30-10:45 BREAK

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MODULE 5: TENDER AND BIDDING PROCESS

Objective: *Familiarize participants with optimal methods of structuring the bid tendering process, given the government's project and sectoral objectives.*

16:15-17:45 PRESENTATION: THE BID TENDERING PROCESS
- Overview of the process
- Options for structuring bids
- Criteria for award

DAY 3

MODULE 6: ANATOMY OF A CONCESSION AGREEMENT

Objective: *To introduce participants to key elements of concession agreements which bind public and private parties and provide the basis for project execution.*

09:00-10:45 PRESENTATION: KEY OBJECTIVES AND ELEMENTS OF A CONCESSION AGREEMENT

10:45-11:00 BREAK

11:00-13:00 CASE STUDY: WATER CONCESSION

13:00-14:15 LUNCH

MODULE 7: ROLE OF REGULATORY BODIES

14:15-15:00 PRESENTATION: ROLE AND STRUCTURE OF REGULATORY BODIES

MODULE 8: SECTORAL STRATEGIES FOR PPI IN MOROCCO

Objective: *Discuss PPI options in Morocco for municipal services and transport sectors based on 1995 World Bank report.*

15:00-16:15 PRESENTATION: PPI OPTIONS IN MOROCCO - TRANSPORT SECTOR

- Toll roads, airports, rail, ports

16:15-16:30 BREAK

16:30-17:30 PRESENTATION: PPI OPTIONS IN MOROCCO - MUNICIPAL SERVICES
- Water and electricity distribution, urban services

SPEAKERS

Private Paricipation in Infrastructure: Principles and Techniques - Level II

Marc Flynn - Price Waterhouse

Mr. Flynn has over 10 years of business experience. He has been involved in several training activities in Central and Eastern Europe over the past three years, two of which were based in the Czech Republic. He has also been involved in all aspects of training including the design, development and delivery of training programs related to privatization and restructuring.

Michel Lecerf - Price Waterhouse

Mr. Lecerf is a lawyer with the Cour de Paris and is also the Director of Legal Services of Price Waterhouse in France and Francophone Africa. In Morocco, he has been in charge of a study for mining development on behalf of the Minstry of Engergy and Mines since 1995. He is also actively involved in a number of projects in Gabon, the Congo, Guinea-Bissau, Cameroon and Guinea related to infrastructure privatization and sector restructuring.

Daniel Roth - Price Waterhouse

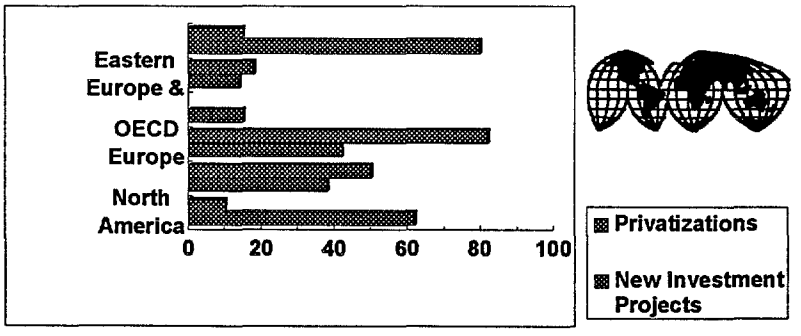
Mr. Roth has 5 years of work and educational experience in the planning, financial and economic analysis of, and traffic forecasting for transportation systems. His experience spans all modes of freight and passenger transportation, with a focused expertise in intercity passenger rail and multi-modal urban transportation.

OVERVIEW OF PPI OPTIONS AND TRANSACTION CYCLE

MODULE 1

A Profile of PPI Worldwide

Private Participation in Infrastructure
Number of Projects by Region (1984-1994)



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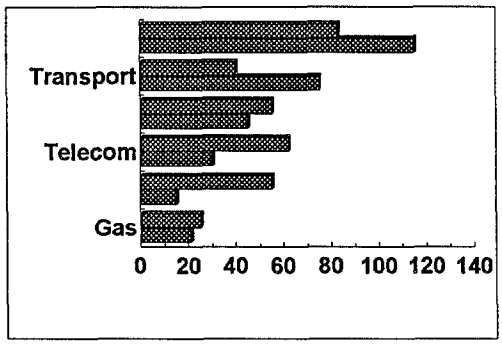
A Profile of PPI Worldwide

Private Participation in Infrastructure
Actual Projects by Sector (1984-1994)



Privatizations
New Investment

Genesis of PPI:Forces of Change

- Fiscal constraints
- Productivity slowdown
- Technological change and innovation
- Infrastructure competitiveness (e.g., Asia)
- Environmental concerns and resource scarcity
- Expanding capital markets

Benefits of PPI

- **Efficiency benefits**
  - cost savings
  - competitive discipline
    - less scope for government (subsidies)
  - access to expertise & resources
- **Fiscal benefits**
  - access to private finance
  - restructuring government liabilities
- **Capital Markets Development**
  - inflows of new capital

Spectrum of PPI Techniques

Public → **Private**

New Investments

BT	BTO	BLT	BOT	BOOT	BOO

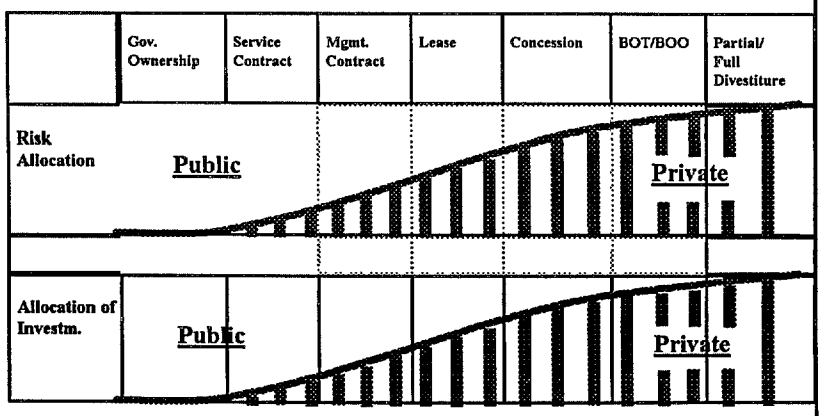
Privatization

Full Government Ownership	Service Contracts	Management Contracts	Lease	Concession	Partial/Full Divestiture

Options for PPI

Option	Ownership	Financing	Management
Service Contract	Public	Public	Public/Private
Mgmt. Contract	Public	Public	Private
Lease	Public	Public	Private
Concession	Public/Private	Private	Private
BOT	Priv. then Pub.	Private	Private
BOO/Full Divest.	Private	Private	Private

Options for PPI
(Allocation of Risk and Investment)



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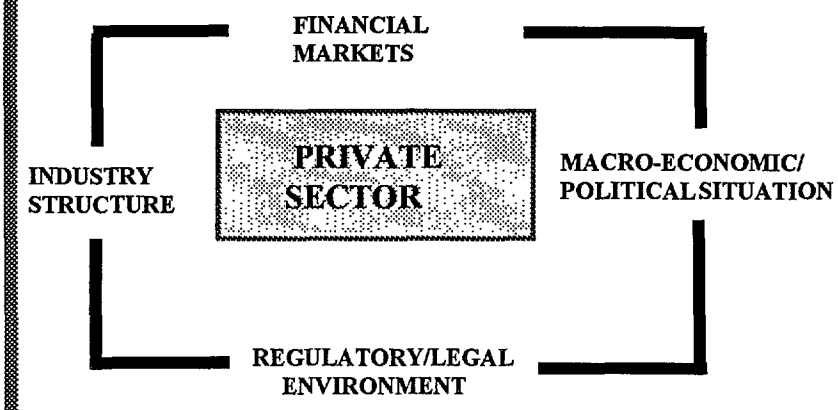
Factors Affecting Entry Conditions



Factors Affecting Entry Conditions (cont'd.)

Macro-Economic/Political Situation

- Political environment
- Political consensus on role of the private sector
- Economic growth
- Inflation
- Exchange rate/Currency risk

Factors Affecting Entry Conditions (cont'd.)

Financial Markets

- Availability of loan capital (short and long term)
- Depth of equity/debt markets
- Breadth of equity/debt markets
- Secondary markets
  - liquidity
  - transparency
  - speed/cost of transactions
  - insider trading
- Disclosure
- Securities commissions/regulation
  - level of enforcement
  - shareholder rights

Factors Affecting Entry Conditions (cont'd.)

Regulatory/Legal Environment

- Legislation permitting presence of private sector/ownership in infrastructure service
- Judicial system
- Commercial laws
- Existing and proposed industry regulatory structure

Factors Affecting Entry Conditions (cont'd.)

Industry Structure

- Size of the market and projected growth
- Level of existing competition in the market
- Threat of future competition
- Exit provisions
- Suppliers

New Role of Participants

- Government - Public Managers
  - » From direct providers/producers to regulators/contract managers/providers of last resort
- Private Sector
  - » From operator to investor/operator

Overview: The Transaction Cycle

- Make policy decisions and select transaction type
- Confirm financial, institutional, technical, political feasibility
- Bidding and evaluation process
  - background
  - structure
  - evaluation
- Negotiations and completion of transaction
- Monitor and enforce terms

Policy Decisions

- Sector structure - vertical integration or unbundling services
- Transaction structure - mode of PPI
- Extent of foreign involvement/local content
- Regulation and rate structure
- Building support of stakeholders (government, labor, existing, provider, public)

Policy Decision and Type

- Management contracts, leasing, concession
- Greenfield: BOO/BOT, licensing
- Outright privatization: Private placement (strategic investor), Initial Public Offering (IPO)

Project Feasibility

- **Experts evaluate project's feasibility:**
  - » service needs and performance targets
  - » cost recovery at various tariff levels
  - » self-financing of investments
  - » effectiveness of billing and collection
  - » institutional capability to implement and oversee
  - » cultural fit and political acceptability
  - » evaluate assets
  - » pre-privatization operational/financial restructuring
  - » valuation of assets
  - » government ownership stake
- **Confidence Building**

Need for Transparency in the Bidding Process

- Favor all bid to same transaction - "best" bidder wins
  - What constitutes "best?"
  - Is cost the major factor?
- Ample due diligence opportunities
- Involvement of financial advisors
- Pre-qualify major players only ?
  - Sensitivity regarding domestic players
  - Project scale as differentiator
- Clearly articulated evaluation parameters

Preparation of Bidding Documents

- Bidding documents should include:
  - performance targets
  - model contracts and agreements
  - existing regulatory framework / planned frameworks
  - existing tariff system
  - evaluation / award methodology
    - » qualification standards
    - » evaluation criteria
    - » participants

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Bid Evaluation and Award

- Technical Responsiveness
  - responsiveness to service quality and investment targets
- Financial Responsiveness
  - tariff rate to meet above technical targets
  - feasibility of financing package (debt service capability, access to investment capital)
  - risk mitigation

Post-Award Negotiations

- Issues which may need to be resolved through negotiation:
  - tariff revision procedure
  - regulatory and legal framework
  - environmental liabilities
  - labor issues (e.g., financing of displacement)
  - exit issues and termination of contract

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Managing the Transfer

- Capacity building of new institutions (e.g., regulatory entity)
- Creating a temporary custodian for non-transferred assets
- Transfer of assets (private placement, IPO)
- Training, outplacement and voluntary retirement programs for labor redundancies
- Managing major construction activities
- Implementing new management systems / customer relations systems

Monitor and Enforce Terms

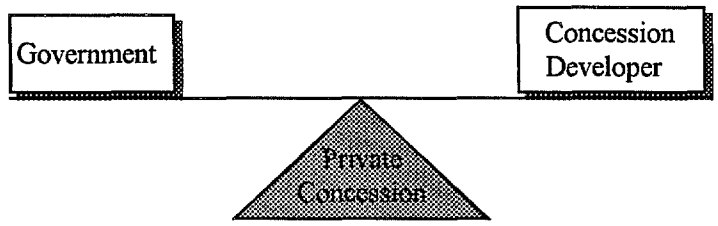
- Regulatory structure
- Performance-based
- Financial terms
- Periodic reporting
- Required divestiture
- Transfer to government (BOTs)

Government Expectation of Concession Managers

- Well established track record
- Competence, with a wide range of skills
- Long-term commitment through local presence
- Financial strength
- Realistic expectations on pricing
- Flexible approach
- Risk takers

Concession Developer's Expectation of Government

- Equitable and enforceable legal framework
- Stable political system
- Reasonable credit enhancements
- Positive economic factors
- Profit remittance
- Exclusivity of supply
- Definable cost of concession award
- Clear compensation terms under termination



If a balance between the interests is achieved, then a concession will be assured.

ECONOMIC AND FINANCIAL TOOLS FOR ASSESSING PROJECT FEASIBILITY

MODULE 2

Overview

- What is project finance?
- Economic and financial feasibility
- Tools for financial analysis
- The financial model
- Information requirements for investors

What is Project Finance?

- A financing of a particular economic unit in which lenders and/or investors are satisfied to look
  - initially to the cash flows and earnings of that economic unit as the source of debt repayment, and
  - to the assets of the economic unit as collateral

Project Financing: Why?

- Policy reform, investment needs and entrepreneurship increase demand for private-sector participation in infrastructure
- Local capital markets in developing countries unable to finance expansions or greenfield sites
- Increased need for portfolio and foreign direct investment
- International construction conglomerates and utility companies seek high yield investments abroad

Economic Feasibility Analysis

- On the basis of cash flow projects, it must be seen that sufficient cash will be generated by the project to pay for:
  - all operating expenses
  - debt service
  - taxes
  - royalties and other expenses (with an ample cushion for contingencies such as changes in exchange and interest rates, taxes, inflation and market demand)
  - and leave sufficient surplus for the project company to meet its for return on equity.

Feasibility Assessment

- extent and certainty of reserves (e.g. in extraction projects)
- likely throughput (e.g. in pipeline or tolling/processing projects)
- likely passenger or traffic flows
- costs of acquiring project site, construction and development
- availability and cost of services to project site (e.g., in energy, water, transportation and communication projects)
- access to suppliers of raw materials, either domestically or by importing; whether there are tariff or foreign exchange barrier to imports

Feasibility Assessment (cont.'d)

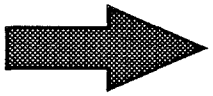
- existence of accessible markets - domestic and/or foreign - for the product or service and demand within those markets
- availability of necessary technology, management personnel and labor
- availability and transferability of operating licenses and other official permits
- projections of costs and returns, based on assumption as to interest rates, exchange rates, inflation, taxes, delays and other contingencies
- existence of any potential for added value (e.g., property development or by-product sales)
- availability of insurance against project and country risks

Financial Feasibility Analysis

- **Calculate debt service coverage and compare to investor requirements**
  - rule of thumb: 1.5 coverage, depending on riskiness of project
- **Calculate internal rate of return and compare to return on alternative investments of similar risk.**
  - required equity returns may vary anywhere from 15% to 40% depending on risk to equity investors.
- **Perform sensitivity analysis on key variables.**
  - initial capital expenditures
  - means and cost of financing
  - ridership and user charges
  - ancillary revenues
- **Analyze sensititivity of feasibility (i.e. ability to achieve adequate coverage ratios and IRR to changes in key variables.)**

Financial Feasibility

Are project cash flows sufficient to attract financing to the project?



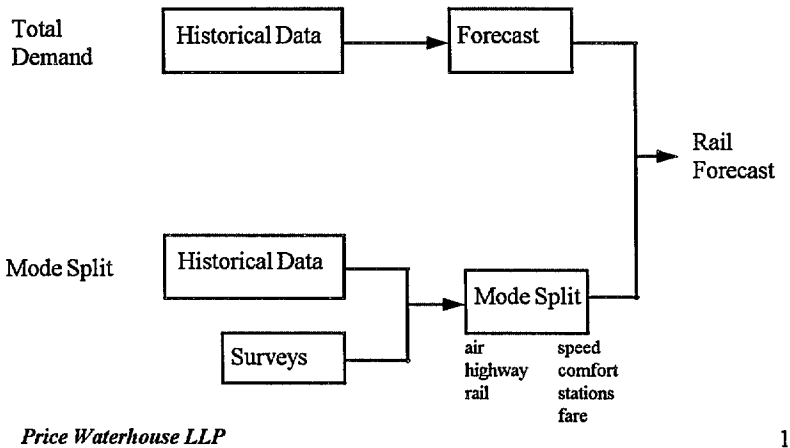
Risk and expected return of project compared to alternative investments.

Conducting a feasibility study

- Example: Revenue and Ridership Forecasts
  - identify goal of the government
    - » maximizing revenue vs. increased mobility
  - public mobility: set fares to maximize ridership
  - fare elasticity for the market/competition
  - diversion factors of other modes
  - total travel in the region

Conducting a feasibility study

- Example: Ridership and revenue forecasts



Definition of Cash Flow

Cash Flow =

Net Income + Depreciation - Capital Investment + Changes in Working Capital

Working Capital = Current Assets - Current Liabilities

Internal Rates of Return

- Using the net cash flow we can derive:
  - Net Present Value (NPV)
  - Internal Rate of Return (IRR)
  - Economic Internal Rate of Return (EIRR)

Net Present Value

- Defined as a project's cash flow over the life of the project discounted in current dollars

$$\mathbf{NPV} = C_0 + \frac{C_1}{(1+r)} + \frac{C_2}{(1+r)^2} \cdots$$

Internal Rate of Return

- An internal rate of return represents the discount rate that brings the net present value of a project's cash flow to zero
- The internal rate of return represents the cost of capital that will make the project break-even

Economic Rate of Return

- Measures a project's costs and benefits to the entire economy. This is done by re-pricing the project cash streams to represent a project's total cost or benefit to the economy (shadow pricing)
- Computed at the pre-feasibility stage and is used by policy makers to evaluate if a project should be undertaken
- Represents the discount rate that equalizes all of a project's economic costs and benefits

Cash Flow to Equity

Revenues
- Operating and Maintenance Expenses
- Depreciation

Operating Profit
- Interest Expense

Profit Before Tax
- Tax

Profit After Tax
+ Depreciation
- Principal Payments
- Increase in Working Capital
- Capital Expenditures

Cash Flow to Equity

Results

If project is determined to be feasible (i.e. investors would be willing to contribute the required debt and equity to the project) → Begin implementation

If project is *not* feasible → Re-evaluate parameters
- reduce capital costs
- increase government contribution and/or equity, and reduce amount of debt
- obtain government credit enhancements for debt to lower interest rate
- identify additional revenue sources
- increase user charges

What is a Financial Model?

- A tool for simulating the operational and financial performance of a project over time.

Application of a Financial Model

- Evaluate the financial feasibility of an individual project
- Compute a project's internal rate of return under different operational and financial assumptions
- Test the sensitivity of the revenue requirements and IRR to different input assumptions

Who Uses Financial Models?

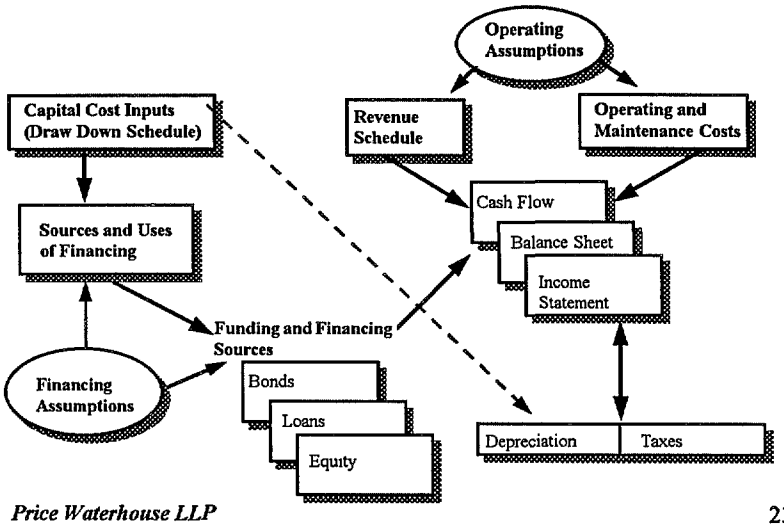
- Project sponsors/developers
- Lenders
- Regulators/evaluators
- Governments/Utilities

Structure of a Financial Model

INPUT → **MODEL** → **OUTPUT**

- Sources and uses of funds
- Income statement: earnings = revenue-expenses
- Cash flow statement: total receipts = total outlay
- Project balance sheet: assets = liabilities + equity
- Model inputs and assumptions
- Technical specifications
- Capital Costs
- Revenue
- Income tax and depreciations

Structure of a Financial Model



Information Requirements - Overview

- Credit factors are the key elements for lenders and equity holders to make an investment decision
- Information should be designed to allow investor to succinctly analyze the credit risk factors of a given project
- Packaging of these informational tools in an accessible and comprehensive manner is key
  - allows project to overcome initial level of screening by investors
  - facilitates subsequent approvals within institutions

Information Requirements - Overview

- Key informational tools for analysis include:
  - financial model
  - information memorandum
  - technical reports
- "First Impressions Count"
  - Memorandum must be error free
  - Maps/drawings/timetables very helpful

Information Requirements - Information Memorandum

- Document used to make first approach to lenders/investors
- Should allow lenders/investors to make preliminary assessment of project
- Textual description of project
- Summaries of major project agreements (e.g., power projects)
- Summary of Terms and Conditions of proposed debt or equity
  - amount of term of debt
  - convenants and negative pledges of issuer
  - risk allocation of completion and other risks
  - defaults and remedies
- Summary of financial model

Information Requirements - Technical Reports

- Market studies
- Assessment of technology to be employed
- Assessment of project site
- Environmental impact study

Feasibility Study Checklist

- Preliminary Assessments ("phase I")
  - narrowing many alternatives to a small number of technology and route options

Feasibility Study Checklist

- detailed study ("phase II"):
  - revenue and cost estimates
  - financial analysis and development structure
  - basic implementation plan
  - available budget must be effectively allocated

Feasibility Study Checklist

- Fare levels and revenue studies
  - what is the government's goal: maximizing revenue vs. mobility
  - public mobility: set fares to maximize ridership
  - fare elasticity for the market/competition
  - diversion factors of other modes
  - total travel in the region

Feasibility Study Checklist

- Capital Costs
  - detailed and based on actual condition
  - cost per mile should be an output
  - sensitive to terrain, environmental mitigation, variations in labor and materials cost
  - technology type

Feasibility Study Checklist

- Operating and Maintenance Costs
  - reflection of technology
  - sensitive to differences in service: each scenario has its own operating and maintenance cost estimate
  - fixed vs. variable operating costs: to capture changes in usage over time

Feasibility Study Checklist

- schedule of construction and timing of operations
  - must be consistent in revenue and cost scenarios, since has impact on financial analysis
  - gradual ramp-up of operations
  - scheduling of expansion

Feasibility Study Checklist

- financial parameters and assumptions
  - catalog available financing sources
  - availability
  - costs
  - advantages and disadvantages

Feasibility Study Checklist

- Financial and Development Structures
  - public development with private financing
  - operating and management contracts
  - leases and concessions
  - private development

Feasibility Study Checklist

- iteration in financial analysis
  - examine financial measures to test financing sources and development structures
  - ensure consistent assumptions among estimates
  - number of operating scenarios and financial structures tested is function of budget

Feasibility Study Checklist

- Sensitivity Analysis
  - necessary to gauge stability of financial structure
  - effects of positive and negative changes in project factors and in financial assumption
  - what is worse case scenario

Feasibility Study Checklist

- Implementation Plan

. request for qualifications and proposals

. prospectus and other information required

. legal and institutional issues

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Analyse financière préliminaire

HYPOTHESES SPÉCIFIQUES DE SCÉNARIO

Structure de développement	110-Op Contr	125-Op Contr	-125 Op Contr	110-Op Conc	125-Op Conc	0-125 Op Conc
Scénario Numéro	1	2	3	4	5	6
CALENDRIER DU DÉVELOPPEMENT						
I Début de la construction	2000	2000	2000	2000	2000	2000
I Période de construction (1ère phase)	3	3	3	3	3	3
I Début de l'exploitation (Date de mise en exploitation)	2003	2003	2003	2003	2003	2003
I Délai d'émission des bons (en années après le début de la construction)	0	0	0	0	0	0
I Délai du prêt privilégié (en années après le début de la construction)	0	0	0	0	0	0
I Délai du prêt subordonné (en années après le début de la construction)	0	0	0	0	0	0
I Année de l'émission de bons N°1	2000	2000	2000	2000	2000	2000
Période d'attente (entre les phases)	N/A	N/A	N/A	N/A	N/A	N/A
II Début de la construction de l'expansion	N/A	N/A	2010	N/A	N/A	2010
II Période de construction (2ème phase)	N/A	N/A	3	N/A	N/A	3
II Début de l exploitation de l'expansion	N/A	N/A	2013	N/A	N/A	2013
II Délai d'émission des bons (années après le début de la construction)	N/A	N/A	0	N/A	N/A	0
II Année de l'émission de bons N°2	N/A	N/A	2010	N/A	N/A	2010
CALENDRIER DES COUTS DU CAPITAL						
Coût des installations immobiles	1	2	3	1	2	3
PROJECTION DE REVENUS	1	2	3	1	2	3
Taux de croissance du prix des voyages	1 01	1 02	1 01	1 01	1 02	1 01
Période de croissance initiale (années)	1	3	3	1	1	1
Période de croissance initiale expansion (années)	N/A	N/A	3	N/A	N/A	1
REVENUS HORS GUICHET	1	2	3	1	2	3
Revenus hors guichet en % des revenus de guichet	2 0%	2 0%	2 0%	2 0%	2 0%	2 0%
ANALYSE DE SENSIBILITÉ						
Coût du capital (1 00 = base)	1 00	1 00	1 00	1 00	1 00	1 00
Frais d'exploitation (1 00 = base)	1 00	1 00	1 00	1 00	1 00	1 00
Niveau de fréquentation (1 00 = base)	1 00	1 00	1 00	1 00	1 00	1 00

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Analyse financière préliminaire

HYPOTHESES SPÉCIFIQUES DE SCÉNARIO

Structure de développement	110-Op Contr	125-Op Contr	125 Op Contr	110-Op Conc	125-Op Conc	0-125 Op Conc
Scénario Numéro	1	2	3	4	5	6
HYPOTHESES FINANCIERES						
Inflation	3 00%	3 00%	3 00%	3 00%	3 00%	3 00%
TERMES DES PRETS						
Taux des prêts à court terme	3 00%	3 00%	3 00%	3 00%	3 00%	3 00%
Taux des prêts à long terme	7 00%	7 00%	7 00%	7 00%	7 00%	7 00%
TERMES DES EMPRUNTS						
Bons privilégiés						
Taux	8 00%	8 00%	8 00%	10 50%	10 50%	10 50%
Echéance	30	30	30	30	30	30
Réserve du service de la dette	1	1	1	1	1	1
Report de remboursement du capital	3	5	5	3	3	3
Intérêts intercallaires (années)	3	3	3	3	3	3
Frais d'assurance	2 00%	2 00%	2 00%	2 00%	2 00%	2 00%
Prêts privilégiés						
Taux	9 0%	9 0%	9 0%	9 0%	9 0%	9 0%
Période de remboursement	20	20	20	20	20	20
Report de remboursement du capital	N/A	N/A	N/A	N/A	N/A	N/A
Intérêts intercallaires (années)	N/A	N/A	N/A	N/A	N/A	N/A
Droits	N/A	N/A	N/A	N/A	N/A	N/A
Prêt subordonné						
Taux	12 0%	12 0%	12 0%	12 0%	12 0%	12 0%
Période de remboursement	15	15	15	15	15	15
Report de remboursement du capital	N/A	N/A	N/A	N/A	N/A	N/A
Intérêts intercallaires (années)	N/A	N/A	N/A	N/A	N/A	N/A
Droits	N/A	N/A	N/A	N/A	N/A	N/A
Bons d'expansion						
Taux	N/A	N/	7 50%			7 50%
Période de remboursement	N/A	N/	20			20
Report de remboursement du capital	N/A	N/	5			3
Intérêts intercallaires (années)	N/A	N/	3			3
Droits	N/A	N/	2 00%			2 00%
Location de matériel roulant						
Echéance (années)	N/A	N/A	0	N/A	N/A	N/A
Droit de location année 1	N/A	N/A	N/A	N/A	N/A	N/A
Droit de location année 4-10	N/A	N/A	N/A	N/A	N/A	N/A
Droit de location année 11 et +	N/A	N/A	N/A	N/A	N/A	N/A
(au dessus et en dessous se trouvent tous les droits semi-annuels)						
Location de matériel roulant Expansion						
Echéance (années)			0			
Droit de location année 1			N/A			
Droit de location année 4-10			N/A			
Droit de location année 11 et +			N/A			

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE
Analyse financière préliminaire

HYPOTHESES SPÉCIFIQUES DE SCÉNARIO

Structure de développement	110-Op Contr	125-Op Contr	-125 Op Contr	110-Op Conc	125-Op Conc	0-125 Op Conc
Scénario Numéro	1	2	3	4	5	6
COMPOSITION DU FINANCEMENT						
INFRASTRUCTURE						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%
AMÉLIORATION DE LA STATION						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%
STATIONS SUPPLÉMENTAIRES						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%
EQUIPEMENT (MATÉRIEL ROULANT)						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%
Location			0 00%			
ATELIER D'ENTRETIEN						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%
GESTION DE LA CONSTRUCTION						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%
ACQUISITION DU DROIT DE PASSAGE						
Bons privilégiés	14 75%	17 00%	16 80%	100 00%	100 00%	100 00%
Prêt privilégié	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Prêt subordonné	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Participation privée	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
Dons du gouvernement	85 25%	83 00%	83 20%	0 00%	0 00%	0 00%

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE
Analyse financière préliminaire

HYPOTHESES SPÉCIFIQUES DE SCÉNARIO

Structure de développement	110-Op Contr	125-Op Contr	-125 Op Contr	110-Op Conc	125-Op Conc	0-125 Op Conc
Scénario Numéro	1	2	3	4	5	6
COMPOSITION DU FINANCEMENT DE L'EXPANSION						
INFRASTRUCTURE						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
AMÉLIORATION DE LA STATION						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
STATIONS SUPPLÉMENTAIRES						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
EQUIPEMENT (MATÉRIEL ROULANT)						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
Location			0 00%			
ATELIER D'ENTRETIEN						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
GESTION DE LA CONSTRUCTION						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
ACQUISITION DU DROIT DE PASSAGE						
Dette privilégiée	N/A	N/A	38 60%	N/A	N/A	0 00%
Dons du gouvernement	N/A	N/A	61 40%	N/A	N/A	100 00%
	N/A	N/A	0 00%	N/A	N/A	0 00%
AUTRES HYPOTHESES						
PAIEMENT DE FONDS PROPRES (% du flux de trésorerie)	N/A	N/A	N/A	100 00%	100 00%	100 00%
IMPOSITION FÉDÉRALE (1 = OUI)	0	0	0	1	1	1
Taux de l'impôt sur les bénéfices payé au gouvernement fédéral	34 00%	34 00%	34 00%	34 00%	34 00%	34 00%
IMPOSITION DE L'ÉTAT	0	0	0	1	1	1
Taux de l'impôt sur les bénéfices - payé à l'état	7 90%	7 90%	7 90%	7 90%	7 90%	7 90%

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

RESSOURCES ET EMPLOIS DU FINANCEMENT

EMPLOIS DES FONDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Station	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Nouvelles stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Equipement Pax (part non louée)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Gestion de la construction	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition du droit de passage	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total dépenses de capital	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Paiement des intérêts intercallaires	$27,112	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds de construction	$78,820	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds des intérêts intercallaires	$23,727	$23,727	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Réserve de service de la dette	$10,331	$10,331	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Droits financiers	$2,304	$2,304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL EMPLOIS DES FONDS	$696,236	$318,890	$186,018	$191,328	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

RESSOURCES DE FONDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bons privilégés	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prêt privilégié	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prêt subordonné	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bons d'expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Participation privée	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contribution du gouvernement	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds d'amélioration du capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds de construction	$78,820	$26,994	$25,136	$26,691	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Intérêt sur le fonds de construction	$2,886	$1,720	$969	$197	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$81,706	$28,714	$26,105	$26,888	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds des intérêts intercallaires	$23,727	$7,677	$7,907	$8,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds des intérêts intercallaires	$1,252	$650	$420	$182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur la réserve de service de la dette	$2,133	$711	$711	$711	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$27,112	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL RESSOURCES DE FONDS	$696,236	$318,890	$186,018	$191,328	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

RESSOURCES ET EMPLOIS DU FINANCEMENT

EMPLOIS DES FONDS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Infrastructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Station	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Nouvelles stations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Equipement Pax (part non louée)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Gestion de la construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition du droit de passage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total dépenses de capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Paiement des intérêts intercallaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds de construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds des intérêts intercallaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Réserve de service de la dette	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Droits financiers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL EMPLOIS DES FONDS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0						

RESSOURCES DE FONDS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bons privilégiés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prêt privilégié	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prêt subordonné	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bons d'expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Participation privée	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contribution du gouvernement	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds d'amélioration du capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds de construction	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds de construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fonds des intérêts intercallaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds des intérêts intercallaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur la réserve de service de la dette	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total partiel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL RESSOURCES DE FONDS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PROJECTIONS DES FLUX DE TRÉSORERIE

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenus des guichets (vente des billets)				$18,826	$19,650	$20,510	$21,407	$22,344	$23,322	$24,342	$25,407	$26,519	$27,679	$28,891	$30,155
Revenus hors guichets				$377	$393	$410	$428	$447	$466	$487	$508	$530	$554	$578	$603
Subvention d'exploitation															
Total revenus				$19,203	$20,043	$20,920	$21,835	$22,791	$23,788	$24,829	$25,915	$27,049	$28,233	$29,468	$30,758
Coûts d'exploitation				$13,133	$13,527	$13,932	$14,350	$14,781	$15,224	$15,681	$16,152	$16,636	$17,135	$17,649	$18,179
Flux de trésorerie d'exploitation				$6,070	$6,516	$6,988	$7,485	$8,010	$8,564	$9,148	$9,764	$10,413	$11,098	$11,819	$12,579
Intérêt sur la réserve de service de la dette				$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Intérêt sur le fonds des intérêts intercallaires (inclus dans le prélèvement)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds d'amélioration du capital				$0	$0	$0	$0	$0	$0	$0	$132	$287	$466	$671	$904
Intérêt sur le fonds d'exploitation				$45	$49	$52	$56	$60	$64	$68	$73	$78	$83	$88	$94
Total intérêts perçus				$401	$404	$407	$411	$415	$419	$424	$560	$720	$904	$1,115	$1,353
Prélèvement sur le fonds des intérêts intercallaires (inclus dans la source et l'utilisation)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie brut				$6,471	$6,920	$7,395	$7,896	$8,425	$8,983	$9,571	$10,324	$11,133	$12,002	$12,934	$13,932
Location de matériel roulant				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service de la dette des bons privilégiés				$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Service de la dette des prêts privilégiés				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service des bons d'expansion				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total location et service de la dette privilégiée				$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette privilégiée				1 25	1 34	1 43	1 53	1 63	1 74	1 85	2 00	2 16	2 32	2 50	2 70
Taux de couverture glissant, dette privilégiée				1 25	1 34	1 43	1 53	1 63	1 74	1 85	2 00	3 87	6 05	8 56	11 42
Service de la dette du prêt subordonné				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taux de couverture, dette subordonnée				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Taux de couverture glissant, dette subordonnée				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total service de la dette				$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette totale				1 25	1 34	1 43	1 53	1 63	1 74	1 85	2 00	2 16	2 32	2 50	2 70
Taux de couverture glissant, dette totale				1 25	1 34	1 43	1 53	1 63	1 74	1 85	2 00	3 87	6 05	8 56	11 42
Flux de trésorerie net après service de la dette				$1,306	$1,755	$2,230	$2,731	$3,260	$3,818	$4,406	$5,159	$5,968	$6,837	$7,768	$8,767
Contribution au fonds d'exploitation				$1,306	$1,755	$2,230	$2,731	$3,260	$3,818	$4,406	$5,159	$5,968	$6,837	$7,768	$8,767
				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan du fonds d'amélioration du capital (début de la période)				$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PROJECTIONS DES FLUX DE TRÉSORERIE

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenus des guichets (vente des billets)	$31,474	$32,851	$34,289	$35,789	$37,355	$38,990	$40,696	$42,476	$44,335	$46,275
Revenus hors guichets	$629	$657	$686	$716	$747	$780	$814	$850	$887	$925
Subvention d'exploitation										
Total revenus	$32,104	$33,508	$34,975	$36,505	$38,102	$39,769	$41,510	$43,326	$45,222	$47,200
Coûts d'exploitation	$18,724	$19,286	$19,864	$20,460	$21,074	$21,706	$22,358	$23,028	$23,719	$24,431
Flux de trésorerie d'exploitation	$13,380	$14,223	$15,110	$16,045	$17,028	$18,063	$19,152	$20,298	$21,503	$22,770
Intérêt sur la réserve de service de la dette	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Intérêt sur le fonds des intérêts intercallaires (inclus dans le prélèvement)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds d'amélioration du capital	$1,167	$1,462	$1,792	$2,158	$2,563	$3,010	$3,502	$4,042	$4,632	$5,277
Intérêt sur le fonds d'exploitation	$100	$106	$112	$119	$127	$134	$143	$151	$160	$170
Total intérêts perçus	$1,622	$1,924	$2,260	$2,633	$3,045	$3,500	$4,000	$4,549	$5,148	$5,802
Prélèvement sur le fonds des intérêts intercallaires (inclus dans la source et l'utilisation)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie brut	$15,002	$16,146	$17,370	$18,677	$20,074	$21,564	$23,153	$24,846	$26,651	$28,572
Location de matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service de la dette des bons privilégiés	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Service de la dette des prêts privilégiés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service des bons d'expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total location et service de la dette privilégiée	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette privilégiée	2 90	3 13	3 36	3 62	3 89	4 17	4.48	4 81	5 16	5 53
Taux de couverture glissant, dette privilégiée	14 66	18 30	22 38	26 91	31 94	37 50	43 63	50 35	57 72	65 77
Service de la dette du prêt subordonné	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taux de couverture, dette subordonnée	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Taux de couverture glissant, dette subordonnée	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total service de la dette	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette totale	2 90	3 13	3 36	3 62	3 89	4 17	4 48	4 81	5 16	5 53
Taux de couverture glissant, dette totale	14 66	18.30	22 38	26 91	31 94	37 50	43 63	50 35	57 72	65 77
Flux de trésorerie net après service de la dette	$9,837	$10,981	$12,205	$13,512	$14,908	$16,398	$17,987	$19,681	$21,485	$23,406
Contribution au fonds d'exploitation	$9,837	$10,981	$12,205	$13,512	$14,908	$16,398	$17,987	$19,681	$21,485	$23,406
	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan du fonds d'amélioration du capital (début de la période)	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PROJECTIONS DES FLUX DE TRÉSORERIE

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenus des guichets				$18,826	$19,650	$20,510	$21,407	$22,344	$23,322	$24,342	$25,407	$26,519	$27,679	$28,891	$30,155
Revenus hors guichets				$377	$393	$410	$428	$447	$466	$487	$508	$530	$554	$578	$603
Subvention d'exploitation															
Total revenus				$19,203	$20,043	$20,920	$21,835	$22,791	$23,788	$24,829	$25,915	$27,049	$28,233	$29,468	$30,758
Coûts d exploitation				$13,133	$13,527	$13,932	$14,350	$14,781	$15,224	$15,681	$16,152	$16,636	$17,135	$17,649	$18,179
Flux de trésorerie d'exploitation				$6,070	$6,516	$6,988	$7,485	$8,010	$8,564	$9,148	$9,764	$10,413	$11,098	$11,819	$12,579
Intérêt sur la réserve de service de la dette				$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Intérêt sur le fonds des intérêts intercallaires (inclus dans le prélèvement)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds d'amélioration du capital				$0	$0	$0	$0	$0	$0	$0	$132	$287	$466	$671	$904
Intérêt sur le fonds d'exploitation				$65	$75	$85	$96	$108	$121	$134	$150	$166	$184	$204	$224
Total intérêts perçus				$420	$430	$441	$452	$464	$476	$489	$637	$809	$1,006	$1,230	$1,484
Prélèvement sur le fonds des intérêts intercallaires (inclus dans la source et l'utilisation)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie brut				$6,490	$6,947	$7,428	$7,937	$8,474	$9,040	$9,637	$10,401	$11,222	$12,104	$13,049	$14,063
Location de matériel roulant				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service de la dette des bons privilégiés				$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Service de la dette des prêts privilégiés				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service des bons d'expansion				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total service de la dette privilégiée				$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette privilégiée				1 26	1 34	1 44	1 54	1 64	1 75	1 87	2.01	2 17	2 34	2 53	2 72
Taux de couverture glissant, dette privilégiée				1 26	1 34	1 44	1 54	1 64	1 75	1 87	2 01	3 89	6 07	8 59	11 45
Service de la dette du prêt subordonné				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taux de couverture, dette subordonnée				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Taux de couverture glissant, dette subordonnée				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total service de la dette				$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette totale				1 26	1 34	1 44	1 54	1 64	1 75	1 87	2 01	2 17	2 34	2 53	2 72
Taux de couverture glissant, dette totale				1 26	1 34	1 44	1 54	1 64	1 75	1 87	2 01	3 89	6 07	8 59	11 45
Flux de trésorerie net après service de la dette				$1,325	$1,781	$2,263	$2,772	$3,308	$3,875	$4,472	$5,236	$6,057	$6,938	$7,884	$8,898
Prélèvement sur le fonds d'exploitation				$1,306	$1,755	$2,230	$2,731	$3,260	$3,818	$4,406	$5,159	$5,968	$6,837	$7,768	$8,767
Impôts				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Répartition des participations				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions au fonds d'amélioration du capital				$0	$0	$0	$0	$0	$0	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
				$2,631	$3,536	$4,493	$5,503	$6,568	$7,692	$0	($0)	$0	$0	$0	$0
Bilan du fonds d'amélioration du capital (début de la période)				$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45 073	$60,725

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PROJECTIONS DES FLUX DE TRÉSORERIE

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenus des guichets	$31,474	$32,851	$34,289	$35,789	$37,355	$38,990	$40,696	$42,476	$44,335	$46,275
Revenus hors guichets	$629	$657	$686	$716	$747	$780	$814	$850	$887	$925
Subvention d'exploitation										
Total revenus	$32,104	$33,508	$34,975	$36,505	$38,102	$39,769	$41,510	$43,326	$45,222	$47,200
Coûts d'exploitation	$18,724	$19,286	$19,864	$20,460	$21,074	$21,706	$22,358	$23,028	$23,719	$24,431
Flux de trésorerie d'exploitation	$13,380	$14,223	$15,110	$16,045	$17,028	$18,063	$19,152	$20,298	$21,503	$22,770
Intérêt sur la réserve de service de la dette	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Intérêt sur le fonds des intérêts intercallaires (inclus dans le prélèvement)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds d'amélioration du capital	$1,167	$1,462	$1,792	$2,158	$2,563	$3,010	$3,502	$4,042	$4,632	$5,277
Intérêt sur le fonds d'exploitation	$246	$269	$294	$321	$349	$379	$410	$444	$480	$518
Total intérêts perçus	$1,769	$2,087	$2,441	$2,834	$3,267	$3,745	$4,268	$4,842	$5,468	$6,150
Prélèvement sur le fonds des intérêts intercallaires (inclus dans la source et l'utilisation)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie brut	$15,148	$16,310	$17,552	$18,879	$20,296	$21,808	$23,420	$25,139	$26,970	$28,920
Location de matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service de la dette des bons privilégiés	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Service de la dette des prêts privilégiés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service des bons d expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total service de la dette privilégiée	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette privilégiée	2 93	3 16	3 40	3 65	3 93	4 22	4 53	4 87	5 22	5 60
Taux de couverture glissant, dette privilégiée	14 69	18 33	22 41	26 95	31 99	37 55	43 68	50 41	57 78	65 83
Service de la dette du prêt subordonné	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taux de couverture, dette subordonnée	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Taux de couverture glissant, dette subordonnée	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total service de la dette	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165	$5,165
Taux de couverture, dette totale	2 93	3 16	3 40	3 65	3 93	4 22	4 53	4 87	5 22	5 60
Taux de couverture glissant, dette totale	14 69	18 33	22 41	26 95	31 99	37 55	43 68	50 41	57 78	65 83
Flux de trésorerie net après service de la dette	$9,983	$11,144	$12,386	$13,713	$15,130	$16,642	$18,255	$19,974	$21,805	$23,755
Prélèvement sur le fonds d'exploitation	$9,837	$10,981	$12,205	$13,512	$14,908	$16,398	$17,987	$19,681	$21,485	$23,406
Impôts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Répartition des participations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions au fonds d'amélioration du capital	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161
	($0)	$0	$0	$0	$0	$0	($0)	$0	($0)	($0)
Bilan du fonds d'amélioration du capital (début de la période)	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PROJECTIONS DES FLUX DE TRÉSORERIE

Base annuelle		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenus des guichets					$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815	$53,038	$55,359	$57,781	$60,309
Revenus hors guichets					$753	$786	$820	$856	$894	$933	$974	$1,016	$1,061	$1,107	$1,156	$1,206
Subvention d'exploitation																
Total revenus					$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831	$54,099	$56,466	$58,937	$61,516
Coûts d'exploitation					$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303	$33,272	$34,270	$35,298	$36,357
Flux de trésorerie d'exploitation					$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528	$20,827	$22,196	$23,638	$25,158
Intérêt sur la réserve de service de la dette					$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711
Intérêt sur le fonds des intérêts intercallaires (inclus dans le prélèvement)					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds d'amélioration du capital					$0	$0	$0	$0	$0	$0	$0	$264	$574	$932	$1,342	$1,808
Intérêt sur le fonds d'exploitation					$110	$123	$137	$152	$168	$184	$202	$222	$244	$267	$292	$318
Total intérêts perçus					$821	$834	$848	$863	$879	$895	$913	$1,197	$1,529	$1,910	$2,345	$2,837
Prélèvement sur le fonds des intérêts intercallaires (inclus dans la source et l'utilisation)					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie brut					$12,961	$13,867	$14,823	$15,833	$16,899	$18,023	$19,209	$20,725	$22,355	$24,106	$25,983	$27,995
Location de matériel roulant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service de la dette des bons privilégiés					$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Service de la dette des prêts privilégiés					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service des bons d'expansion					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total service de la dette privilégiée					$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Taux de couverture, dette privilégiée					1 25	1 34	1 43	1 53	1 64	1 74	1 86	2 01	2 16	2 33	2 52	2 71
Taux de couverture glissant, dette privilégiée					1 25	1 34	1 43	1 53	1 64	1 74	1 86	2 01	3 02	4 20	5 54	7 07
Service de la dette du prêt subordonné					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taux de couverture, dette subordonnée					#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Taux de couverture glissant, dette subordonnée					#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total service de la dette					$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Taux de couverture, dette totale					1 25	1 34	1 43	1 53	1 64	1 74	1 86	2 01	2 16	2 33	2 52	2 71
Taux de couverture glissant, dette totale					1 25	1 34	1 43	1 53	1 64	1 74	1 86	2 01	3 02	4 20	5 54	7 07
Flux de trésorerie net après service de la dette					$2,631	$3,536	$4,493	$5,503	$6,568	$7,692	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
Impôts					$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Distribution des participa Inconnu	N/A				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions au fonds d'amélioration du capital					$0	$0	$0	$0	$0	$0	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
					$2,631	$3,536	$4,493	$5,503	$6,568	$7,692	$0	$0	$0	$0	$0	$0
Bilan du fonds d'amélioration du capital (début de la période)					$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PROJECTIONS DES FLUX DE TRÉSORERIE

Base annuelle	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenus des guichets	$62,948	$65,703	$68,578	$71,578	$74,710	$77,979	$81,391	$84,953	$88,670	$92,550
Revenus hors guichets	$1,259	$1,314	$1,372	$1,432	$1,494	$1,560	$1,628	$1,699	$1,773	$1,851
Subvention d'exploitation										
Total revenus	$64,207	$67,017	$69,949	$73,010	$76,205	$79,539	$83,019	$86,652	$90,443	$94,401
Coûts d'exploitation	$37,448	$38,572	$39,729	$40,921	$42,148	$43,413	$44,715	$46,056	$47,438	$48,861
Flux de trésorerie d'exploitation	$26,759	$28,445	$30,220	$32,089	$34,056	$36,126	$38,304	$40,595	$43,005	$45,540
Intérêt sur la réserve de service de la dette	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711
Intérêt sur le fonds des intérêts intercallaires (inclus dans le prélèvement)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt sur le fonds d'amélioration du capital	$2,334	$2,925	$3,583	$4,316	$5,126	$6,021	$7,005	$8,084	$9,265	$10,554
Intérêt sur le fonds d'exploitation	$346	$375	$407	$440	$476	$513	$553	$595	$640	$688
Total intérêts perçus	$3,391	$4,011	$4,701	$5,467	$6,313	$7,245	$8,269	$9,390	$10,616	$11,952
Prélèvement sur le fonds des intérêts intercallaires (inclus dans la source et l'utilisation)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie brut	$30,150	$32,456	$34,921	$37,556	$40,369	$43,371	$46,573	$49,986	$53,621	$57,492
Location de matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service de la dette des bons privilégés	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Service de la dette des prêts privilégiés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service des bons d'expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total service de la dette privilégiée	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Taux de couverture, dette privilégiée	2 92	3 14	3 38	3 64	3 91	4 20	4 51	4 84	5 19	5 57
Taux de couverture glissant, dette privilégiée	8 80	10 73	12 89	15 28	17 94	20 86	24 08	27 61	31 47	35 68
Service de la dette du prêt subordonné	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taux de couverture, dette subordonnée	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Taux de couverture glissant, dette subordonnée	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total service de la dette	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Taux de couverture, dette totale	2 92	3 14	3 38	3 64	3 91	4 20	4 51	4 84	5 19	5 57
Taux de couverture glissant, dette totale	8 80	10 73	12 89	15 28	17 94	20 86	24 08	27 61	31 47	35 68
Flux de trésorerie net après service de la dette	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161
Impôts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Distribution des participa. inconnu	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions au fonds d'amélioration du capital	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161
	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan du fonds d'amélioration du capital (début de la période)	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

BONS PRIVILÉGIÉS

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$115,182	$115,182	$115,182	$115,182	$113,863	$112,439	$110,901	$109,240	$107,446	$105,509	$103,416	$101,156	$98,716	$96,080	$93,233
Intérêt	$4,519	$4,519	$4,519	$4,519	$4,467	$4,411	$4,351	$4,286	$4,215	$4,139	$4,057	$3,968	$3,873	$3,769	$3,658
Paiements du principal	$0	$0	$0	$647	$698	$754	$815	$880	$950	$1,026	$1,108	$1,197	$1,293	$1,396	$1,508
Bilan final	$115,182	$115,182	$115,182	$114,535	$113,165	$111,685	$110,086	$108,360	$106,496	$104,482	$102,308	$99,959	$97,423	$94,684	$91,725

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$115,182	$115,182	$115,182	$114,535	$113,165	$111,685	$110,086	$108,360	$106,496	$104,482	$102,308	$99,959	$97,423	$94,684	$91,725
Intérêt	$4,519	$4,519	$4,519	$4,493	$4,440	$4,381	$4,319	$4,251	$4,178	$4,099	$4,014	$3,921	$3,822	$3,714	$3,598
Paiements du principal	$0	$0	$0	$672	$726	$784	$847	$914	$987	$1,066	$1,152	$1,244	$1,343	$1,451	$1,567
Bilan final	$115,182	$115,182	$115,182	$113,863	$112,439	$110,901	$109,240	$107,446	$105,509	$103,416	$101,156	$98,716	$96,080	$93,233	$90,158

Annuel	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$115,182	$115,182	$115,182	$115,182	$113,863	$112,439	$110,901	$109,240	$107,446	$105,509	$103,416	$101,156	$98,716	$96,080	$93,233
Intérêt	$9,037	$9,037	$9,037	$9,012	$8,906	$8,792	$8,669	$8,537	$8,393	$8,238	$8,071	$7,890	$7,695	$7,484	$7,256
Paiements du principal	$0	$0	$0	$1,319	$1,424	$1,538	$1,661	$1,794	$1,937	$2,092	$2,260	$2,441	$2,636	$2,847	$3,075
Bilan final	$115,182	$115,182	$115,182	$113,863	$112,439	$110,901	$109,240	$107,446	$105,509	$103,416	$101,156	$98,716	$96,080	$93,233	$90,158

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

BONS PRIVILÉGIÉS

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bilan initial	$90,158	$86,838	$83,252	$79,379	$75,196	$70,678	$65,799	$60,530	$54,839	$48,693	$42,056	$34,887	$27,145	$18,783	$9,753	$0
Intérêt	$3,537	$3,407	$3,266	$3,114	$2,950	$2,773	$2,581	$2,375	$2,151	$1,910	$1,650	$1,369	$1,065	$737	$383	$0
Paiements du principal	$1,628	$1,759	$1,899	$2,051	$2,215	$2,393	$2,584	$2,791	$3,014	$3,255	$3,515	$3,797	$4,100	$4,428	$4,783	$0
Bilan final	$88,530	$85,079	$81,352	$77,327	$72,981	$68,286	$63,216	$57,740	$51,826	$45,439	$38,540	$31,091	$23,045	$14,355	$4,970	$0

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bilan initial	$88,530	$85,079	$81,352	$77,327	$72,981	$68,286	$63,216	$57,740	$51,826	$45,439	$38,540	$31,091	$23,045	$14,355	$4,970	$0
Intérêt	$3,473	$3,338	$3,191	$3,034	$2,863	$2,679	$2,480	$2,265	$2,033	$1,783	$1,512	$1,220	$904	$563	$195	$0
Paiements du principal	$1,692	$1,828	$1,974	$2,132	$2,302	$2,486	$2,685	$2,900	$3,132	$3,383	$3,653	$3,946	$4,261	$4,602	$4,970	$0
Bilan final	$86,838	$83,252	$79,379	$75,196	$70,678	$65,799	$60,530	$54,839	$48,693	$42,056	$34,887	$27,145	$18,783	$9,753	$0	$0

Annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Bilan initial	$90,158	$86,838	$83,252	$79,379	$75,196	$70,678	$65,799	$60,530	$54,839	$48,693	$42,056	$34,887	$27,145	$18,783	$9,753	$0
Intérêt	$7,010	$6,744	$6,457	$6,148	$5,813	$5,452	$5,061	$4,640	$4,185	$3,693	$3,162	$2,588	$1,969	$1,300	$578	$0
Paiements du principal	$3,320	$3,586	$3,873	$4,183	$4,517	$4,879	$5,269	$5,691	$6,146	$6,638	$7,169	$7,742	$8,362	$9,030	$9,753	$0
Bilan final	$86,838	$83,252	$79,379	$75,196	$70,678	$65,799	$60,530	$54,839	$48,693	$42,056	$34,887	$27,145	$18,783	$9,753	$0	$0

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

RÉSERVE POUR LE SERVICE DE LA DETTE

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Contributions	$10,331	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Prélèvements sur le compte	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Bilan final	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Prélèvements sur le compte	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Bilan final	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331

Compte annuel	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Contributions	$10,331	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711
Prélèvements sur le compte	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711
Bilan final	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

RÉSERVE POUR LE SERVICE DE LA DETTE

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Prélèvements sur le compte	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Bilan final	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Prélèvements sur le compte	$355	$355	$355	$355	$355	$355	$355	$355	$355	$355
Bilan final	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331

Compte annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711
Prélèvements sur le compte	$711	$711	$711	$711	$711	$711	$711	$711	$711	$711
Bilan final	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

FONDS DES INTÉRETS INTERCALLAIRES (Bons privilégiés et d'expansion)

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$23,727	$16,051	$8,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$353	$239	$121	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transferts en provenance d'autres comptes	$355	$355	$355	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements sur le compte	$4,519	$4,519	$4,519	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$19,917	$12,127	$4,102	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$19,917	$12,127	$4,102	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$297	$181	$61	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transferts en provenance d'autres comptes	$355	$355	$355	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements sur le compte	$4,519	$4,519	$4,519	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$16,051	$8,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Annuel	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$23,727	$16,051	$8,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$650	$420	$182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transferts en provenance d'autres comptes	$711	$711	$711	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements sur le compte	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$16,051	$8,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

FONDS DES INTÉRETS INTERCALLAIRES (Bons privilégiés et d'expansion)

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transferts en provenance d'autres comptes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements sur le compte	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transferts en provenance d'autres comptes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements sur le compte	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transferts en provenance d'autres comptes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements sur le compte	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

DONS DU GOUVERNEMENT

1ère moitié		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial		$0	$165,957	316,833	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Dons additionnels		$82,978	$75,438	$77,701	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final		$82,978	$241,395	394,534	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
2ème moitié		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Bilan initial		$82,978	$241,395	394,534	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Dons additionnels		$82,978	$75,438	77,701	0	0	0	0	0	$0	$0	$0	$0	$0	$0	$0
Bilan final		$165,957	$316,833	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Annuel		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Bilan initial		$0	$165,957	$316,833	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Dons additionnels		$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final		$165,957	$316,833	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
		$165,957	old formula													
Dons du gouvernement	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subvention d'exploitation	$0															
Total contributions publiques	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions au fonds d'amélioration du capital	$401,580				$0	$0	$0	$0	$0	$0	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
Impôts payés par le projet	$0				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total revenus du gouvernement	$401,580	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
Revenu net du gouvernement	($70,656)	($165,957)	($150,876)	($155,403)	$0	$0	$0	$0	$0	$0	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
Taux de revenu interne sur la participation=	0.3%															

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

DONS DU GOUVERNEMENT

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Dons additionnels	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Dons additionnels	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236

Annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236
Dons additionnels	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236	472,236

Dons du gouvernement	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subvention d'exploitation										
Total contributions publiques	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions au fonds d'amélioration du capital	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161
Impôts payés par le projet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total revenus du gouvernement	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161
Revenu net du gouvernement	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161

Taux de revenu interne sur la participation=

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

FONDS DE CONSTRUCTION (FINANCÉ PAR ÉMISSION DE CRÉANCE)

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$51,826	$26,691	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements bruts pour la construction	$14,357	$13,052	$13,444	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$960	$577	$197	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$65,423	$39,351	$13,444	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$65,423	$39,351	$13,444	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements brut pour la construction	$14,357	$13,052	$13,444	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$760	$292	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$51,826	$26,691	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Compte annuel	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$51,826	$26,691	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements brut pour la construction	$28,714	$26,105	$26,888	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$1,720	$969	$197	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$51,826	$26,691	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

FONDS DE CONSTRUCTION (FINANCÉ PAR ÉMISSION DE CRÉANCE)

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements bruts pour la construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements brut pour la construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Compte annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prélèvements brut pour la construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêts perçus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

FONDS D'AMÉLIORATION DU CAPITAL

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725
Contributions*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$132	$287	$466	$671	$904
Distributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($132)	($287)	($466)	($671)	($904)
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725
Contributions*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$10,395	$12,025	$13,775	$15,653	$17,665
Distributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725	$78,390

Annuel	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725
Contributions*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$10,527	$12,312	$14,241	$16,324	$18,569
Distributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($132)	($287)	($466)	($671)	($904)
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725	$78,390

*Les intérêts perçus sur le fonds d'amélioration du capital sont inclus dans les contributions

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

FONDS D'AMÉLIORATION DU CAPITAL

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419
Contributions*	$1,167	$1,462	$1,792	$2,158	$2,563	$3,010	$3,502	$4,042	$4,632	$5,277
Distributions	($1,167)	($1,462)	($1,792)	($2,158)	($2,563)	($3,010)	($3,502)	($4,042)	($4,632)	($5,277)
Bilan final	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419
Contributions*	$19,820	$22,125	$24,591	$27,225	$30,039	$33,041	$36,242	$39,655	$43,291	$47,161
Distributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419	401,580

Annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$78,390	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419
Contributions*	$20,987	$23,588	$26,383	$29,383	$32,602	$36,051	$39,745	$43,697	$47,923	$52,438
Distributions	($1,167)	($1,462)	($1,792)	($2,158)	($2,563)	($3,010)	($3,502)	($4,042)	($4,632)	($5,277)
Bilan final	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419	401,580

*Les intérêts perçus sur le fonds d'amélioration du capital sont inclus dans les contributions.

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PARTICIPATION PRIVÉE

1ère moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

2ème moitié	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Annuel	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

	Somme	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Contributions de participation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions de participation - déficit d'exploitation	$0															
Revenus annuels de participation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie net de participation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	$0	par année														
Taux de revenu interne sur la participation	#NUM!	sur une durée de projet de 25 années														

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

PARTICIPATION PRIVÉE

1ère moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

2ème moitié	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Annuel	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan initial	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan final	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Contributions de participation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contributions de participation - déficit d'exploitation										
Revenus annuels de participation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flux de trésorerie net de participation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Taux de revenu interne sur la participation

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

BILAN DE FIN D'ANNÉE

ACTIFS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Bilan des fonds																
Fonds d'intérêts intercallaires	$23,727	$16,051	$8,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Réserve de service de la dette	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Fonds d'amélioration du capital	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,878	$19,273	$31,298	$45,073	$60,725	$78,390
Fonds de construction	$78,820	$51,826	$26,691	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan total des fonds	$112,878	$78,208	$45,165	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$19,209	$29,603	$41,628	$55,403	$71,056	$88,721
Immobilisations																
Infrastructure	$0	$104,920	$230,999	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861
Amélioration de la station	$0	$6,114	$13,460	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027
Nouvelles stations	$0	$87	$191	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299
Matériel roulant	$0	$16,937	$37,290	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Droit de passage	$0	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391
Total coûts financiers immobilisés	$2,304	$11,095	$21,440	$32,896	$35,527	$39,063	$43,556	$49,059	$55,627	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319
Total partiel	$2,304	$186,544	$350,772	$520,727	$523,358	$526,894	$531,387	$536,890	$543,458	$551,150	$551,150	$551,150	$551,150	$551,150	$551,150	$551,150
Dépréciation accumulée	$0	$0	$0	$0	$31,036	$62,282	$93,794	$125,632	$157,860	$190,544	$223,228	$255,912	$288,597	$321,281	$353,965	$386,649
Immobilisations nettes	$2,304	$186,544	$350,772	$520,727	$492,322	$464,612	$437,593	$411,258	$385,598	$360,606	$327,922	$295,238	$262,553	$229,869	$197,185	$164,501
Total actifs	$115,182	$264,752	$395,937	$531,058	$502,653	$474,943	$447,924	$421,588	$395,928	$370,936	$347,130	$324,841	$304,182	$285,273	$268,241	$253,222
OBLIGATIONS ET PARTICIPATION DES ACTIONNAIRES																
Bons privilégiés	$115,182	$115,182	$115,182	$115,182	$113,863	$112,439	$110,901	$109,240	$107,446	$105,509	$103,416	$101,156	$98,716	$96,080	$93,233	$90,158
Prêts privilégiés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prêts subordonnés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bons d'expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total obligations	$115,182	$115,182	$115,182	$115,182	$113,863	$112,439	$110,901	$109,240	$107,446	$105,509	$103,416	$101,156	$98,716	$96,080	$93,233	$90,158
Contributions de dons publics	$0	$149,570	$280,755	$415,876	$391,214	$366,552	$341,890	$317,228	$292,565	$267,903	$243,241	$218,579	$193,917	$169,255	$144,593	$119,931
Capital privé versé	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bénéfices non distribués	$0	$0	$0	$0	($2,425)	($4,048)	($4,867)	($4,880)	($4,083)	($2,475)	$473	$5,106	11,549	19,938	30,416	43,133
Total participation des actionnaires	$0	$149,570	$280,755	$415,876	388,789	362,504	337,023	312,348	288,482	265,428	243,714	223,685	205,466	189,193	175,009	163,064
Obligations et participation des actionnaires	$115,182	$264,752	$395,937	531,058	502,652	474,943	447,924	421,588	395,928	370,936	347,130	324,841	304,182	285,273	268,241	253,222

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

BILAN DE FIN D'ANNÉE

ACTIFS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Bilan des fonds										
Fonds d'intérêts intercalaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Réserve de service de la dette	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Fonds d'amélioration du capital	$98,210	$120,335	$144,926	$172,151	$202,190	$235,231	$271,473	$311,128	$354,419	$401,580
Fonds de construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bilan total des fonds	$108,540	$130,666	$155,256	$182,482	$212,520	$245,561	$281,804	$321,459	$364,749	$411,911
Immobilisations										
Infrastructure	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861
Amélioration de la station	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027
Nouvelles stations	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299
Matériel roulant	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Droit de passage	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391	$47,391
Total coûts financiers immobilisés	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319	$63,319
Total partiel	551,150	551,150	551,150	551,150	551,150	551,150	551,150	551,150	551,150	551,150
Dépréciation accumulée	419,333	452,017	480,000	480,803	481,606	482,410	483,213	484,016	484,819	485,622
Immobilisations nettes	131,817	99,133	71,150	70,347	69,544	68,740	67,937	67,134	66,331	65,528
Total actifs	240,357	229,799	226,406	252,829	282,064	314,302	349,741	388,593	431,080	477,438
OBLIGATIONS ET PARTICIPATION DES ACTIONNAIRES										
Bons privilégiés	$86,838	$83,252	$79,379	$75,196	$70,678	$65,799	$60,530	$54,839	$48,693	$42,056
Prêts privilégiés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Prêts subordonnés	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bons d'expansion	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total obligations	$86,838	$83,252	$79,379	$75,196	$70,678	$65,799	$60,530	$54,839	$48,693	$42,056
Contributions de dons publics	$95,268	$70,606	$49,491	$48,885	$48,279	$47,673	$47,067	$46,461	$45,855	$45,249
Capital privé versé	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bénéfices non distribués	58,251	75,941	97,537	128,748	163,107	200,829	242,144	287,292	336,532	390,134
Total participation des actionnaires	153,520	146,547	147,028	177,633	211,386	248,502	289,211	333,753	382,387	435,383
Obligations et participation des actionnaires	240,357	229,799	226,406	252,829	282,064	314,302	349,741	388,593	431,080	477,439

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

COMPTE DE RÉSULTATS

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenu des guichets (vente des billets)				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815	$53,038	$55,359	$57,781	$60,309
Revenu supplémentaire				$753	$786	$820	$856	$894	$933	$974	$1,016	$1,061	$1,107	$1,156	$1,206
Subvention d'exploitation															
Total revenu				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831	$54,099	$56,466	$58,937	$61,516
Dépenses d'exploitation				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303	$33,272	$34,270	$35,298	$36,357
Dépréciation financière	$0	$0	$0	$6,374	$6,584	$6,850	$7,176	$7,566	$8,022	$8,022	$8,022	$8,022	$8,022	$8,022	$8,022
Bénéfice opérationnel				$5,766	$6,449	$7,125	$7,794	$8,454	$9,106	$10,274	$11,506	$12,805	$14,174	$15,616	$17,136
Location de matériel roulant				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt perçu				$821	$834	$848	$863	$879	$895	$913	$1,197	$1,529	$1,910	$2,345	$2,837
Coût des intérêts				$9,012	$8,906	$8,792	$8,669	$8,537	$8,393	$8,238	$8,071	$7,890	$7,695	$7,484	$7,256
Bénéfice avant taxes				($2,425)	($1,623)	($819)	($13)	$796	$1,608	$2,949	$4,633	$6,444	$8,389	$10,477	$12,717
Impôt sur le revenu perçu par le gouvernement fédéral				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu perçu par l'état				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Revenu net				($2,425)	($1,623)	($819)	($13)	$796	$1,608	$2,949	$4,633	$6,444	$8,389	$10,477	$12,717

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

COMPTE DE RÉSULTATS

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenu des guichets (vente des billets)	$62,948	$65,703	$68,578	$71,578	$74,710	$77,979	$81,391	$84,953	$88,670	$92,550
Revenu supplémentaire	$1,259	$1,314	$1,372	$1,432	$1,494	$1,560	$1,628	$1,699	$1,773	$1,851
Subvention d'exploitation										
Total revenu	$64,207	$67,017	$69,949	$73,010	$76,205	$79,539	$83,019	$86,652	$90,443	$94,401
Dépenses d'exploitation	$37,448	$38,572	$39,729	$40,921	$42,148	$43,413	$44,715	$46,056	$47,438	$48,861
Dépréciation financière	$8,022	$8,022	$6,868	$197	$197	$197	$197	$197	$197	$197
Bénéfice opérationnel	$18,737	$20 423	$23,352	$31,892	$33,859	$35,929	$38,107	$40,398	$42,808	$45,342
Location de matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt perçu	$3,391	$4,011	$4,701	$5,467	$6,313	$7,245	$8,269	$9,390	$10,616	$11,952
Coût des intérêts	$7,010	$6,744	$6,457	$6,148	$5,813	$5,452	$5,061	$4,640	$4,185	$3,693
Bénéfice avant taxes	$15,118	$17,690	$21,596	$31,211	$34,359	$37,722	$41,314	$45,149	$49,239	$53,602
Impôt sur le revenu perçu par le gouvernement fédéral	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu perçu par l'état	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Revenu net	$15,118	$17,690	$21,596	$31,211	$34,359	$37,722	$41,314	$45,149	$49,239	$53,602

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CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

ESTIMATION DES IMPOTS

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenu des guichets				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815	$53,038	$55,359	$57,781	$60,309
Revenu supplémentaire				$753	$786	$820	$856	$894	$933	$974	$1,016	$1,061	$1,107	$1,156	$1,206
Subvention d'exploitation															
Total revenu				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831	$54,099	$56,466	$58,937	$61,516
Dépenses d'exploitation				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303	$33,272	$34,270	$35,298	$36,357
Dépréciation des taxes				$13,441	$27,092	$27,359	$27,685	$28,075	$28,531	$28,531	$28,531	$28,531	$28,531	$28,531	$28,531
Bénéfice opérationnel				($1,301)	($14,060)	($13,384)	($12,715)	($12,055)	($11,403)	($10,235)	($9,003)	($7,704)	($6,335)	($4,893)	($3,373)
Location de matériel roulant				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt perçu				$821	$834	$848	$863	$879	$895	$913	$1,197	$1,529	$1,910	$2,345	$2,837
Coût des intérêts				$9,012	$8,906	$8,792	$8,669	$8,537	$8,393	$8,238	$8,071	$7,890	$7,695	$7,484	$7,256
Bénéfice avant taxes				($9,492)	($22,132)	($21,328)	($20,522)	($19,713)	($18,901)	($17,560)	($15,876)	($14,065)	($12,120)	($10,032)	($7,792)
Report de taxes pour pertes sur cinq ans				$0	($9,492)	($31,624)	($52,952)	($73,474)	($93,186)	($102,595)	($98,024)	($92,572)	($86,116)	($78,523)	($69,653)
Revenu imposable				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu perçu par le gouvernement fédéral (34%)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu perçu par l'état (9,5%)				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu fédéral et de l'état				$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

ESTIMATION DES IMPOTS

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Revenu des guichets	$62,948	$65,703	$68,578	$71,578	$74,710	$77,979	$81,391	$84,953	$88,670	$92,550
Revenu supplémentaire	$1,259	$1,314	$1,372	$1,432	$1,494	$1,560	$1,628	$1,699	$1,773	$1,851
Subvention d'exploitation										
Total revenu	$64,207	$67,017	$69,949	$73,010	$76,205	$79,539	$83,019	$86,652	$90,443	$94,401
Dépenses d'exploitation	$37,448	$38,572	$39,729	$40,921	$42,148	$43,413	$44,715	$46,056	$47,438	$48,861
Dépréciation des taxes	$28,531	$27,954	$27,377	$197	$197	$197	$197	$197	$197	$197
Bénéfice opérationnel	($1,772)	$491	$2,843	$31,892	$33,859	$35,929	$38,107	$40,398	$42,808	$45,342
Location de matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Intérêt perçu	$3,391	$4,011	$4,701	$5,467	$6,313	$7,245	$8,269	$9,390	$10,616	$11,952
Coût des intérêts	$7,010	$6,744	$6,457	$6,148	$5,813	$5,452	$5,061	$4,640	$4,185	$3,693
Bénéfice avant taxes	($5,391)	($2,242)	$1,087	$31,211	$34,359	$37,722	$41,314	$45,149	$49,239	$53,602
Report de taxes pour pertes sur cinq ans	($59,885)	($49,399)	($37,576)	($25,457)	$0	$0	$0	$0	$0	$0
Revenu imposable	$0	$0	$0	$5,755	$34,359	$37,722	$41,314	$45,149	$49,239	$53,602
Impôt sur le revenu perçu par le gouvernement fédéral (34%)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu perçu par l'état (9,5%)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Impôt sur le revenu fédéral et de l'état	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

RÉSUMÉ AMORTISSEMENT

Taux d'impôt fédéral sur le revenu des sociétés 34 00%

Taux d'impôt perçu par l'état 9 50%

				Année amortissement															
TYPE D'ACTIF	Somme	vie	Dépréciation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Infrastructure	1	15	Financière	6 6667%	6 6667%	6.6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%
Amélioration de la station	1	30	Financière	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Station supplémentaire	1	30	Financière	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3.3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Matériel roulant	1	14	Financière	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	
Atelier d'entretien	1	30	Financière	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Infrastructure	0 966666667	15	Impôt ordinaire	3 3333%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%	6 6667%
Amélioration de la station	0 983333333	30	Impôt ordinaire	1 6667%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Station supplémentaire	0 983333333	30	Impôt ordinaire	1 6667%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Matériel roulant	0 928571429	14	Impôt ordinaire	3 5714%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	7 1429%	3 5714%	
Atelier d'entretien	0 983333333	30	Impôt ordinaire	1 6667%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Infrastructure	1	15	Impôt accéléré	3 750%	7.2190%	6 6770%	6 1770%	5 7130%	5 2850%	4 8880%	4 5220%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%
Amélioration de la station	1	30	Impôt accéléré	3 750%	7 2190%	6.6770%	6 1770%	5 7130%	5 2850%	4 8880%	4 5220%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%
Station supplémentaire	1	30	Impôt accéléré	3 750%	7 2190%	6 6770%	6 1770%	5 7130%	5 2850%	4 8880%	4 5220%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%
Matériel roulant	1	14	Impôt accéléré	3 750%	7 2190%	6 6770%	6 1770%	5 7130%	5 2850%	4 8880%	4 5220%	4 4620%	4 4610%	4 4620%	4 4610%	4.4620%	4 4610%	4 4620%
Atelier d'entretien	1 16	30	Impôt accéléré	3 750%	7 2190%	6 6770%	6 1770%	5 7130%	5 2850%	4 8880%	4 5220%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	4 4620%

CORRIDOR FERROVIAIRE CHICAGO-MILWAUKEE

Analyse financière préliminaire (en milliers de dollars nominaux)

RÉSUMÉ AMORTISSEMENT

Taux d'impôt fédéral sur le revenu des sociétés

Taux d'impôt perçu par l'état

TYPE D'ACTIF	Somme	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Infrastructure	1															
Amélioration de la station	1	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Station supplémentaire	1	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Matériel roulant	1															
Atelier d'entretien	1	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Infrastructure	0 966666667															
Amélioration de la station	0 983333333	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Station supplémentaire	0 983333333	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%
Matériel roulant	0 928571429															
Atelier d'entretien	0 983333333	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3 3333%	3.3333%	3 3333%	3 3333%	3 3333%	3 3333%
Infrastructure	1	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	2 2310%									
Amélioration de la station	1	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	2 2310%									
Station supplémentaire	1	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	2 2310%									
Matériel roulant	1	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	2 2310%									
Atelier d'entretien	1 16	4 4610%	4 4620%	4 4610%	4 4620%	4 4610%	2 2310%	4 00%	4 00%	4 00%	4 00%					

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RÉCAPITULATION DES AVOIRS HORS BILAN

	Méthoamortissement fiscale 1 = ordinaire; 0 = accélérée	Valeur d'achat totale des avoirs														
Année		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Année du projet		-2	-1	0	1	2	3	4	5	6	7	8	9	10	11	12
Année d'expansion		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ACTIFS (A la date de mise en exploitation																
Infrastructure	1	$104,920	$230,999	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861
Amélioration de la station	1	$6,114	$13,460	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027
Stations supplémentaires	1	$87	$191	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299
Matériel roulant	1	$16,937	$37,290	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253
Atelier d'entretien	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ACTIFS LIÉE A L'EXPANSION																
Infrastructure	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stations supplémentaires	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Matériel roulant	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FINANCIERE ANNUELLE LIÉE AU DÉMARRAGE																
Infrastructure		$0	$0	$0	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057
Amélioration de la station		$0	$0	$0	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701
Stations supplémentaires		$0	$0	$0	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10
Matériel roulant		$0	$0	$0	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161
Atelier d'entretien		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FISCALE ANNUELLE LIÉE AU DÉMARRAGE																
Infrastructure		$0	$0	$0	$12,029	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057
Amélioration de la station		$0	$0	$0	$350	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701
Stations supplémentaires		$0	$0	$0	$5	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10
Matériel roulant		$0	$0	$0	$2,080	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161
Atelier d'entretien		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FINANCIERE ANNUELLE LIÉE A L'EXPANSION																
Infrastructure		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stations supplémentaires		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Matériel roulant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FISCALE ANNUELLE LIÉE A L'EXPANSION																
Infrastructure		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stations supplémentaires		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Matériel roulant		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FINANCIERE TOTALE ANNUELLE																
Infrastructure		$0	$0	$0	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057
Amélioration de la station		$0	$0	$0	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701
Stations supplémentaires		$0	$0	$0	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10
Matériel roulant		$0	$0	$0	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161
Atelier d'entretien		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FISCALE TOTALE ANNUELLE																
Infrastructure		$0	$0	$0	$12,029	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057	$24,057
Amélioration de la station		$0	$0	$0	$350	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701
Stations supplémentaires		$0	$0	$0	$5	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10
Matériel roulant		$0	$0	$0	$2,080	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161	$4,161
Atelier d'entretien		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

RÉCAPITULATION DES AVOIRS HORS BILAN

	2015 13 2016	2016 14 2017	2017 15 2018	2018 16 2019	2019 17 2020	2020 18 2021	2021 19 2022	2022 20 2023	2023 21 2024	2024 22 2025						
ACTIFS (A la date de mise en exploitation																
Infrastructure	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$360,861	$0	$0	$0	$0	$0	$0
Amélioration de la station	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$21,027	$0	$0	$0	$0	$0	$0
Stations supplémentaires	$299	$299	$299	$299	$299	$299	$299	$299	$299	$299	$0	$0	$0	$0	$0	$0
Matériel roulant	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$58,253	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ACTIFS LIÉE A L'EXPANSION																
Infrastructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stations supplémentaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FINANCIERE ANNUELLE LIÉE AU DÉMARRAGE																
Infrastructure	$24,057	$24,057	$24,057	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$0	$0	$0	$0	$0	$0
Stations supplémentaires	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$0	$0	$0	$0	$0	$0
Matériel roulant	$4,161	$4,161	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FISCALE ANNUELLE LIÉE AU DÉMARRAGE																
Infrastructure	$24,057	$24,057	$24,057	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701	$0	$0	$0	$0	$0	$0
Stations supplémentaires	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10	$0	$0	$0	$0	$0	$0
Matériel roulant	$4,161	$2,080	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FINANCIERE ANNUELLE LIÉE A L'EXPANSION																
Infrastructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stations supplémentaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FISCALE ANNUELLE LIÉE A L'EXPANSION																
Infrastructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Amélioration de la station	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stations supplémentaires	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Matériel roulant	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
AMORTISSEMENT FINANCIERE TOTALE ANNUELLE																
Infrastructure	$24,057	$24,057	$24,057	$0	$0	$0	$0	$0	$0	$0						
Amélioration de la station	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701						
Stations supplémentaires	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10						
Matériel roulant	$4,161	$4,161	$0	$0	$0	$0	$0	$0	$0	$0						
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0						
AMORTISSEMENT FISCALE TOTALE ANNUELLE																
Infrastructure	$24,057	$24,057	$24,057	$0	$0	$0	$0	$0	$0	$0						
Amélioration de la station	$701	$701	$701	$701	$701	$701	$701	$701	$701	$701						
Stations supplémentaires	$10	$10	$10	$10	$10	$10	$10	$10	$10	$10						
Matériel roulant	$4,161	$2,080	$0	$0	$0	$0	$0	$0	$0	$0						
Atelier d'entretien	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0						
										$711						

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Analyse de sensibilité de la structure financière
Liste de scénarios pour l'étude de cas Chicago-Milwaukee

Déscription du scénario (français)	Déscription du scénario (anglais)	page
Baisse de 10% des recettes	10% decrease in revenues	1
Augmentation de 10% des frais d'exploitation et d'entretien	10% increase in operating and maintenance costs	3
Prolongation de la période des travaux de construction de 3 ans à 4 ans	Increase construction period to 4 years	5
Augmentation de 20% des dépenses d'investissement	20% increase in capital costs	7
L'augmentation de 20% des dépenses d'investissement nécessite une augmentation de 7,5% des recettes	20% increase in capital costs requires 7.5% increase in revenues	9
Délai d'émission des bons de 2 ans	Increase bond delay to 2 years	11
3 ans de croissance initiale des recettes et prolongation du report de remboursement du capital de 3 ans à 5 ans	Increase rampup to 3 years and increase principal deferment to 5 years	13
Augmentation du taux minimum de couverture de la dette de 1,25 à 1,5	Increase debt service coverage ratio to 1.5	15
Modification des sources de fonds: 15% dette, 15% capital propre (avec distribution de 100% du cash flow net), 70% gouvernement	Change in finance mix: debt 15%, equity 15%, government 70% (equity payout 100%)	17
Réaliser un taux de revenu interne de 20% sur le capital propre: 10% capital propre (avec distribution de 77,5% du cash flow net), 90% gouvernement	Realize 20% return on equity: equity 10%, government contribution 90% (equity payout 77.5%)	20
Réaliser un taux de revenu interne de 20% sur le capital propre: 5% capital propre (avec distribution de 34% du cash flow net), 95% gouvernement	Realize 20% return on equity: equity 5%, government contribution 95% (equity payout 34%)	23
Réaliser un taux de revenu interne de 24% sur le capital propre: 10% capital propre, 90% gouvernement -- nécessite augmentation de 5,75% des recettes et une distribution de 100% du cash flow net	Realize 24% return on equity - Finance mix: equity 10%, government contribution 90% (equity payout 100% and 5.75% increase In revenues)	26

Structure financière de base

Hypothèses principales:

• période des travaux de construction de 3 ans	• croissance initiale de recettes dans la première année d'exploitation
• bons émis dès la première année de construction	• remboursement de capital commence après construction (reporté 3 ans)
• taux d'intérêt et conditions fixés	• aucun capital propre privé; 15% dette; 85% don du gouvernement
• service de dette uniforme	• 1,25 taux minimum de couverture de la dette, avec une année de réserve

A noter:

- chiffres en $ U.S. (avec syntaxe américaine)
- valeurs sont nominales dans cette présentation

INCREASE BOND DELAY TO 2 YRS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$2,550	$0	$0	$2,550	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$26,691	$0	$0	$26,691	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$2,302	$0	$0	$2,302	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$2,856	$0	$0	$2,856	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$650	$0	$0	$650	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$32,499	$0	$0	$32,499	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$588,991	$194,671	$176,981	$217,339	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$32,499	$0	$0	$32,499	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$32,499	$0	$0	$32,499	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$527,054	$194,671	$176,981	$155,403	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$26,691	$0	$0	$26,691	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$197	$0	$0	$197	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$26,888	$0	$0	$26,888	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$2,302	$0	$0	$2,302	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$52	$0	$0	$52	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$197	$0	$0	$197	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$2,550	$0	$0	$2,550	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$588,991	$194,671	$176,981	$217,339	$0	$0	$0	$0	$0	$0	$0	$0

INCREASE BOND DELAY TO 2 YRS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve				$197	$197	$197	$197	$197	$197	$197	$197
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$287	$610	$971	$1,372	$1,818	$2,310	$2,853
Interest on Operating Fund				$162	$177	$194	$211	$230	$250	$271	$293
Total Interest Earned				$358	$661	$1,000	$1,378	$1,799	$2,264	$2,778	$3,343
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$12,499	$13,694	$14,975	$16,349	$17,819	$19,392	$21,074	$22,871
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$2,856	$2,856	$2,856	$2,856	$2,856	$2,856	$2,856	$2,856
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$2,856	$2,856	$2,856	$2,856	$2,856	$2,856	$2,856	$2,856
Coverage Ratio, Senior Debt				4.38	4.79	5.24	5.72	6.24	6.79	7.38	8.01
Rolling Coverage Ratio, Senior Debt				4.38	4.79	8.62	12.89	17.65	22.92	28.75	35.17
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$2,856	$2,856	$2,856	$2,856	$2,856	$2,856	$2,856	$2,856
Coverage Ratio, Total Debt				4.38	4.79	5.24	5.72	6.24	6.79	7.38	8.01
Rolling Coverage Ratio, Total Debt				4.38	4.79	8.62	12.89	17.65	22.92	28.75	35.17
Net Cash Flow After Debt Service				$9,642	$10,837	$12,119	$13,492	$14,962	$16,535	$18,217	$20,014
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$0	$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				$9,642	$10,837	$12,119	$13,492	$14,962	$16,535	$18,217	$20,014
Capital Improvement Fund Balance (Beginning of Period)				$0	$9,642	$20,479	$32,598	$46,090	$61,052	$77,588	$95,805

20% INCREASE IN CAPITAL COSTS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Infrastructure	$433,033	$125,904	$151,295	$155,834	$0	$0	$0	$0	$0	$0	$0
Stations	$25,233	$7,336	$8,816	$9,080	$0	$0	$0	$0	$0	$0	$0
New Stations	$359	$104	$125	$129	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$69,903	$20,324	$24,423	$25,156	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$79,333	$23,066	$27,718	$28,549	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$56,869	$56,869	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$664,731	$233,605	$212,377	$218,749	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$32,534	$10,845	$10,845	$10,845	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$94,584	$94,584	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$28,473	$28,473	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$12,397	$12,397	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$2,764	$2,764	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$138,218	$138,218	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$835,483	$382,668	$223,222	$229,593	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Senior Bonds	$138,218	$138,218	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$138,218	$138,218	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$566,683	$199,148	$181,052	$186,483	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$94,584	$32,393	$30,163	$32,029	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$3,464	$2,064	$1,163	$237	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Subtotal	$98,048	$34,457	$31,326	$32,265	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$28,473	$9,212	$9,488	$9,773	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$1,502	$780	$503	$219	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$2,559	$853	$853	$853	$0	$0	$0	$0	$0	$0	$0
Subtotal	$32,534	$10,845	$10,845	$10,845	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$835,483	$382,668	$223,222	$229,593	$0	$0	$0	$0	$0	$0	$0

20% INCREASE IN CAPITAL COSTS

2010
$0
$0
$0
$0
$0
$0
$0
$0
$0
$0
$0
$0
$0
$0

2010
$0
$0
$0
$0
$0
$0
$0
$0
$0
($0)
$0
$0
$0
$0
$0
$0

20% INCREASE IN CAPITAL COSTS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974
Operating Subsidy										
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362
Operating Cash Flow				$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296
Interest on Debt Service Reserve				$853	$853	$853	$853	$853	$853	$853
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$21	$69	$147	$258	$403	$587
Interest on Operating Fund				$95	$109	$123	$139	$155	$173	$192
Total Interest Earned				$949	$983	$1,045	$1,139	$1,266	$1,429	$1,631
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$13,089	$14,016	$15,021	$16,109	$17,286	$18,557	$19,927
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$12,397	$12,397	$12,397	$12,397	$12,397	$12,397	$12,397
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$12,397	$12,397	$12,397	$12,397	$12,397	$12,397	$12,397
Coverage Ratio, Senior Debt				1.06	1.13	1.21	1.30	1.39	1.50	1.61
Rolling Coverage Ratio, Senior Debt				1.06	1.13	1.27	1.49	1.79	2.19	2.70
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$12,397	$12,397	$12,397	$12,397	$12,397	$12,397	$12,397
Coverage Ratio, Total Debt				1.06	1.13	1.21	1.30	1.39	1.50	1.61
Rolling Coverage Ratio, Total Debt				1.06	1.13	1.27	1.49	1.79	2.19	2.70
Net Cash Flow After Debt Service				$692	$1,619	$2,624	$3,712	$4,889	$6,160	$7,531
Taxes				$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Ratio = n/a				$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				$692	$1,619	$2,624	$3,712	$4,889	$6,160	$7,531
				$0	($0)	$0	($0)	$0	$0	($0)
Capital Improvement Fund Balance (Beginning of Period)				$0	$692	$2,311	$4,935	$8,648	$13,537	$19,697

81

20% INCREASE IN CAPITAL COSTS

2010
$50,815
$1,016
$51,831
$32,303
$19,528
$853
$0
$811
$212
$1,876
$0
$21,404
$0
$12,397
$0
$0
$12,397
1.73
3.32
$0
#N/A
#N/A
$12,397
1.73
3.32
$9,007
$0
$0
$9,007
$0
$27,228

82

INCREASE CONSTRUCTION PERIOD TO 4 YRS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$39,974	$9,993	$9,993	$9,993	$9,993	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$34,445	$34,445	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$11,556	$11,556	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$2,547	$2,547	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$127,369	$127,369	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$721,285	$332,033	$186,974	$192,284	$9,993	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$127,369	$127,369	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$127,369	$127,369	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$26,994	$25,136	$26,691	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Interest on Construction Fund	$2,886	$1,720	$969	$197	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$81,706	$28,714	$26,105	$26,888	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$34,445	$8,233	$8,480	$8,735	$8,997	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$2,348	$965	$718	$463	$201	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$3,181	$795	$795	$795	$795	$0	$0	$0	$0	$0	$0	$0
Subtotal	$39,974	$9,993	$9,993	$9,993	$9,993	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$721,285	$332,033	$186,974	$192,284	$9,993	$0	$0	$0	$0	$0	$0	$0

INCREASE CONSTRUCTION PERIOD TO 4 YRS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues					$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues					$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues					$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs					$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow					$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve					$795	$795	$795	$795	$795	$795	$795
Interest on Capitalized Interest Fund (incl in Drwdn)					$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund					$0	$71	$173	$308	$478	$687	$938
Interest on Operating Fund					$115	$129	$145	$162	$179	$198	$219
Total Interest Earned					$910	$996	$1,113	$1,264	$1,453	$1,681	$1,952
Capitalized Interest Fund Drawdown (incl in Source and Use)					$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow					$13,943	$14,971	$16,083	$17,284	$18,580	$19,977	$21,480
Vehicle Lease	$0	$0	$0		$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service					$11,556	$11,556	$11,556	$11,556	$11,556	$11,556	$11,556
Senior Loan Debt Service					$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service					$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service					$11,556	$11,556	$11,556	$11,556	$11,556	$11,556	$11,556
Coverage Ratio, Senior Debt					1.21	1.30	1.39	1.50	1.61	1.73	1.86
Rolling Coverage Ratio, Senior Debt					1.21	1.30	1.60	2 00	2 50	3.12	3.86
Subordinated Loan Debt Service					$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt					#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt					#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service					$11,556	$11,556	$11,556	$11,556	$11,556	$11,556	$11,556
Coverage Ratio, Total Debt					1.21	1.30	1.39	1.50	1.61	1.73	1.86
Rolling Coverage Ratio, Total Debt					1 21	1.30	1 60	2.00	2.50	3.12	3.86
Net Cash Flow After Debt Service					$2,387	$3,415	$4,527	$5,728	$7,025	$8,421	$9,924
Taxes					$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconmu					$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund					$2,387	$3,415	$4,527	$5,728	$7,025	$8,421	$9,924
					$0	$0	$0	$0	$0	($0)	$0
Capital Improvement Fund Balance (Beginning of Period)					$0	$2,387	$5,802	$10,329	$16,057	$23,082	$31,503

10% DECREASE IN REVENUES

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$27,112	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$23,727	$23,727	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$10,331	$10,331	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$2,304	$2,304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$696,236	$318,890	$186,018	$191,328	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$26,994	$25,136	$26,691	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Interest on Construction Fund	$2,886	$1,720	$969	$197	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$81,706	$28,714	$26,105	$26,888	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$23,727	$7,677	$7,907	$8,144	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$1,252	$650	$420	$182	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$2,133	$711	$711	$711	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$27,112	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$696,236	$318,890	$186,018	$191,328	$0	$0	$0	$0	$0	$0	$0	$0

10% DECREASE IN REVENUES

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$33,887	$35,370	$36,918	$38,533	$40,219	$41,979	$43,816	$45,733
Non-Farebox Revenues				$678	$707	$738	$771	$804	$840	$876	$915
Operating Subsidy											
Total Revenues				$34,565	$36,077	$37,656	$39,304	$41,024	$42,819	$44,692	$46,648
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$8,300	$9,024	$9,791	$10,603	$11,462	$12,370	$13,330	$14,345
Interest on Debt Service Reserve				$711	$711	$711	$711	$711	$711	$711	$711
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	($38)	($55)	($49)	($19)	$39	$125	$243
Interest on Operating Fund				$52	$63	$74	$86	$100	$114	$129	$145
Total Interest Earned				$763	$736	$730	$748	$792	$863	$964	$1,099
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$9,063	$9,760	$10,522	$11,351	$12,253	$13,233	$14,294	$15,443
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Coverage Ratio, Senior Debt				0.88	0.94	1.02	1.10	1.19	1.28	1.38	1.49
Rolling Coverage Ratio, Senior Debt				0.88	0.94	0.90	0.92	1.03	1.22	1.51	1.90
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Coverage Ratio, Total Debt				0.88	0.94	1.02	1.10	1 19	1.28	1.38	1.49
Rolling Coverage Ratio, Total Debt				0 88	0.94	0.90	0.92	1 03	1 22	1.51	1.90
Net Cash Flow After Debt Service				($1,267)	($570)	$191	$1,021	$1,923	$2,902	$3,964	$5,113
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconmu				$0	$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				($1,267)	($570)	$191	$1,021	$1,923	$2,902	$3,964	$5,113
				$0	$0	($0)	$0	$0	$0	($0)	$0
Capital Improvement Fund Balance (Beginning of Period)				$0	($1,267)	($1,838)	($1,647)	($626)	$1,297	$4,200	$8,164

INCREASE RAMPUP TO 3 YRS AND INCREASE PRINCIPAL DEFERRMENT TO 5 YRS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$27,182	$9,061	$9,061	$9,061	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$23,739	$23,739	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$10,610	$10,610	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$2,310	$2,310	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$115,479	$115,479	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$696,602	$319,210	$186,042	$191,351	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$115,479	$115,479	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$115,479	$115,479	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$26,994	$25,136	$26,691	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Interest on Construction Fund	$2,886	$1,720	$969	$197	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$81,706	$28,714	$26,105	$26,888	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$23,739	$7,680	$7,911	$8,148	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$1,252	$650	$420	$182	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$2,190	$730	$730	$730	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$27,182	$9,061	$9,061	$9,061	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$696,602	$319,210	$186,042	$191,351	$0	$0	$0	$0	$0	$0	$0	$0

INCREASE RAMPUP TO 3 YRS AND INCREASE PRINCIPAL DEFERRMENT TO 5 YRS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$12,551	$26,200	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$251	$524	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$12,802	$26,724	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$8,755	$18,036	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$4,047	$8,689	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve				$730	$730	$730	$730	$730	$730	$730	$730
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	($0)	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	($128)	($119)	$4	$160	$352	$584	$858
Interest on Operating Fund				($2)	$67	$134	$150	$167	$185	$204	$225
Total Interest Earned				$729	$669	$746	$884	$1,057	$1,268	$1,519	$1,813
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$4,775	$9,358	$14,721	$15,854	$17,077	$18,395	$19,814	$21,341
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$9,061	$9,061	$10,610	$10,610	$10,610	$10,610	$10,610	$10,610
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$9,061	$9,061	$10,610	$10,610	$10,610	$10,610	$10,610	$10,610
Coverage Ratio, Senior Debt				0.53	1.03	1.39	1.49	1.61	1.73	1.87	2.01
Rolling Coverage Ratio, Senior Debt				0.53	1.03	0.98	1.12	1.62	2.24	2.98	3.86
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$9,061	$9,061	$10,610	$10,610	$10,610	$10,610	$10,610	$10,610
Coverage Ratio, Total Debt				0.53	1.03	1.39	1.49	1.61	1.73	1.87	2.01
Rolling Coverage Ratio, Total Debt				0.53	1.03	0.98	1.12	1.62	2.24	2.98	3.86
Net Cash Flow After Debt Service				($4,285)	$297	$4,111	$5,244	$6,467	$7,785	$9,205	$10,731
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$0	$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				($4,285)	$297	$4,111	$5,244	$6,467	$7,785	$9,205	$10,731
Capital Improvement Fund Balance (Beginning of Period)				$0	($4,285)	($3,988)	$123	$5,368	$11,835	$19,620	$28,825

10% INCREASE IN OPERATIONS AND MAINTENANCE COSTS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$27,112	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$78,820	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$23,727	$23,727	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$10,331	$10,331	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$2,304	$2,304	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$696,236	$318,890	$186,018	$191,328	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$115,182	$115,182	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$472,236	$165,957	$150,876	$155,403	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$78,820	$26,994	$25,136	$26,691	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Interest on Construction Fund	$2,886	$1,720	$969	$197	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$81,706	$28,714	$26,105	$26,888	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$23,727	$7,677	$7,907	$8,144	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$1,252	$650	$420	$182	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$2,133	$711	$711	$711	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$27,112	$9,037	$9,037	$9,037	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$696,236	$318,890	$186,018	$191,328	$0	$0	$0	$0	$0	$0	$0	$0

10% INCREASE IN OPERATIONS AND MAINTENANCE COSTS

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$28,702	$29,563	$30,450	$31,363	$32,304	$33,273	$34,272	$35,300
Operating Cash Flow				$9,704	$10,523	$11,390	$12,308	$13,278	$14,303	$15,387	$16,531
Interest on Debt Service Reserve				$711	$711	$711	$711	$711	$711	$711	$711
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$5	$34	$91	$177	$295	$448	$638
Interest on Operating Fund				$73	$86	$99	$113	$128	$144	$162	$180
Total Interest Earned				$784	$801	$844	$915	$1,016	$1,150	$1,320	$1,529
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$10,488	$11,325	$12,234	$13,223	$14,294	$15,453	$16,707	$18,060
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Coverage Ratio, Senior Debt				1.02	1.10	1.18	1.28	1.38	1.50	1.62	1.75
Rolling Coverage Ratio, Senior Debt				1 02	1 10	1.20	1.39	1 68	2.07	2.58	3 20
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331	$10,331
Coverage Ratio, Total Debt				1.02	1.10	1.18	1.28	1.38	1.50	1.62	1.75
Rolling Coverage Ratio, Total Debt				1.02	1.10	1.20	1.39	1.68	2.07	2.58	3.20
Net Cash Flow After Debt Service				$158	$994	$1,904	$2,892	$3,963	$5,123	$6,376	$7,729
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$0	$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				$158	$994	$1,904	$2,892	$3,963	$5,123	$6,376	$7,729
				($0)	($0)	$0	$0	$0	$0	$0	$0
Capital Improvement Fund Balance (Beginning of Period)				$0	$158	$1,152	$3,055	$5,947	$9,911	$15,034	$21,410

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INCREASE DEBT SERVICE COVERAGE RATIO TO 1.5

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$2[illegible],027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$[illegible]8	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$20,219	$6,740	$6,740	$6,740	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$58,781	$58,781	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$17,695	$17,695	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$7,704	$7,704	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$1,718	$1,718	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$85,898	$85,898	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$660,059	$287,309	$183,721	$189,030	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$85,898	$85,898	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$85,898	$85,898	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$493,009	$173,257	$157,513	$162,238	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$58,781	$20,131	$18,745	$19,905	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$2,152	$1,283	$723	$147	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Subtotal	$60,934	$21,414	$19,468	$20,052	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$17,695	$5,725	$5,897	$6,074	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$933	$485	$313	$136	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$1,591	$530	$530	$530	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$20,219	$6,740	$6,740	$6,740	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$660,059	$287,309	$183,721	$189,030	$0	$0	$0	$0	$0	$0	$0	$0

INCREASE DEBT SERVICE COVERAGE RATIO TO 1.5

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve				$530	$530	$530	$530	$530	$530	$530	$530
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$152	$335	$552	$806	$1,099	$1,434	$1,815
Interest on Operating Fund				$128	$142	$158	$174	$192	$211	$231	$252
Total Interest Earned				$658	$824	$1,023	$1,257	$1,528	$1,840	$2,195	$2,597
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$12,799	$13,857	$14,998	$16,227	$17,548	$18,968	$20,491	$22,125
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$7,704	$7,704	$7,704	$7,704	$7,704	$7,704	$7,704	$7,704
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$7,704	$7,704	$7,704	$7,704	$7,704	$7,704	$7,704	$7,704
Coverage Ratio, Senior Debt				1.66	1.80	1.95	2.11	2.28	2.46	2.66	2.87
Rolling Coverage Ratio, Senior Debt				1.66	1.80	2.61	3.57	4.68	5.97	7.45	9.12
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$7,704	$7,704	$7,704	$7,704	$7,704	$7,704	$7,704	$7,704
Coverage Ratio, Total Debt				1.66	1.80	1.95	2.11	2.28	2.46	2.66	2.87
Rolling Coverage Ratio, Total Debt				1.66	1.80	2.61	3.57	4.68	5.97	7.45	9.12
Net Cash Flow After Debt Service				$5,094	$6,153	$7,294	$8,523	$9,844	$11,263	$12,787	$14,421
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$0	$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				$5,094	$6,153	$7,294	$8,523	$9,844	$11,263	$12,787	$14,421
				($0)	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund Balance (Beginning of Period)				$0	$5,094	$11,247	$18,542	$27,064	$36,908	$48,172	$60,959

CHANGE IN FINANCE MIX: DEBT 15%, EQUITY 15%, GOVERNMENT 70%, EQUITY PAYOUT 100%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$27,571	$9,190	$9,190	$9,190	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$80,156	$80,156	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$24,130	$24,130	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$10,506	$10,506	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$2,343	$2,343	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$117,134	$117,134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$698,647	$320,995	$186,171	$191,481	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$117,134	$117,134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$117,134	$117,134	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$83,091	$29,201	$26,547	$27,344	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$387,760	$136,270	$123,887	$127,603	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$80,156	$27,451	$25,562	$27,143	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$2,935	$1,749	$985	$201	($0)	($0)	($0)	($0)	($0)	($0)	($0)	($0)
Subtotal	$83,091	$29,201	$26,547	$27,344	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$24,130	$7,807	$8,041	$8,282	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$1,273	$661	$427	$185	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$2,169	$723	$723	$723	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$27,571	$9,190	$9,190	$9,190	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$698,647	$320,995	$186,171	$191,481	$0	$0	$0	$0	$0	$0	$0	$0

CHANGE IN FINANCE MIX: DEBT 15%, EQUITY 15%, GOVERNMENT 70%, EQUITY PAYOUT 100%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve				$723	$723	$723	$723	$723	$723	$723	$723
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Operating Fund				$109	$122	$136	$151	$167	$183	$201	$219
Total Interest Earned				$832	$845	$859	$874	$890	$906	$924	$942
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$12,972	$13,878	$14,834	$15,844	$16,909	$18,034	$19,219	$20,470
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$10,506	$10,506	$10,506	$10,506	$10,506	$10,506	$10,506	$10,506
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$10,506	$10,506	$10,506	$10,506	$10,506	$10,506	$10,506	$10,506
Coverage Ratio, Senior Debt				1.23	1.32	1.41	1.51	1.61	1.72	1.83	1.95
Rolling Coverage Ratio, Senior Debt				1.23	1 32	1.41	1.51	1.61	1.72	1.83	1.95
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$10,506	$10,506	$10,506	$10,506	$10,506	$10,506	$10,506	$10,506
Coverage Ratio, Total Debt				1.23	1.32	1.41	1.51	1.61	1.72	1.83	1.95
Rolling Coverage Ratio, Total Debt				1.23	1.32	1 41	1.51	1.61	1.72	1.83	1.95
Net Cash Flow After Debt Service				$2,466	$3,372	$4,329	$5,338	$6,404	$7,528	$8,714	$9,964
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$0	$0	$0	$0	$0	$0	$0	$0
Contributions to Capital Improvement Fund				$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund Balance (Beginning of Period)				$0	$0	$0	$0	$0	$0	$0	$0

CHANGE IN FINANCE MIX: DEBT 15%, EQUITY 15%, GOVERNMENT 70%, EQUITY PAYOUT 100%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

PRIVATE EQUITY

1st Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$29,201	$55,748	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091
Contributions		$14,600	$13,274	$13,672	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$14,600	$42,474	$69,420	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091
2nd Half		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Beginning Balance		$14,600	$42,474	$69,420	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091
Contributions		$14,600	$13,274	$13,672	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$29,201	$55,748	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091
Annual		**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Beginning Balance		$0	$29,201	$55,748	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091
Contributions		$29,201	$26,547	$27,344	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$29,201	$55,748	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091	$83,091
	SUM											
Equity Contributions	$83,091	$29,201	$26,547	$27,344	$0	$0	$0	$0	$0	$0	$0	$0
Equity Contribs - Op Deficit	$0											
Annual Returns to Equity	$271,296	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net Cash Flows to Equity	$188,205	($29,201)	($26,547)	($27,344)	$0	$0	$0	$0	$0	$0	$0	$0
	$5,377 per year											
Internal Rate of Return on Equity =	6.43% over first 25 years of project											

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REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 10%, GOVERNMENT CONTRIBUTION 90%, EQUITY PAYOUT 77.5%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$55,394	$19,467	$17,698	$18,229	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$498,548	$175,204	$159,283	$164,061	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 10%, GOVERNMENT CONTRIBUTION 90%, EQUITY PAYOUT 77.5%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

PRIVATE EQUITY

1st Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$19,467	$37,165	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394
Contributions		$9,734	$8,849	$9,115	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$9,734	$28,316	$46,280	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394
2nd Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$9,734	$28,316	$46,280	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394
Contributions		$9,734	$8,849	$9,115	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$19,467	$37,165	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394
Annual		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$19,467	$37,165	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394
Contributions		$19,467	$17,698	$18,229	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$19,467	$37,165	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394	$55,394
	SUM											
Equity Contributions	$55,394	$19,467	$17,698	$18,229	$0	$0	$0	$0	$0	$0	$0	$0
Equity Contribs - Op Deficit	$0											
Annual Returns to Equity	$475,423	$0	$0	$0	$9,429	$10,319	$11,130	$11,987	$12,894	$13,852	$14,865	$15,934
Net Cash Flows to Equity	$420,029	($19,467)	($17,698)	($18,229)	$9,429	$10,319	$11,130	$11,987	$12,894	$13,852	$14,865	$15,934
	$12,001	per year										
Internal Rate of Return on Equity =	20.31%	over first 25 years of project										

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 10%, GOVERNMENT CONTRIBUTION 90%, EQUITY PAYOUT 77.5%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$86	$175	$272	$375	$487	$606	$735
Interest on Operating Fund				$181	$195	$210	$226	$242	$260	$278	$297
Total Interest Earned				$181	$282	$386	$497	$617	$746	$884	$1,032
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$12,322	$13,314	$14,361	$15,467	$16,637	$17,874	$19,180	$20,560
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Senior Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Senior Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Total Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Total Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Net Cash Flow After Debt Service				$12,322	$13,314	$14,361	$15,467	$16,637	$17,874	$19,180	$20,560
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$9,429	$10,319	$11,130	$11,987	$12,894	$13,852	$14,865	$15,934
Contributions to Capital Improvement Fund				$2,893	$2,996	$3,231	$3,480	$3,743	$4,022	$4,316	$4,626
Capital Improvement Fund Balance (Beginning of Period)				$0	$2,893	$5,889	$9,120	$12,600	$16,343	$20,365	$24,681

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 5%, GOVERNMENT CONTRIBUTION 95%, EQUITY PAYOUT 34%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$27,697	$9,734	$8,849	$9,115	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$526,245	$184,937	$168,132	$173,176	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 5%, GOVERNMENT CONTRIBUTION 95%, EQUITY PAYOUT 34%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

PRIVATE EQUITY

1st Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$9,734	$18,583	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697
Contributions		$4,867	$4,425	$4,557	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$4,867	$14,158	$23,140	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697
2nd Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$4,867	$14,158	$23,140	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697
Contributions		$4,867	$4,425	$4,557	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$9,734	$18,583	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697
Annual		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$9,734	$18,583	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697
Contributions		$9,734	$8,849	$9,115	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$9,734	$18,583	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697	$27,697
	SUM											
Equity Contributions	$27,697	$9,734	$8,849	$9,115	$0	$0	$0	$0	$0	$0	$0	$0
Equity Contribs - Op Deficit	$0											
Annual Returns to Equity	$275,502	$0	$0	$0	$5,183	$5,637	$6,120	$6,632	$7,175	$7,751	$8,361	$9,008
Net Cash Flows to Equity	$247,805	($9,734)	($8,849)	($9,115)	$5,183	$5,637	$6,120	$6,632	$7,175	$7,751	$8,361	$9,008
	$7,080 per year											
Internal Rate of Return on Equity =	22.03% over the first 25 years of project											

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 5%, GOVERNMENT CONTRIBUTION 95%, EQUITY PAYOUT 34%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$40,477	$42,248	$44,096	$46,026	$48,040	$50,142	$52,336	$54,626
Non-Farebox Revenues				$810	$845	$882	$921	$961	$1,003	$1,047	$1,093
Operating Subsidy											
Total Revenues				$41,286	$43,093	$44,978	$46,946	$49,000	$51,145	$53,382	$55,718
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$15,021	$16,039	$17,113	$18,245	$19,439	$20,696	$22,020	$23,415
Interest on Debt Service Reserve				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$300	$625	$979	$1,363	$1,777	$2,225	$2,709
Interest on Operating Fund				$224	$242	$260	$280	$301	$323	$346	$370
Total Interest Earned				$224	$542	$886	$1,259	$1,663	$2,100	$2,571	$3,079
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$15,245	$16,581	$17,999	$19,505	$21,102	$22,796	$24,591	$26,494
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Senior Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Senior Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Total Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Total Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Net Cash Flow After Debt Service				$15,245	$16,581	$17,999	$19,505	$21,102	$22,796	$24,591	$26,494
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Inconnu				$5,183	$5,637	$6,120	$6,632	$7,175	$7,751	$8,361	$9,008
Contributions to Capital Improvement Fund				$10,062	$10,943	$11,879	$12,873	$13,927	$15,045	$16,230	$17,486
Capital Improvement Fund Balance (Beginning of Period)				$0	$10,062	$21,005	$32,885	$45,758	$59,685	$74,730	$90,960

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 3.25%, GOVERNMENT CONTRIBUTION 96.75%, EQUITY PAYOUT 24%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

SOURCES AND USES OF FINANCING

USES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Infrastructure	$360,861	$104,920	$126,079	$129,862	$0	$0	$0	$0	$0	$0	$0	$0
Stations	$21,027	$6,114	$7,347	$7,567	$0	$0	$0	$0	$0	$0	$0	$0
New Stations	$299	$87	$104	$108	$0	$0	$0	$0	$0	$0	$0	$0
Pax Equipment (non-leased portion)	$58,253	$16,937	$20,353	$20,963	$0	$0	$0	$0	$0	$0	$0	$0
Maintenance Facility	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Management	$66,111	$19,222	$23,098	$23,791	$0	$0	$0	$0	$0	$0	$0	$0
Acquisition of Right of Way	$47,391	$47,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital Costs	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0
Payment of Capitalized Interest	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Debt Service Reserve	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Financial Fees	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL USES OF FUNDS	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0

SOURCES OF FUNDS	TOTAL	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Senior Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subordinated Loan	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Debt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Private Equity	$18,003	$6,327	$5,752	$5,924	$0	$0	$0	$0	$0	$0	$0	$0
Government Contribution	$535,939	$188,344	$171,229	$176,366	$0	$0	$0	$0	$0	$0	$0	$0
Capital Improvement Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Construction Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Interest on Debt Service Reserve	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL SOURCES OF FUNDS	$553,942	$194,671	$176,981	$182,290	$0	$0	$0	$0	$0	$0	$0	$0

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 3.25%, GOVERNMENT CONTRIBUTION 96.75%, EQUITY PAYOUT 24%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

PRIVATE EQUITY

1st Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$6,327	$12,079	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003
Contributions		$3,163	$2,876	$2,962	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$3,163	$9,203	$15,041	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003
2nd Half		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$3,163	$9,203	$15,041	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003
Contributions		$3,163	$2,876	$2,962	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$6,327	$12,079	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003
Annual		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Beginning Balance		$0	$6,327	$12,079	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003
Contributions		$6,327	$5,752	$5,924	$0	$0	$0	$0	$0	$0	$0	$0
Ending Balance		$6,327	$12,079	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003	$18,003
	SUM											
Equity Contributions	$18,003	$6,327	$5,752	$5,924	$0	$0	$0	$0	$0	$0	$0	$0
Equity Contribs - Op Deficit	$0											
Annual Returns to Equity	$168,752	$0	$0	$0	$2,957	$3,242	$3,546	$3,869	$4,213	$4,578	$4,967	$5,381
Net Cash Flows to Equity	$150,749	($6,327)	($5,752)	($5,924)	$2,957	$3,242	$3,546	$3,869	$4,213	$4,578	$4,967	$5,381
	$4,307 per year											
Internal Rate of Return on Equity =	20.68% over first 25 years of project											

REALIZE 20% RETURN ON EQUITY - FINANCE MIX: EQUITY 3.25%, GOVERNMENT CONTRIBUTION 96.75%, EQUITY PAYOUT 24%

CHICAGO-MILWAUKEE RAIL CORRIDOR
Preliminary Financial Analysis (000's of Nominal Dollars)

CASH FLOW PROJECTIONS

Annual Basis	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Farebox Revenues				$37,653	$39,300	$41,020	$42,815	$44,688	$46,643	$48,684	$50,815
Non-Farebox Revenues				$753	$786	$820	$856	$894	$933	$974	$1,016
Operating Subsidy											
Total Revenues				$38,406	$40,086	$41,840	$43,671	$45,582	$47,576	$49,658	$51,831
Operating Costs				$26,265	$27,053	$27,865	$28,701	$29,562	$30,449	$31,362	$32,303
Operating Cash Flow				$12,140	$13,033	$13,975	$14,970	$16,020	$17,128	$18,296	$19,528
Interest on Debt Service Reserve				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capitalized Interest Fund (incl in Drwdn)				$0	$0	$0	$0	$0	$0	$0	$0
Interest on Capital Improvement Fund				$0	$279	$585	$919	$1,284	$1,681	$2,113	$2,581
Interest on Operating Fund				$181	$197	$213	$231	$249	$268	$289	$311
Total Interest Earned				$181	$476	$798	$1,149	$1,533	$1,949	$2,402	$2,892
Capitalized Interest Fund Drawdown (incl in Source and Use)				$0	$0	$0	$0	$0	$0	$0	$0
Gross Cash Flow				$12,322	$13,509	$14,773	$16,120	$17,553	$19,077	$20,698	$22,420
Vehicle Lease	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Bonds Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Senior Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Expansion Bonds Service				$0	$0	$0	$0	$0	$0	$0	$0
Total Senior Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Senior Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Senior Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Subordinated Loan Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Subordinated Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Total Debt Service				$0	$0	$0	$0	$0	$0	$0	$0
Coverage Ratio, Total Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Rolling Coverage Ratio, Total Debt				#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Net Cash Flow After Debt Service				$12,322	$13,509	$14,773	$16,120	$17,553	$19,077	$20,698	$22,420
Taxes				$0	$0	$0	$0	$0	$0	$0	$0
Equity Distributions (Payout Rati Incomu				$2,957	$3,242	$3,546	$3,869	$4,213	$4,578	$4,967	$5,381
Contributions to Capital Improvement Fund				$9,365	$10,266	$11,228	$12,251	$13,340	$14,499	$15,730	$17,039
Capital Improvement Fund Balance (Beginning of Period)				$0	$9,365	$19,631	$30,859	$43,109	$56,449	$70,948	$86,678

Caribbean Power Project

Module 3

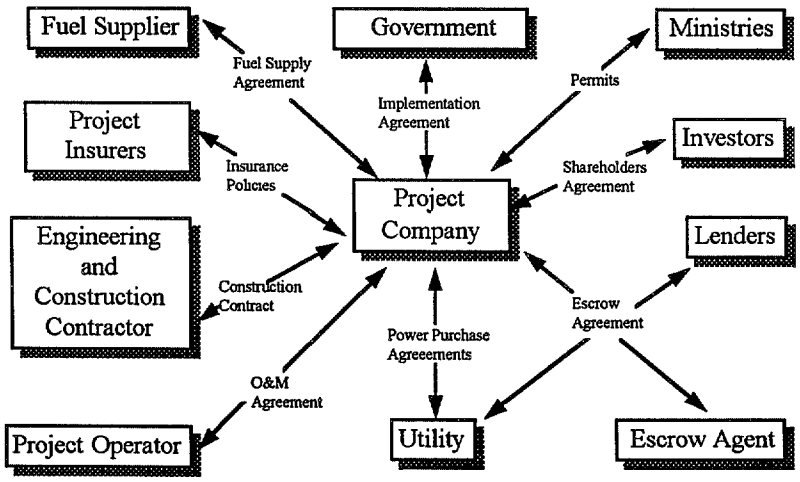
Overview of Project

- Construction and operation of a 60 MW diesel power plant
- construction duration: 24 months
- turnkey contract: design, construction, start-up and testing of power plant complex
- 20-year Power Purchase Agreement
- Operating expenses covered in form of :
  - capacity payments
  - energy payments

Overview of Results

Total Project Cost	$123,644,541
Projected 2-year bond issue (equity bonds)	$35,825,862
Projected 5-year bond issue (debt bonds)	$81,000,000
Projected total bond issue	$116,825,862
Remaining project costs will be supplied from additional equity investments and standby debt.	
Average coverage of interim period (operation years 1-3) debt (bond interest w/LC fees + additional debt)	2.63

Security Package



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Construction Period Project Financing

- Sources of construction financing
  - proceeds from the sale of 2-5 year bonds
  - cash equity investments by stockholders of Caribbean Power Project Company
  - standby debt financing

- 2-year bonds will be retired by cash equity from Caribbean Power Project Company stockholders. 5-year bonds will be retired from proceeds from the Energy Loan Fund term loan

CAPITAL COST SUMMARY - PROJECT MODEL

	Base Project Costs	Tariff Adjustments to Base	Tariff Model Proj. Costs	Project Model Projection	Project minus Tariff
CONSTRUCTION AND START-UP					
Power plant construction - EPC	$85,573,000	-$3,220,957	$82,352,043	$79,479,043	-$2,873,000
Security for EPC termination	0	300,000	300,000	300,000	$0
EPC interest on retained payments	351,051	-351,051	0	0	0
Taxes and duties	0	0	0	0	0
Operating equipment	320,000	10,880	330,880	330,880	0
Project management	1,680,000	57,122	1,737,122	2,160,000	422,878
Start-up	555,653	14,150	569,803	687,197	117,395
Site lease payments	0	120,000	120,000	120,000	0
Subtotal	88,479,704	-3,069,855	85,409,848	83,077,120	-2,332,728
FINANCE					
Equity finance costs	1,876,283	105,565	1,981,848	2,196,533	214,685
(3) Bond finance costs	3,364,250	2,378,657	5,742,907	7,292,657	1,549,750
Energy Loan Fund finance fees	1,149,474	-39,474	1,110,000	1,110,000	0
Capital cost standby debt fees	0	250,149	250,149	250,149	0
Interim period standby fees	0	0	0	0	0
(3) Net construction interest	7,296,430	1,113,446	8,409,877	7,833,412	-576,465
Miscellaneous financing costs	57,000	0	57,000	257,000	200,000
Subtotal	13,743,438	3,808,343	17,551,781	18,939,751	1,387,970
DEVELOPMENT					
Professional fees	1,028,125	34,958	1,063,083	1,578,125	515,042
Direct development costs	1,823,214	140,764	1,963,978	3,589,195	1,625,218
Subtotal	2,851,339	175,722	3,027,060	5,167,320	2,140,260
RESERVES					
Working capital	2,246,882	-35,913	2,210,969	2,235,349	24,380
Security deposits	3,000,000	0	3,000,000	3,000,000	0
Debt service reserve	3,000,000	4,000,000	7,000,000	7,000,000	0
Subtotal	8,246,882	3,964,087	12,210,969	12,235,349	24,380
BASE CAPITAL COST	113,321,362	4,878,296	118,199,658	119,419,541	1,219,883
Base Contingency	4,225,000	143,656	4,368,656	4,225,000	-143,656
Additional cost overruns	0	0	0	0	0
TOTAL PROJECT COST	117,546,362	5,021,952	122,568,314	123,644,541	1,076,227
Remaining Additional Standby	7,107,136	-5,021,952	2,085,184	1,008,958	-1,076,227
TOTAL REQUIRED FUNDS	124,653,498	0	124,653,498	124,653,498	0

FINANCE

EQUITY FINANCE COSTS

Estimated cash equity commitment		$37,396,050	
Non-sponsor cash equity commitment	65.0%	24,307,432	
Equity placement fee			
Equity placement fee on non-sponsor equity	3.5%	$850,760	
Equity letter of credit fees			
Construction duration		24 months	
Annual equity letter of credit fee %		1.00%	
Construction period equity letter of credit fees		$747,921	
JPPC will incur costs for equity letter of credit fees up to 1.0% of equity per annum. Additional costs will be borne by investors separately for their own accounts.			
Equity political risk insurance			
Political risk insurance for equity (2 yr.) bonds	1.5%	$597,852	
JPPC will incur costs for equity political risk insurance up to 1.5% of equity per annum. Additional costs will be borne by investors separately for their own accounts.			
Total equity finance costs			$2,196,533

BOND FINANCE COSTS

Estimated 2-year bond proceeds	35,825,862.27	
Estimated 5-year bond proceeds	81,000,000.00	
Total bond financing		116,825,862

	2-year bonds		5-year bonds	
Closing fees	Fee %	Amount	Fee %	Amount
Issuer placement fee	1.25%	$447,823	1.25%	$1,012,500
Investment banking fee	1.00%	358,259	1.00%	810,000
LC bank commitment fee	0.60%	214,955	2.75%	2,227,500
	2.85%	$1,021,037	5.00%	$4,050,000

CARIFA issuance fee (936 bonds only)			
Total 936 bond financing		75,000,000	
CARIFA fee		0.50%	$375,000
Political risk insurance for disbursed 5-year bond funds			
Insurance premium rate		1.25%	
Total insurance paid during construction			$1,162,490
LC bank fronting fee			
Annual fee % of bond amount		0.25%	
Total fee paid during construction			$584,129
LC bank administrative fee			
Annual fee		50,000	
Total fee paid during construction			$100,000
Total bond finance costs			$7,292,657

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ENERGY LOAN FUND TERM LOAN FEES

Energy Loan Fund commitment fee

Base Project Cost (utilized)		81,000,000		
Base Standby cost (utilized)		0		
Total Energy Loan Fund commitment			81,000,000	
Commitment fee %			0.50%	
Estimated commitment fee paid during construction			$810,000	
Energy Loan Fund monitoring fee				
Fee % of Energy Loan Fund term loan amount			0.250%	1st five year
			0.125%	thereafter
Estimated loan monitoring fee paid during construction			$300,000	
Total Loan Fund finance fees paid during construction				$1,110,000

STANDBY FINANCING FEES

Capital cost standby

Construction standby financing commitment		$6,257,449		
Projected utilization of construction standby		$5,551,179		
Placement fee (paid at Financial Closing)		$125,000		
Annual commitment fee during construction	1.00%	125,148.98		
Estimated fees - capital cost standby			$250,149	

Interim period standby

Projected 5-year bond utilization		$81,000,000		
Assumed bond interest & LC fees to be provided for by standby		1	year	
Bond interest rate (inc. LC fees) for standby calculation		5.90%		
Resulting interim period commitment		$0		
Placement fee (paid at Financial Closing)	1.25%	$0		
Annual commitment fee during construction	0.50%	-		
Estimated fees - interim period standby			$0	
Total standby financing fees				$250,149

Additional details to standby financing	Grace period from. Fin. Closing (yrs)	Amort. period (years)	Interest Rate
Capital cost standby	3.00	7.00	10.5%
Interim period standby	#N/A	#N/A	#N/A

Interim period standby commitment fee for operating years 1 - 3 1.75%

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CONSTRUCTION INTEREST

Bond interest rates

	Base Int. Rate paid	Trustee fee	Interest Rate paid	Interest Earned
2-year bonds	3.500%	0.050%	3.550%	3.140%
5-year taxable bonds	3.625%	0.050%	3.675%	3.140%
5-year 936 bonds	2.800%	0.050%	2.850%	2.860%

Letter of credit fees	2-yr bonds	5-yr bonds
LC fee rate on disbursed bond funds	1.25%	2.50%
LC fee rate on undisbursed bond funds	0.75%	0.75%

Determination of net construction interest

Calculated gross construction interest	$7,259,636	
Add letter of credit fees	3,579,158	
Less interest earned on invested bond proceeds	3,005,383	
Net construction interest		$7,833,412

MISCELLANEOUS FINANCING COSTS

Energy Loan Fund loan application fee	$2,000	
Energy Loan Fund loan processing/legal fees	20,000	
Printing, statements and bond certificates	25,000	
Bond trustee fee	10,000	
MIGA commitment fee	100,000.00	
Additional construction period insurance	100,000.00	
Inconvertibility insurance for interim period standby	-	
Total miscellaneous financing		$257,000

DEVELOPMENT

PROFESSIONAL FEES

Energy Loan Fund legal	$0	
Bond counsel	87,500	
Underwriter's counsel	65,625	
Letter of credit bank legal	400,000	
Project company legal	850,000	
Other legal	100,000	
Third party engineering review	75,000	
Subtotal professional fees	1,578,125	
Inflation adjustment	0	
Total professional fees		$1,578,125

DIRECT DEVELOPMENT COSTS

Estimated environmental assessment cost		100,000	
Letter of credit charge for performance security		20,000.00	
Project company reimbursement for other direct development costs		2,200,000	
Subtotal development costs		2,320,000.00	
Inflation adjustment		0	
Total development costs subject to direct adj.		2,320,000.00	
Base Project Cost	119,419,541		
Sponsor's development fee percent of base project cost	1%		
Sponsor's development fee		1,194,195	
KASAC permit charge		75,000	
Total direct development			$3,589,195

RESERVES

WORKING CAPITAL

	Fuel	Other costs
Starting date for working capital cost adjustments	27-Apr-92	22-Jul-92
Ending date for adjustments	1-Mar-94	1-Mar-94
Months of working capital cost adjustment	22	19
Escalation rate	0.0%	3.0%

	Base monthly cost	Allocation (Months)	Base cost	Projected Inflation adj. to FC	Total Cost
Initial fuel oil inventory	$640,582	2	$1,281,165	-	$1,281,165
Fuel oil transportation	27,135.11	2	54,270.21	-	54,270.21
Engine lubricating oil	50,980.89	2	101,962	4,885.39	106,847.17
Plant maintenance	126,704.47	2	253,409	12,141.81	265,550.76
Operating labor	69,808.33	2	139,617	6,689.58	146,306.25
Utilities	8,105.83	2	16,212	776.76	16,988.43
Supplies and services	11,390.40	2	22,781	1,091.52	23,872.32
Administrative expenses	4,166.67	2	8,333	399.28	8,732.62
Operations mgmt. fee	20,000.00	2	40,000	1,916.56	41,916.56
Site lease payments	5,000.00	2	10,000	479.14	10,479.14
Property tax	-	6	0	-	-
Insurance	46,536.84	6	279,221	-	279,221.03
	Subtotals		2,206,969	28,380	2,235,349.20

Total working capital reserve	$2,235,349
Initial cash working capital balance	$1,786,942
Annual addition to working capital cash balance	0.0%

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SECURITY DEPOSITS		
Construction security deposit	2,000,000	
Interconnection security deposit	1,000,000	
Subtotal construction security	3,000,000.00	
Inflation adjustment	0	
Total construction period security deposits		$3,000,000
Interest earned during construction on security deposits	3.5%	
Interest earned during operation on the operations security deposit	5.5%	
DEBT SERVICE RESERVE		
Funded debt service reserve		$7,000,000
JPS share of reserve benefits (interest + distribution of reserve)	70.0%	
Interest earned during operation on debt reserve funds	5.5%	

The debt reserve is maintained at the funded amount until take-out by the Energy Loan Fund. After take-out the reserve balance is maintained at the lesser of: 1) the funded amount, 2) 6-months Loan Fund debt service.

CONSTRUCTION PERIOD SOURCES AND USES OF FUNDS (con't)

Sources of funds for construction period capital costs are shown separated below into funds for the Base Project Cost, and funds for contingencies.

Proceeds from the placement of bonds will be used to fund construction costs. Upon completion of construction the 2-year issue (the "Equity Bonds") will be retired with cash equity from JPPC stockholders, committed at financial closing. The 5-year issue (the "Debt Bonds") will be retired from proceeds of the Energy Loan Fund term loan.

Sources of Funds for Base Project Cost

Base Project Cost	119,419,541	
	Percent	Amount
2-year bond proceeds backed by equity take-out	30.0%	35,825,862
Debt proceeds (5 yr. bonds + capital cost standby debt)	70.0%	83,593,679
Sources of funds for Base Project Cost		119,419,541

Sources of Funds for Standby

Total Remaining Standby	5,233,958	
Additional debt commitment	3,663,770	
JPPC stockholder cash equity commitments	1,570,187	
Sources of funds for Standby		5,233,958

STANDBY FINANCING ASSUMPTIONS

The base total standby amount is stated relative to the Base Project Cost, equal to the JPPC proposal model capital cost plus a $3.0 million allowance for the debt reserve.

Base Project Cost		113,321,362
Total Standby	10.0%	11,332,136
Utilized capital cost standby ("Base Standby")		4,225,000
Remaining capital cost standby ("Additional Standby")		1,008,958
Total capital cost standby ("Standby")		5,233,958

Pursuant to terms of the agreement with the Energy Loan Fund, funding for capital cost standby is required to consist of at least 30% equity.

		Base Standby	Additional Standby
Equity commitment	30.0%	1,267,500	302,687
Debt commitment	70.0%	2,957,500	706,270
Standby sources	100.0%	4,225,000	1,008,958

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STANDBY FINANCING ASSUMPTIONS (con't)

Sources of Financing for Base Standby

Base Standby	4,225,000	
Cash equity	1,267,500	
Additional 5-year bond proceeds backed by ELF	0	
Standby debt proceeds	2,957,500	
Sources of funds for Base Standby		4,225,000

Sources of Financing for Remaining Additional Standby

Remaining Additional Standby projection	1,008,958	
5-year bond proceeds	0	
Standby debt	706,270	
Cash equity	302,687	
Sources of funds for remaining standby		1,008,958

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FINANCING DURING THE PERIOD FROM CONSTRUCTION COMPLETION TO TERM LOAN DISBURSEMENT

SOURCES AND USES OF FUNDS AT CONSTRUCTION COMPLETION

Uses of Funds		
Retire 2-year bonds	35,825,862	
Construction contingency cost funded with equity	1,267,500	
Gross equity investment		37,093,362
Sources of Funds		
Cash equity investment		37,093,362

DETERMINATION OF NET EQUITY INVESTMENT

Security deposit transaction at construction completion	
Refund of construction and interconnection security deposits	3,000,000
Interest earned on construction period security deposits	217,197
Less operations security deposit	2,000,000
Funds available for distribution to JPPC	1,217,197
Net JPPC stockholder equity investment	
Total cash equity investment	37,093,362
Less funds available from security deposit transaction	1,217,197
Net equity investment	35,876,166

FUNDS IN PLACE AFTER CONSTRUCTION COMPLETION

	Amount	% of Project Cost
5-year bond proceeds	81,000,000	65.5%
Additional standby debt proceeds	5,551,179	4.5%
Cash equity from JPPC stockholders	37,093,362	30.0%
Total funds in place after construction completion	123,644,541	100.0%

LONG-TERM PROJECT FINANCING

When the 5-year bonds mature, they will be retired by JPPC via a term loan provided from the Energy Loan Fund.

SOURCES AND USES OF FUNDS AT TERM LOAN DISBURSEMENT

Uses of Funds	
Retire 5-year bonds	81,000,000
Sources of funds	
Energy Loan Fund term loan	81,000,000

SUMMARY OF LONG TERM FUNDING	Amount	% of Project Cost
Energy Loan Fund term loan	81,000,000	65.5%
Additional debt financing for standby	5,551,179	4.5%
Total JPPC stockholder equity investment	37,093,362	30.0%
Total funds in place after term loan disbursement	123,644,541	100.0%

ASSUMED ENERGY LOAN FUND TERMS

	Interest Rate	Term from financial closing (yrs)	Less 5-year bond term (yrs)	Amortization Period (Yrs)
Energy Loan Fund terms	9.2%	17	5	12

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Jamaica Private Power Company

Project Cashflow

Operating Year			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Calendar Year		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PRODUCTION																							
Unit #1 operating months			1	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Unit #2 operating months			0	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Dependable Capacity (kWe)			61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500
Availability			83.5%	83 5%	83 5%	83.5%	83 5%	83 5%	83 5%	83 5%	83 5%	83.5%	83 5%	83 5%	83 5%	83 5%	83 5%	83.5%	83 5%	83 5%	83.5%	83.5%	83.5%
Overall capacity factor			74.1%	74 1%	74.1%	74.1%	74.1%	74 1%	74 1%	74 1%	74 1%	74 1%	74 1%	74 1%	74.1%	74.1%	74 1%	74.1%	74 1%	74 1%	74.1%	74 1%	74.1%
Resulting average dispatch load factor			88.8%	88.8%	88 8%	88 8%	88 8%	88 8%	88 8%	88.8%	88 8%	88 8%	88 8%	88 8%	88.8%	88.8%	88.8%	88 8%	88 8%	88 8%	88 8%	88 8%	88 8%
Net electricity generation (MWh)			16,642	382,766	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408
	OVR																						
Net plant heat rate (Btu/kWh)	1.00		7,529	7,529	7,529	7,529	7,529	7,530	7,531	7,532	7,533	7,535	7,536	7,537	7,538	7,539	7,540	7,541	7,542	7,544	7,545	7,546	7,547
Fuel consumption (kGal (U.S.))			905	20,804	21,708	21,708	21,708	21,711	21,715	21,718	21,721	21,724	21,728	21,731	21,734	21,738	21,741	21,744	21,747	21,751	21,754	21,757	21,760
ELECTRICITY REVENUE																							
CAPACITY SALES																							
Total Dependable Capacity (kWe)			61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500	61,500
Base Dependable Capacity (kWe)			60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Base capacity sales rate ($/kWe-yr)			$21.59	$21.59	$23.23	$22.08	$32 59	$34.23	$33.72	$32 76	$31.79	$30 04	$29 00	$27 97	$26 49	$25 16	$24 29	$22 96	$13.05	$11 41	$11.41	$11.41	$11 41
Base capacity payment (000's)			648	14,895	16,724	15,900	23,468	24,644	24,279	23,588	22,889	21,628	20,879	20,140	19,074	18,116	17,486	16,529	9,397	8,218	8,215	8,214	8,214
Additional Dependable Capacity (kWe)			63	1,438	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Additional capacity sales rate ($/kWe-yr)		65%	$14.03	$14 03	$15.10	$14.35	$21.19	$22.25	$21.92	$21.29	$20 66	$19 53	$18 85	$18 18	$17 22	$16.36	$15 79	$14 92	$8.48	$7.42	$7.42	$7.42	$7.42
Additional capacity payment (000's)			11	242	272	258	381	400	395	383	372	351	339	327	310	294	284	269	153	134	133	133	133
Total capacity payments (000's)			658	15,137	16,995	16,159	23,850	25,044	24,674	23,971	23,261	21,980	21,218	20,467	19,384	18,411	17,770	16,798	9,549	8,351	8,348	8,348	8,348
ENERGY SALES																							
Net electricity generation (MWh)			16,642	382,766	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408	399,408
Electricity energy sales rate ($/kWh)			$0 0246	$0.0233	$0 0233	$0.0245	$0.0245	$0 0245	$0 0245	$0 0245	$0.0245	$0 0246	$0 0246	$0 0248	$0.0248	$0 0248	$0 0248	$0.0248	$0.0251	$0.0251	$0 0251	$0.0251	$0.0251
Energy payments (000's)			409	8,912	9,300	9,779	9,800	9,801	9,802	9,803	9,805	9,806	9,807	9,900	9,901	9,903	9,904	9,905	10,006	10,007	10,008	10,009	10,010
SUPPLEMENTAL TARIFF PAYMENTS			13	664	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632	632
OPERATING REVENUE (000's)			1,080	24,714	26,927	26,569	34,281	35,477	35,108	34,406	33,697	32,417	31,657	30,999	29,917	28,945	28,305	27,335	20,187	18,990	18,988	18,989	18,990
Effective power purchase rate ($/kWh)			0 0641	0.0628	0 0658	0.0649	0 0842	0.0872	0 0863	0 0846	0 0828	0 0796	0.0777	0.0760	0 0733	0.0709	0 0693	0 0669	0.0490	0 0460	0.0460	0.0460	0 0460
OPERATING EXPENSES	OVR	Esc																					
Heavy fuel oil price ($/U.S Gal)	1.00	0.0%	$0 354	$0.354	$0.354	$0 354	$0.354	$0 354	$0 354	$0 354	$0.354	$0.354	$0 354	$0.354	$0.354	$0.354	$0.354	$0 354	$0.354	$0 354	$0.354	$0.354	$0.354
Heavy fuel oil	1 00	0 0%	320	7,367	7,687	7,687	7,687	7,688	7,689	7,690	7,692	7,693	7,694	7,695	7,696	7,697	7,699	7,700	7,701	7,702	7,703	7,704	7,706
Fuel oil transportation	1.00	0 0%	14	312	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326
Engine lubricating oil	1.00	0.0%	25	586	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612	612
Variable maintenance charges	1.00	0.0%	47	606	632	1,112	1,132	1,132	1,132	1,132	1,132	1,132	1,132	1,223	1,223	1,223	1,223	1,223	1,321	1,321	1,321	1,321	1,321
Fixed maintenance charges	1.00	0 0%	32	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
Direct operating labor	1.00	0 0%	70	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838
Initial training expense		0 0%	13	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	1.00	0.0%	8	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97
Unit starts	1.00	0 0%	0	17	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Supplies and services	1.00	0 0%	11	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
Administration	1.00	0 0%	4	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Operations management fee	1.00	0.0%	20	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240
Energy Loan Fund fees	1.00	0.0%	0	463	555	555	155	75	75	75	69	60	52	44	35	27	18	10	1	0	0	0	0
LC bank fees		0 0%	0	210	253	253	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interim period standby financing expenses	1.00	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity MIGA insurance	1.00	0.0%	0	584	584	584	584	584	34	40	41	41	43	43	42	40	39	39	38	40	36	35	35
Site lease payments	1.00	0 0%	0	50	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Property tax	1.00	0 0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance	1.00	0 0%	46	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557	557
Allowance for liquidated damages to JPS			66	1,520	1,707	1,623	2,395	2,515	2,478	2,407	2,336	2,207	2,131	2,055	1,946	1,849	1,784	1,687	959	839	838	838	838
Debt reserve royalty payments to JPS			0	225	270	270	270	270	289	515	501	714	481	418	406	394	382	370	2,291	435	0	0	0
Total operating expenses (000's)			677	14,384	15,011	15,407	15,589	15,588	15,022	15,184	15,095	15,172	14,858	14,802	14,674	14,555	14,470	14,353	15,635	13,661	13,223	13,223	13,225
NET OPERATING INCOME			402	10,330	11,915	11,163	18,692	19,889	20,086	19,222	18,602	17,245	16,799	16,197	15,244	14,390	13,836	12,982	4,552	5,329	5,765	5,765	5,765

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Jamaica Private Power Company

Project Cashflow

Operating Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Calendar Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
DEBT SERVICE																						
5-YEAR BONDS																						
Beginning balance		0	81,000	81,000	81,000	81,000	0	0	0	0												
Energy Loan Fund take-out		0	0	0	0	81,000	0	0	0	0												
Post-construction interest payments	2.91%	0	1,965	2,358	2,358	393	0	0	0	0												
Letter of credit fees	1.50%	0	1,013	1,215	1,215	203	0	0	0	0												
Ending balance		0	81,000	81,000	81,000	0	0	0	0	0												
STANDBY FINANCING (Capital costs)																						
Beginning balance		0	0	5,551	4,890	4,097	3,304	2,511	1,718	925	132	0	0	0	0	0	0	0	0	0	0	0
Principal additions		0	5,551	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal payments		0	0	661	793	793	793	793	793	793	132	0	0	0	0	0	0	0	0	0	0	0
Interest payments	10.50%	0	486	569	493	409	326	243	160	76	7	0	0	0	0	0	0	0	0	0	0	0
Ending balance		0	5,551	4,890	4,097	3,304	2,511	1,718	925	132	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY FINANCING (Interim period)																						
Determination of standby requirement																						
Cash available for debt during bond period		402	10,554	12,185	11,432																	
Interim pd debt service (bond+cap cost stdby)		0	3,463	4,803	4,859																	
Shortfall in cash available for debt		0	0	0	0																	
Advances from standby funds		0	0	0	0																	
Interest accrual on advanced funds	8.70%	0	0	0	0																	
Outstanding standby		0	0	0	0																	
Beginning standby available funds		0	0	0	0																	
Advances of funds for bond interest shortfall		0	0	0	0																	
End-of-year required standby		0	0	0	0																	
Allowed reduction in standby		0	0	0	0																	
Ending standby available funds		0	0	0	0																	
Average standby outstanding balance		0	0	0	0																	
Interest payments on average outstandings		0	0	0	0																	
Amortization of interim period advances																						
Beginning balance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal additions - interest shortfall		0	0	0	0	0	0	0	0	0												
Principal payments		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest payments	8 70%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending balance		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Interim period is the period during operations prior to the ELF take out.
NOI for operating year 4 based on the number of months
in this year that bond interest is being paid

Note Model assumes any accrued interest on utilized
standby funds is added to the opening capital cost standby loan balance.
Total utilized standby funds (w/ interest) 0

Ending standby available funds is set to minimum of the initial
standby requirement and the end-of-year remaining bond interest.

Jamaica Private Power Company

Project Cashflow

Operating Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Calendar Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
DEBT SERVICE (CON'T)																						
ENERGY LOAN FUND TERM LOAN																						
Beginning balance		0	0	0	0	0	75,375	68,625	61,875	55,125	48,375	41,625	34,875	28,125	21,375	14,625	7,875	1,125	0	0	0	0
Principal additions		0	0	0	0	81,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Principal payments		0	0	0	0	5,625	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750	6,750	1,125	0	0	0	0
Interest payments	9 20%	0	0	0	0	6,107	6,779	6,158	5,537	4,916	4,295	3,674	3,053	2,432	1,811	1,190	569	52	0	0	0	0
Ending balance		0	0	0	0	75,375	68,625	61,875	55,125	48,375	41,625	34,875	28,125	21,375	14,625	7,875	1,125	0	0	0	0	0
TOTAL DEBT SERVICE																						
Bond debt service		0	2,978	3,573	3,573	596	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Standby debt service		0	486	1,230	1,286	1,202	1,119	1,036	953	869	139	0	0	0	0	0	0	0	0	0	0	0
Energy Loan Fund debt service		0	0	0	0	11,732	13,529	12,908	12,287	11,666	11,045	10,424	9,803	9,182	8,561	7,940	7,319	1,177	0	0	0	0
TOTAL DEBT SERVICE (000's)		0	3,463	4,803	4,859	13,529	14,648	13,944	13,240	12,536	11,184	10,424	9,803	9,182	8,561	7,940	7,319	1,177	0	0	0	0
CASH AVAILABLE FOR DEBT SERVICE																						
Net operating income		402	10,330	11,915	11,163	18,692	19,889	20,086	19,222	18,602	17,245	16,799	16,197	15,244	14,390	13,836	12,982	4,552	5,329	5,765	5,765	5,765
Add back debt reserve royalty to JPS		0	225	270	270	270	270	289	515	501	714	481	418	406	394	382	370	2,291	435	0	0	0
Cash avail for debt service (coverage calc)		402	10,554	12,185	11,432	18,961	20,158	20,375	19,737	19,103	17,959	17,281	16,615	15,650	14,785	14,218	13,352	6,842	5,763	5,765	5,765	5,765

DEBT COVERAGE	MIN	AVG																				
Bond debt service	3.08	3.75	#N/A	3.08	3 41	3.20	5 31															
All debt	1.38	1.79	#N/A	2.65	2 54	2.35	1 40	1.38	1 46	1.49	1 52	1.61	1 66	1 69	1 70	1.73	1.79	1.82	0.97	#N/A	#N/A	#N/A	#N/A

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SOURCES OF FINANCING AND RISK MITIGATION

MODULE 4

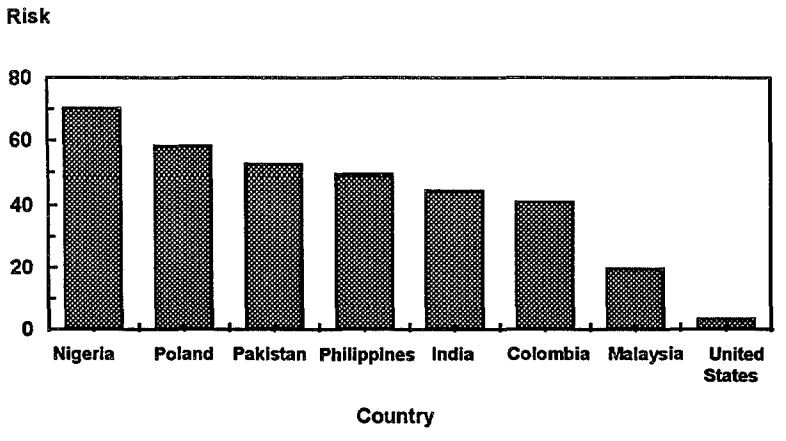
Elements of Worldwide Project Financing

- Most project financing is "non-recourse"
  - used for greenfield investments and capital expansion programs
  - lenders repaid only from project cash flow
  - if project fails, lenders may claim the project's assets, not those of the parent company
- "Limited recourse" financing offers lenders some claim on parent company's assets
- Project financing requires a clear delineation of risks

Sources of Equity

- Local Equity
  - Local investors
  - Local strategic investor
  - Local financial institutions
- Foreign Equity
  - Foreign strategic investor/operator
  - Institutional investors
  - Development banks

Country Risk Rankings 1993



Sources and Instruments of Equity Financing

Soures of Financing	Instruments
Institutional investors (e.g., pension/mutual funds, insurance)	ADRs, "144A" equities, portfolio equity positions
Infrastructure investment funds (e.g., Quantum Industrial Holdings, GE capital)	Strategic and portfolio equity positions
Development Banks (e.g., IFC)	Direct (portfolio) equity participation; guarantees
Employees	Portfolio equity position via ESOP
Infrastructure finance conglomerates and suppliers (e.g., GE Capital, ABB Funding Partners)	Strategic equity positions Issuing stock in their own name

Sources of Debt

- Local Debt
  - Commercial banks
  - Development finance institutions
- Foreign Debt
  - Foreign commercial banks
  - Export credit agencies
  - Development banks
  - Vendors/contractors
  - Institutional investors

Sources and Instruments of Debt Financing

Sources of Financing	Instruments
Commercial Banks	Short-term loans (up to 12 years) Commercial paper Certificates of Deposit
Vendors/contractors	Short-term credit
Institutional investors	Long-term bonds (e.g., 144A, senior/subordinated)
Development banks	Long-term loans, guarantees
Export Credit Agencies (e.g. OPIC)	Letters of credit, guarantees

Factors Affecting Financing: Pros and Cons of Equity

- PROS
  - equity more easily accessible
    - » 144A Securities/ADRs
    - » growth of local stock markets
  - strategic partners bring technology transfer
  - higher returns
- CONS
  - equity is more expensive
  - greater risk
    - » equity contributors have less mobility to mitigate risks

Factors Affecting Structure of Financing: Pros and Cons of Debt

- PROS
  - debt is cheaper source of financing
  - lenders have priority over shareholders
  - lenders may impose risk controls to ensure project's success
- CONS
  - loan maturities typically shorter than project life
    - short maturities make debt service difficult
  - the 30-40 banks who dominate international lending fear regional overexposure

Capital Markets -A New Source of Project Financing

- Longer maturities/lower costs
- Less focus on "Political Risk"
- Compatible with other forms of financing

Commercial Banks

- Regulatory constraints limit ability to take on new exposure
- Preference for export oriented projects
- Political risk insurance/multi-lateral co-financing often necessary
- Aversion to "completion risk" (especially non-power)
- Underlying objective: Maximum return for no risk

Export Credit Agencies

- Continue to wrestle with participating in "true project financing"
- Resource constraints
- Availability and costs vary from country to country
- Direct loans
- Guarantees: (i) comprehensive or (ii) political risk only
- Unwilling to accept completion risk

Multilateral Agencies

- Recent flexibility and aggressiveness
- Institutional and resource constrained
- Lengthy approval and documentation process

- IFC
  - Limited to private sector projects
  - A and B loan programs and equity available
  - Limited to 25% of project costs
  - Unwilling to accept completion risk

Multilateral Agencies (cont.'d)

- World Bank
  - Limited to public sector projects
  - emphasis on public works and environmentally friendly projects
  - can guarantee sovereign obligations to private sector projects

- IADB
  - new, private sector project financing effort
  - direct loans limited to $75 million
  - emphasis on public works and environmentally friendly projects

Role of Financial Advisor

- Advise clients on optimal structuring of project to raise financing
- Financial analysis and development of financial model
- Added credibility for the international financial community
- Coordinate approaches to lenders and investors
- Act as placement agent, underwriter or lender to a project

PUTTING A PROJECT OUT TO BID/TENDER

MODULE 5

International Competitive Bidding

- Objective: to provide all eligible prospective bidders with timely and adequate notification of a government's requirements and an equal opportunity to bid for the required goods and works.

Desirable Bidding Conditions

- Ample opportunity for due diligence prior to bid
- Short-listed bidders limited in number and quality
- Clearly articulated evaluation parameters
- Bid award driven equally by technical competence and financial responsiveness
- Full disclosure of regulatory framework (current and planned) and existing tariff system
- Model contracts and agreements provided
- Transparency

Options for Bid Structure

- Prequalification
- Sole source or competitive bidding
- Technical and financial qualification evaluated together or separately (one envelope or two?)

Prequalification of Bidders

- usually necessary for large or complex projects
- in circumstances in which high cost of preparing detailed bids could discourage competition
  - custom-designed equipment, industrial plant, specialized services, and constracts to be let under turnkey, design and build or management contracting.

Proponent Pre-Qualification Analysis

- Does the proponent have the necessary experience to do the project?
- Does the proponent fulfill the requirements of law?
- Does the proponent fill the requirements necessary to undertake the project?
- Does the proponent have to identify his full team? Is the proponent alone impressive enough to prequalify for the proposal?

Two-Stage Bidding

- first unpriced technical proposals on the basis of a conceptual design or performance specifications are invited
  - subject to technical as well as commercial clarifictaions and adjustments
  - followed by amended bidding documents and submission of final technical proposals
- second, a priced bid

TYPES OF BIDDING SYSTEMS (Based on evaluation criteria)

- Tolls/Tariffs
- Project Cost
- Credit Enhancements/ Financial Incentives
- Time (Length of Cooperation Period)
- Revenue Sharing

BIDDING BASED ON TOLLS/TARIFFS

- Evaluation Criteria:
  - lowest tariff/toll
- Applicability
  - Facilities located in large affluent urban centers
  - Facilities within major international or national gateways
  - Facilities that can secure financing on favorable terms

Bidding Based on Tolls/Tariffs

- Advantages
  - By focusing on user fees, promotes public interest
  - Encourages cost-efficient construction
  - Initial tolls reflect market forces and minimize market distortions
- Disadvantages
  - Proposed user fee may not be acceptable/affordable
  - Use of parametric indexation to increase yearly tolls/tariffs may discourage operating efficiency in long term
  - Sometimes requires credit enhancements that partially ameliorate market risks

BIDDING BASED ON PROJECT COST

- Evaluation Criterion:
  - Highest project cost that sponsor is willing to assume
  - Advantages
  - Can be used
    - » in low population density areas
    - » where tolls/tariffs are regulated and/or
    - » if user demand is not robust
    - » if credit enhancements are not available
- Disadvantages
  - Usually requires substantial government cost sharing
  - Extent of government participation in cost sharing is identified only by bidding
    - » Cost Sharing leads to economic distortions

BIDDING BASED ON CREDIT ENHANCEMENTS/FINANCIAL INCENTIVES

- Evaluation Criterion:
  - Least exposure to government in the form of credit enhancements, financial incentives
- Advantages
  - May minimize credit enhancements/financial incentives government has to provide
  - Applicable if user demand is not robust or questionable or the facility is first of its kind
  - May create less economic distortions
- Disadvantages
  - Difficult to compare alternate bids
  - Winning bidder may find it difficult to raise financing on basis of proposal

BIDDING BASED ON TIME

- Evaluation Criterion:
  - length of cooperation period
- Advantages
  - May result in faster transfer of project to government
- Disadvantages
  - Difficult to finance
  - Mexican experience using this bidding system has not been good
  - Required government support can introduce distortions

BIDDING BASED ON REVENUE SHARING

- Evaluation Criterion
  - Highest present value of project revenues shared with government
- Advantages
  - Maximizes revenue share of government
  - Implementing agency shares in project revenues normally after debt is paid off
  - Government share grows with demand and inflation
- Disadvantages
  - Difficult to monitor and administer

Notification and Advertisement

- Timely notification of bidding opportunities essential
- Advertise opportunity to bid in newspapers and international journals

Elements of Bidding Documents

- performance targets
- model concession contract
- existing regulatory framework
- existing tariff system/adjustment mechanism
- evaluation/award methodology

DRAFT
(for final version,
see French binder)

ANATOMY OF A CONCESSION AGREEMENT

MODULE 6

The Concession Agreement

- Objectives of a concession agreement
- Elements of a concession agreement
- Risk mitigation

What is a Concession Agreement?

- A means for the government (state and local) to delegate to a private concessionaire the right to carry out and manage a public sector services on a long-term basis.
- Right to provide public services via a contract.
- Between a public entity and a private party.
- The private party is given the task of carrying out and managing a project.
- Represents risk for the private party.
- Remuneration by users.

What is a Concession Agreement?

- The concession contract:
  - incorporates reciprocal obligations in order to achieve economic equilibrium.
  - allows for the necessary stability to carry out and manage the long-term investment.

What is a Concession Agreement?

- The concession contract results from the choice of a public entitity who, instead of directly delivering or managing the service, transfers the responsibilities to a private investor.
- This type of contract allows the government to maintain ownership of assets and the investor to have autonomy over management of operations.

Objectives of a Concession Agreement

- Accountability of parties involved
- Operating autonomy
- Incentive system

Better accountability between parties involved

- For the government, conceding is not privatization. It is only quantitative and qualitative control via a contract that defines the specific objectives of the concessionaire.
- The concession allows the operator to participate in a task of public interest by assuring capital investment for a specific length of time. The operator has to adapt to a changing environment and continuously deliver a quality service.
- Government and operator share rights and obligations.

Accountability through Dispute Resolution

- Procedures should be set out in contract to include:
  - points of contact with organization
  - role of a regulatory agency in resolving disputes
  - procedures for legal resolution
    - in legal resolution, should include forum selection (where the dispute to be resolved) and choice of law (which law the forum will use)

Operating Autonomy

- Provide the concessionaire sufficient flexibility in day-to-day management of operations.
  - performance targets and sanctions vs. command and control regulation

Incentives

- Operational incentives achieved via:
  - exclusivity
  - concession term/duration
  - renewal options
  - tariffs

Efficiency Incentives through Bonuses and Penalties

- Bonuses may be added to the agreement to provide incentives for excellent performance on certain dimensions
  - (e.g., timely investment, rapid improvements in service quality, entry into new markets)
- Penalties may be used to deter poor project performance

Elements of a Concession Agreement

- Technical Specifications
- Period of Exclusivity
- Tariff Setting and Rebalancing
- Regulatory Framework
- Term and Renewal Options
- Buy-out Provisions
- Provisions covering risks of developing and operating assets:

Technical Specifications

- Ensures accountability by delineating the obligations of the concessionaire rather than through strict regulatory oversight.
  - e.g., quality levels, meeting demand levels, investment and maintenance requirements
  - may be incorporated directly into concession contract or standardized set of specifications may be used
  - degree of specificity may vary depending on country experience in sector and amount of competition available
- Less detailed specifications have advantages of administrative ease and market sensitivity (e.g., Malaysia port)

Period of Exclusivity

- Provide financial incentives to concessionaire through a monopoly on the provision of a particular service while including appropriate incentives that would otherwise be absent.

Tariff Setting and Rebalancing

- represent the rates charged by concessionaire to end users
- generally negotiated during concession award and incorporated in the contract
- tariff changes may be addressed by specifying an index which tariffs may follow or leaving changes to discretion of a regulatory body

Regulatory Framework

- May be explicitly incorporated into contract or by reference to documents promulgated by a regulatory authority
- Concession contracts can facilitate regulation where regulatory authorities weak or non-existent.

Term and Renewal Options

- May have buy-out or renewal clauses structures to reflect market structures
  - (e.g., 30-year contract with periodic rebids, Argentina electricity)
- Renewal or rebid maintains competitiveness in concession process, while still providing mechanism for investment to be recovered.

Buy-Out Provision

- Purchase of the project by government
- Usually resulting from "political force majeure"
- Payment amount will depend on what triggered the buy-out
  - favorable to sponsor (example: political force majeure)
  - unfavorable to sponsor (example: insurable event)

Provisions Covering Risks of Developing and Operating Assets

- currency risks (inconvertibility, transfer, depreciation)
- expropriation/creeping expropriation
- change of law/regulations
- permits/consents (issuance, renewals, adverse terms and conditions)
- other political force majeure (acts of war, invasion, revolution, insurrection, terrorism, riot, civil commotion or sabotage)
- risks of host country legal system

Mitigating Risks via a Concession Agreement: Types of Risks

- Commercial Risks
  - ***Project Specific:*** development, construction of project, operation and maintenance of assets, finding the market
  - ***Broader Economic Risks:*** interest rate, inflation, currency, energy and raw materials price movements
- Non-Commercial or Policy Risks
  - ***Project Specific:*** expropriation, changes in regulation, failure of government or public to meet contractual obligations
  - ***Political risk:*** change in gov't, civil disturbance

Commercial Risk: Project Specific Risk and Mitigation

Risk	Who Controls	Instrument
Single Supplier	Supplier	"Supply or pay" contract
Market Use	No Party	Guaranteed use levels, exclusivity agreements (e.g., Venezuela CANTV)
Single Purchaser	Purchaser	"Take or pay contract"
Sponsor Commitment	Sponsor	Performance bonds, substantive equity commitment

Commercial Risk: Economic Environment and Mitigation

Risk	Who Controls	Instrument
Currency/interest rate risk	Partly gov't	Currency hedging; WB convertibility guarantee; project contingenzy funds to cover ER risk (e.g. Mexico's Toluca Road)
Inflation	Partly gov't	Tariff linked to inflation index; buying futures contracts on raw materials

Non-Commercial Risk: Project Specific Risk and Mitigation

Risk	Who Controls	Instrument
Regulatory	Host Gov't	A strong regulatory framework in the concession agreement; an established system of legal recourse
Expropriation	Host Gov't	Expropriation insurance (e.g., OPIC); include a broad-based team of domestic and international investors
Obligation of Concessionaire	Concessionaire	Performance bond (e.g., to ensure non-commercial covenants met)

Non-Commercial Risk: Non-Project Specific Risk and Mitigation

Risk	Who Controls	Instrument
Country Risk	Host Gov't	Limits to country exposure; gov't and World Bank guarantees of ER convertibility
War	Host Gov't	Insurance; buy-out clauses
Force majeure	No Party	Insurance against act of God (e.g., fire, earthquake)

CONTRAT DE CONCESSION
DE SERVICE PUBLIC

ENTRE LES SOUSSIGNES :

- la commune (le district, le syndicat) de .....,
représentée par .....,
dûment habilité à cet effet par une délibération du .....,
en date du .....,
devenue exécutoire le.....,

ci-après dénommé le concédant

D'UNE PART
ET

-la société..... (forme juridique de la société),
au capital social de .....,
dont le siège social est ..... immatriculée au registre du commerce et des sociétés de
.....,

IL A ETE CONVENU ET ARRETE CE QUI SUIT :

Article 1 - Objet

La présente convention a pour objet la concession par le concédant au concessionnaire du service public de gestion et de distribution de l'eau potable sur le territoire de la commune de .....

Article 2 - Définition du contrat

2.1. Le concessionnaire est chargé de :

- concevoir,
- construire,
- réhabiliter,
- rénover,
- agrandir,
- entretenir le réseau urbain de distribution d'eau potable.

et de l'exploiter à ses risques et périls, conformément aux dispositions du présent contrat.

2.2. Le concessionnaire est autorisé à percevoir auprès des usagers un prix fixé dans les conditions ci-après stipulées, destiné à couvrir les charges d'investissement et d'exploitation qu'il supporte.

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2.3. Le concédant conserve le contrôle du service et doit obtenir du concessionnaire tous renseignements nécessaires à l'exercice de ses droits et obligations.

2.4. Le concessionnaire est responsable des travaux et ouvrages qu'il entreprend et de l'exploitation du service qu'il assure, ainsi que de toutes les conséquences dommageables qui pourraient en résulter, conformément aux dispositions du présent contrat.

Article 3 - Durée

La présente convention est conclue pour une durée de ..... à compter du .....

Elle ne peut être reconduite tacitement.

Elle peut néanmoins être prolongée :

a) pour une durée maximale d'un an pour un motif d'intérêt général,

b) lorsque le concessionnaire a été chargé de réaliser, pour la bonne exécution du service ou pour étendre son périmètre d'intervention, par le concédant, des investissements matériels non prévus au contrat initial et qui ne pourraient être amortis pendant la durée initialement prévue de la présente convention que par une augmentation des tarifs manifestement excessive.

I. Mise à disposition

A. Périmètre

Article 4 - Périmètre du service

4.1. Le service de distribution d'eau potable est concédé à l'intérieur du périmètre fixé en annexe .....

4.2. Le concédant est habilité, lorsque des considérations économiques ou techniques, ou lorsque la préservation de l'intérêt général le justifient, à modifier le périmètre de la présente concession.

4.3. Toute modification de ce type ouvre droit à une renégociation des conditions financières du présent contrat, par le biais d'un avenant, conformément à l'article 34 de la présente convention.

Article 5 - Terrains

5.1. Les terrains d'assiette de la concession tels que décrits en annexe....., sont mis à la disposition du concessionnaire pendant toute la durée de la concession.

5.2. La remise des terrains donne lieu à l'établissement d'un procès verbal, situé en annexe ....., auquel sont joints les états descriptifs et tous les plans nécessaires pour définir les limites et la consistance de la

concession.

A compter de l'établissement de ce procès-verbal, le concessionnaire est redevable, quel qu'en soit le redevable légal, de l'ensemble des impôts, taxes et redevances de toute nature y afférent.

B - Ouvrages existants

Article 6 - Ouvrages existants

6.1. L'ensemble des ouvrages et biens d'exploitation dont la liste figure en annexe..... est mis à la disposition du concessionnaire.

6.2. Un inventaire des ouvrages et biens d'exploitation fixés au premier alinéa du présent article est établi contradictoirement au plus tard ..... après la signature de la présente convention.

6.3. Cet inventaire précise notamment la situation juridique des biens et leur état.

Article 7 - Matériels nécessaires au fonctionnement du service

7.1. Le concessionnaire rachète au concédant, dès l'entrée en vigueur de la présente convention, les matériels nécessaires au fonctionnement du service dont la liste figure en annexe .....

7.2. A défaut d'accord amiable, ces matériels sont rachetés à dire d'expert. Le concessionnaire versera le montant du décompte au plus tard ..... après approbation du décompte par le concédant.

II. Réalisation de la concession

A. Ouvrages

Article 8 - Description des ouvrages

8.1. Les ouvrages à réaliser sont :

- La réhabilitation d'un centre de gestion des eaux usées conformément aux spécifications fournies à l'annexe .....

- L'extension du réseau de distribution dans les conditions visées à l'annexe .....

8.2. L'ensemble de ces ouvrages doit être réalisé en conformité avec l'annexe ..... qui contient un descriptif, un ensemble de plans et d'esquisses, et qui sert de cadre dans lequel avant-projets et projets d'exécution sont établis.

Article 9 - Financement des ouvrages

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9.1. Le concessionnaire assure le financement des dépenses occasionnées par la réalisation des ouvrages.

9.2. Le coût global est évalué par le concessionnaire à ....., en valeur du .....

9.3. La part de ces travaux dont le concessionnaire n'assure pas la maîtrise d'ouvrage est de .....

9.4. Au cas où des emprunts seraient contractés, ils devront être totalement amortis au terme de la présente convention.

9.5. Un plan de financement établi par le concessionnaire est joint à la présente convention en annexe ..... Il fait apparaître en particulier le montant de chaque annuité financière ainsi que le montant et les modalités de la participation de la collectivité telle que décrite à l'article 10 alinéa 2 de la présente convention.

Article 10 - Financement - participation du concédant

10.1 Le concédant garantit les emprunts souscrits par le concessionnaire dans les conditions suivantes mentionnées en annexe ..... :

10.2. Participation financière

Le concédant participe au financement des ouvrages à hauteur de .....

Article 11 - Approbation des plans et documents techniques

11.1. Le concessionnaire est responsable de l'établissement des avant-projets en conformité avec le planning joint en annexe .....

11.2. Le concessionnaire soumet au concédant pour approbation ses avant-projets avant tout commencement de la réalisation des travaux.

B - Réalisation des Ouvrages

Article 12 - Modalités d'exécution des travaux

12.1 Les travaux doivent être exécutés conformément aux projets approuvés et dans le respect de toutes les observations et directives données par le concédant ou l'autorité chargée du contrôle des travaux pour le compte du concédant, désignée dans un délai d'un mois à compter de la signature de la présente convention.

12.2. L'organisation des chantiers doit permettre un contrôle et une surveillance dans des conditions et selon une fréquence décidée par le concédant ou l'autorité qu'il a désignée.

12.3. L'approbation par le concédant ou l'autorité qu'il a désignée de tout ou partie des travaux ne limite

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en rien la responsabilité exclusive, pleine ou entière du concessionnaire.

12.4. En particulier, toutes vérifications et essais nécessaires doivent être réalisés par le concessionnaire sous sa seule responsabilité, et il doit, à ses frais, recourir en temps utile, à tous les organismes, bureaux de contrôle et de certification dont les qualités et les contours de la mission doivent avoir préalablement été approuvés par le concédant ou l'autorité qu'il a désignée.

Article 13 - Sous-traitance des travaux

13.1. Le concessionnaire doit faire réaliser les travaux par les entreprises compétentes et préalablement agréées par le concédant.

13.2. L'agrément du concédant porte, en particulier, sur les capacités financières et techniques des entreprises ainsi que sur l'adéquation des clauses et conditions principales des contrats conclus entre le concessionnaire et ces entreprises, et les termes de la présente convention.

13.3. Cet agrément du concédant ne limite en rien la responsabilité du concessionnaire qui demeure seul responsable envers le concédant de l'ensemble des obligations résultant de la présente convention.

13.4. Le concessionnaire est tenu personnellement responsable de tout le contentieux qui pourrait survenir dans le cadre de cette sous-traitance.

13.5. Le sous-traitant ne peut lui-même sous-traiter sans l'accord préalable, exprès et écrit du concédant.

Article 14 - Délai

14.1. Le concessionnaire est tenu de respecter le planning contractuel fixé en annexe .....

Ce planning tient compte des aléas administratifs et techniques raisonnablement prévisibles.

14.2. En cas de non-respect de la date de commencement des travaux ou d'une des dates d'échéance fixées par le concédant, après une mise en demeure restée infructueuse dans un délai de ..... jours calendaires à compter de la délivrance de la mise en demeure par lettre recommandée avec accusé de réception, le concédant a le droit de résilier le présent contrat aux torts et griefs du concessionnaire, dans les conditions prévues à l'article 50 du présent contrat.

14.3. Le concessionnaire s'engage à mettre en service l'ouvrage :

- dans un délai de ..... à compter du début des travaux.

Article 15 - Imprévus, désordres, troubles

15.1 Le concessionnaire ne peut élever contre le concédant aucune réclamation à l'occasion de l'exécution

de travaux afférents à des découvertes, des imprévus géologiques ou autres ainsi qu'à toutes sujétions de quelque nature que ce soit, et notamment liées à l'environnement.

15.2. Le concessionnaire ne peut élever aucune réclamation envers le concédant à raison des désordres ou travaux de toute nature afférents aux voies et services publics se situant aux alentours de la concession, ou susceptibles d'affecter son fonctionnement. Il en va de même pour les troubles de toute nature liés à des mesures temporaires d'ordre et de police.

Article 16 - Indemnisation des tiers

16.1. Le concessionnaire assume seul la responsabilité tant envers le concédant qu'envers les tiers, sauf recours de sa part contre qui de droit, à l'exception du concédant, de tous les dommages qui peuvent être causés par la suite de l'étude et de la réalisation, ou des modifications des ouvrages.

16.2. Les indemnités et indemnisations éventuelles sont à sa charge exclusive.

Article 17 - Réception des travaux

17.1. Immédiatement après l'achèvement des travaux et avant tout prononcé de réception des travaux entre le concessionnaire et les entreprises chargées de la réalisation des travaux, le concessionnaire réalise un état des lieux contradictoirement avec le concédant.

17.2. Dans le cas où le concédant estime que les conditions du prononcé de la réception des travaux entre le concessionnaire et les entreprises ne sont pas réunies, le concessionnaires doit refuser la réception.

17.3. Après réalisation des travaux nécessaires, le concédant et le concessionnaire procèdent à un nouvel état des lieux.

Article 18 - Acceptation de l'ouvrage

18.1. L'achèvement de l'ouvrage fait l'objet d'un procès-verbal d'acceptation des travaux par le concédant et d'un état des lieux contradictoirement effectué par le concédant et le concessionnaire.

18.2 Préalablement à ces opérations, le concessionnaire fournit au concédant l'ensemble des documents de récolement nécessaires à la bonne connaissance des ouvrages.

Article 19 - Ouvrages non prévus

19.1. Le concédant, dans l'intérêt public, dispose à tout moment du droit d'ordonner la réalisation d'ouvrages annexes ou complémentaires, ainsi que toutes modifications aux ouvrages projetés, en cours ou existants, afin d'assurer le meilleur fonctionnement des installations concédées dans le respect de la réglementation en vigueur.

19.1.2. Si ces obligation sont de nature à bouleverser l'économie du contrat, les deux parties se rapprochent afin de prendre toute mesure utile, notamment en ce qui concerne la durée du contrat et ses conditions financières.

19.1.3. En cas de désaccord, les dispositions de l'article 48 relatif au règlement amiable des litiges s'appliquent.

III - Conditions d'exploitation

Article 20 - Principes généraux

20.1. Dans le cadre du présent contrat, le concessionnaire s'engage à développer une politique d'exploitation du service concédé conforme à sa vocation définie à l'article 2 du présent contrat.

20.2. L'exploitation du service se fait en conformité avec le programme fixé contractuellement par les parties en annexe .....,

20.3. Le concédant dispose à tout moment du droit d'imposer au concessionnaire de nouvelles obligations ou restrictions de service au titre de la concession et de modifier les obligations qui pèsent sur le concessionnaire afin d'assurer le meilleur service.

20.4. Si ces obligations sont de nature à bouleverser l'économie du contrat, les parties se rapprochent afin de prendre toutes mesures nécessaires, notamment financières.

20.5. En cas de désaccord, les dispositions de l'article 48 relatif au règlement amiable des litiges s'appliquent.

Article 26 - Obligations du service (1)

21.1. Ouverture

21.2. Surveillance

21.3. Prescriptions techniques - normes d'exploitation

21.4. Politique de communication

21.5. Politique de tarification.

Article 22 - Continuité du service

22.1. Le concessionnaire est tenu d'assurer la continuité du service de distribution d'eau potable qui lui est confié.

22.2. Tout arrêt technique, ou pour quelque cause que ce soit, supérieur à ....., devra être prévu en accord avec le concédant.

22.3. Le concédant devra être informé immédiatement et par écrit de tout arrêt, quelle qu'en soit la cause, supérieur à ....., qui n'aurait pu être prévu.

22.4. En cas d'arrêt du service, le concessionnaire pourra voir sa responsabilité recherchée dans les conditions prévues à l'article 43 de la présente convention, sauf dans les hypothèses suivantes :

- destruction totale des ouvrages,

- arrêt du service dû à un manquement du délégant à l'une quelconque des obligations de faire ou de ne pas faire lui incombant au titre de la présente convention et présentant pour le concessionnaire un caractère de force majeure,

- événement extérieur, indépendant de la volonté du concessionnaire, imprévisible et qui rend impossible la poursuite de l'exécution du contrat.

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(1) à préciser selon la nature de la concession

Article 23 - Règlement

23.1. Le concessionnaire établit le projet de règlement intérieur qui fixe les principales dispositions relatives au fonctionnement du service. Il est destiné à assurer un meilleur service aux usagers.

23.2. Le règlement intérieur est soumis à l'approbation du concédant au moins ..... jours calendaires avant la mise en service.

23.3. Un règlement du service est remis à chaque abonné au moment de la conclusion de son contrat d'abonnement. Il informe notamment les abonnés de la faculté qui leur est offerte de prendre connaissance de la présente convention.

IV. Entretien

Article 24 - Entretien du matériel et des installations, réparation, réfection

24.1. Tous les ouvrages, équipements, installations et matériels :

- situés dans le périmètre de la concession,
- nécessaires à la bonne marche de l'exploitation sont entretenus en bon état de fonctionnement et réparés par les soins du concessionnaire et à ses frais.

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Article 25 - Travaux de renouvellement

25.1. Les travaux de renouvellement sont à la charge du concessionnaire.

25.2. Ils comprennent notamment :

- .....,
- .....,

25.3. Ces travaux sont réalisés conformément aux dispositions du plan de renouvellement (annuel, quinquennal, ...) établi annuellement par le concessionnaire et approuvé par le concédant. Le premier plan de renouvellement est établi dans un délai de ..... jours calendaires à compter de la signature de la présente convention.

Article 26 - Exécution d'office

26.1. Faute par le concessionnaire de pourvoir à l'entretien des ouvrages et installations du service public, le concédant peut faire procéder aux frais et charges du concessionnaire à l'exécution des travaux nécessaires au fonctionnement du service, après une mise en demeure, réalisée par lettre recommandée avec accusé de réception, restée en tout ou partie infructueuse dans un délai de ..... jours calendaires à compter de sa réception par le concessionnaire.

Article 27 - Droits de contrôle du concessionnaire

27.1. Le concessionnaire dispose d'un droit de contrôle sur tous les travaux dont il n'est pas lui-même chargé. Ce droit comporte notamment la communication des projets d'exécution sur lesquels il donne son avis.

27.2. Il aura en outre le droit de suivre l'exécution des travaux et, en conséquence, aura libre accès aux chantiers, sans qu'il puisse en résulter une quelconque modification des obligations et responsabilités du concessionnaire.

27.3. Au cas où il constaterait une malfaçon ou une omission dans l'exécution, susceptible de nuire au bon fonctionnement du service public, il devra le signaler au concédant dans un délai de ..... jours calendaires, par lettre recommandée avec accusé de réception.

V. Régime du personnel

Article 28 - Régime du personnel

28.1. Dans un délai de ..... jours calendaires à compter de la date où le service concédé aura commencé à fonctionner avec un personnel approprié aux besoins, le concessionnaire devra communiquer au concédant la convention collective applicable ainsi que la liste du personnel.

28.2. Le concessionnaire est tenu de reprendre le personnel antérieurement affecté à l'exploitation.

28.3. Tous les trimestres à compter de la date où le service concédé aura commencé à fonctionner, le concessionnaire communique au concédant la liste du personnel affecté à l'exploitation.

VI. Conditions financières

Article 29 - Redevance pour occupation du domaine public

La redevance due à la collectivité par le concessionnaire pour occupation du domaine public du concédant par les ouvrages de la concession est fixée selon la formule située en annexe .....

Elle évolue selon la formule située en annexe .....

Pour la première année, elle est fixée à ..... (en chiffres et en lettres).

Article 30 - Conditions financières d'exploitation

30.1. Une redevance destinée à couvrir les charges supportées par le concédant au titre notamment du contrôle qu'il effectue ou fait effectuer est versée chaque année par le concessionnaire à la date du .....

30.2. Son calcul et son évolution sont définis en annexe .....;

30.3. Pour la première année, elle est fixée à ..... (en chiffres et en lettres).

Article 31 - Rémunération du concessionnaire

La rémunération du concessionnaire est constituée par les ressources tirées de l'exploitation du service concédé et de l'ensemble des ouvrages et installations qui le composent.

Article 32 - Tarifs

32.1. Le concédant et le concessionnaire se sont accordés sur le fait que le prix de revient unitaire de la prestation concédée est de :

- ..... pour la catégorie d'usagers .....,

- ..... pour la catégorie d'usagers .....,

- etc.

32.2. Des ressources correspondant à ces prix de revient permettent au concessionnaire d'assurer l'équilibre financier de la concession dans des conditions normales eu égard aux charges des différents

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postes de prestations fournies.

32.3. Ce prix de revient a été déterminé selon un décompte prévisionnel annexé au présent contrat.

32.4. Les tarifs correspondant aux alinéas précédents sont déterminés comme suit:

- ..... pour la catégorie d'usagers .....,
- ..... pour la catégorie d'usagers .....;
- etc.

Article 33 - Indexation des tarifs

33.1. Les tarifs définis à l'article 32 évolueront chaque année à la date anniversaire de signature de la présente convention selon la formule située en annexe .....

33.2. Le concédant doit veiller, nonobstant l'application de la formule d'indexation, à ce que l'évolution des tarifs permette d'assurer de façon effective l'équilibre de l'exploitation confiée au concessionnaire, en fonction notamment de l'évolution des charges de fonctionnement et du taux de fréquentation du service.

Article 34 - Révision des conditions financières

34.1. L'ensemble des conditions financières est soumis à réexamen sur production par le concessionnaire des justifications nécessaires, notamment dans les cas suivants :

- après ..... années de mise en oeuvre,

- si le concédant décide, pour des questions de politique générale de faire évoluer les tarifs d'une façon différente de celle prévue au présent contrat,

- si le montant des impôts et redevances à la charge du concessionnaire varie de façon significative,

- en cas de modification notable et durable du service,

- dans tout autre cas de nature à bouleverser l'économie générale du contrat.

34.2. A défaut d'accord, cette révision a lieu dans les conditions prévues à l'article 48 du présent contrat relatif au règlement amiable des litiges.

Article 35 - Régime fiscal

35.1. Tous les impôts et taxes, quels qu'ils soient, liés à la réalisation et à l'exploitation du service, établis par l'Etat, le département ou la commune sont à la charge du concessionnaire ; quel qu'en soit le redevable légal.

35.2. Les tarifs définis à l'article 32 sont réputés tenir compte de l'ensemble de ces impôts et taxes en vigueur à l'origine du présent contrat ou lors de l'application des indexations.

Article 36 - Frais d'établissement de la présente convention

Tous les droits éventuels de timbre, d'enregistrement et de publication auxquels donnent lieu la convention et ses suites sont à la charge du concessionnaire.

VII. Comptabilité

Article 37 - Comptes rendus

37.1. Pour permettre la vérification et le contrôle du fonctionnement des conditions financières et techniques de la présente convention, le concessionnaire produit chaque année, dans un délai de ..... à compter de la clôture de l'exercice considéré, un compte rendu technique et un compte rendu financier.

37.2. Pour permettre le contrôle de la qualité du service qui est confié au concessionnaire, celui-ci fournit au concédant un rapport comportant l'ensemble des éléments nécessaires à l'appréciation de cette qualité et de son évolution vis-à-vis des années antérieures et des estimations prévisionnelles de la première année.

Article 38 - Compte rendu technique

38.1. Au titre du compte rendu technique, le concessionnaire doit fournir pour l'année écoulée au moins les indications suivantes :

- l'évolution générale de l'état des matériels et équipements exploités,
- l'évolution de l'activité,
- les modifications éventuelles de l'organisation du service,
- les travaux d'entretien et de renouvellement,
- etc.

38.2. Des justificatifs pourront être demandés par le concédant.

Article 39 - Compte rendu financier

39.1. Un compte prévisionnel d'exploitation pour la durée du contrat, établi par le concessionnaire et approuvé par le concédant, est annexé à la présente convention.

39.2. Un compte d'exploitation retraçant l'ensemble des opérations afférentes à l'exécution de la mission de service public confiée au concédant est établi pour chaque exercice.

39.3. Ce document rappelle les conditions économiques générales de l'année d'exploitation.

39.4. Un compte prévisionnel est établi par le concessionnaire à la fin de chaque exercice pour l'exercice suivant. Il retrace notamment l'ensemble des dépenses et recettes prévisionnelles. Il est soumis à l'approbation du concédant dans le mois qui suit son établissement et au plus tard ..... jours calendaires après le début de l'exercice concerné.

Article 40 - Comptes

40.1. Les activités de la concession font l'objet d'une comptabilité séparée.

40.2. Avant le ..... jour calendaire de chaque année, le concessionnaire remet au concédant dans les formes prescrites par celui-ci, le compte de résultat, le tableau de financement et l'état du fonds spécial de réserve de la concession, établis pour l'exercice précédent.

40.3. Le concessionnaire est tenu de communiquer au concédant les pièces comptables, les registres et tous autres documents justificatifs nécessaires au contrôle de l'exploitation.

40.4. Les sous-traitants autorisés peuvent être soumis aux mêmes obligations sur demande du concédant.

Article 41 - Amortissements et provisions

41.1 Pendant toute la durée de la concession et en application de la législation en vigueur, le concessionnaire constitue chaque année les amortissements et les provisions nécessaires pour mener à bien, en temps utile, les travaux de gros entretien et de remise en état indispensables aux ouvrages concédés et le renouvellement de ces derniers et de tous les équipements et installation, ainsi que la réparation des dommages subis ou causés.

41.2. Elles doivent lui permettre d'assurer dans des conditions normales l'entretien des ouvrages, équipements et installations de telle sorte qu'à l'issue de la concession, ces ouvrages, équipements et installations soient remis au concédant en parfait état de fonctionnement.

Article 42 - Contrôle du concédant

42.1 Le concédant a le droit de contrôler les renseignements donnés par le concessionnaire tant dans les compte-rendus que dans les comptes d'exploitation.

42.2. A cet effet, ses agents accrédités peuvent se faire présenter toutes pièces de comptabilité nécessaires à leur vérification.

42.3. Ils peuvent procéder à toute vérification utile, sur pièce et sur place, pour s'assurer que le service est exploité dans les conditions prévues à la présente convention et que les intérêts contractuels du concédant sont sauvegardés.

VIII. Responsabilité et assurances

Article 43 - Responsabilité - assurances

A. Travaux et ouvrages

Le concessionnaire conserve pendant toute la durée du présent contrat la responsabilité du bon achèvement et de la qualité des ouvrages et travaux réalisés, sans préjudice des recours contre qui de droit.

B. Exploitation

43.1. Le concessionnaire fera son affaire personnelle de tous les risques et litiges pouvant provenir du fait de son exploitation. La responsabilité du concédant ne pourra être recherchée à l'occasion de litiges provenant de la gestion du concessionnaire.

43.2. Le concessionnaire sera seul responsable vis-à-vis des tiers de tous accidents, dégâts, dommages de quelque nature que ce soit, causés par les équipements et matériels mis en place pour l'exploitation du service. Il lui appartient de conclure les assurances qui couvriront ces différents risques et qui correspondent aux risques normaux de ce type d'exploitation.

43.3. En cas de sinistre, l'indemnité versée par la compagnie d'assurance est intégralement affectée à la remise en état de l'ouvrage et de ses équipements.

43.4. Les travaux de remise en état doivent commencer :

- au plus tôt après le sinistre,
- dans un délai de ..... à compter de la date du sinistre.

Ils font l'objet d'une réception dans les conditions prévues à l'article 17 de la présente convention.

Article 44 - Justification des assurances

44.1 Toutes les polices d'assurance devront être communiquées au concédant.

44.2. Le concessionnaire lui adresse chaque police et avenant dans un délai de ..... jours calendaires à compter de leur signature, accompagnés d'une déclaration des compagnies assurant qu'elles ont effectivement disposé d'une ampliation certifiée du texte du présent contrat.

IX - Sanctions

Article 45 - Sanctions pécuniaires

45.1. En cas de retard ou de non-exécution de l'une quelconque des obligations mises à la charge du concessionnaire par la présence convention, et ..... jours calendaires après une mise en demeure restée infructueuse en tout ou partie, le concessionnaire sera redevable sur simple décision du concédant d'une indemnisation forfaitaire égale à ..... F par jour de persistance de l'infraction à compter

du .....[e] jour.

45.2. En cas de manquement à l'obligation d'exécution continue du service public, telle que précisée notamment à l'article 22 de la présente convention, le concessionnaire peut être redevable sur simple décision du concédant, sans formalité, à titre de clause pénale, envers le concédant d'une indemnisation forfaitaire égale à ....., multiplié par le nombre de jours de persistance de l'infraction.

45.3. Les dispositions du présent article ne préjudicient pas de l'application des sanctions coercitives et résolutions ci-après définis.

45.4. Exploitation du service :

En cas de retard dans l'entrée en fonctionnement du service, d'interruption générale ou partielle du service, de non-conformité de l'exploitation aux prescriptions techniques applicables, de non-respect des règles de sécurité, de négligence dans le renouvellement ou l'entretien des équipements et matériels, après une mise en demeure restée infructueuse en tout ou partie pendant ..... jours calendaires, le concessionnaire peut être redevable sur simple décision du concédant d'une indemnité forfaitaire égale à ..... F par jour à compter de .....

45.5. Production des comptes :

En cas de non-production des documents prévus aux articles 37 et suivants de la présente convention, et ..... jours calendaires après une mise en demeure resté infructueuse, une pénalité égale à ..... est appliquée.

Article 46 - Mise en régie provisoire

46.1. En cas de faute grave du concédant, et notamment si la continuité du service n'est pas assurée en toutes circonstances, sauf en cas de force majeure, de destruction totale des ouvrages, de retard imputable au concédant ou de circonstances indépendantes de la volonté du concessionnaire, le concédant peut prendre toutes les mesures nécessaires pour assurer le service par les moyens qu'il juge bon.

46.2. Cette mise en régie provisoire sera précédée d'une mise en demeure restée infructueuse dans un délai de ..... jours calendaires.

46.3. Le concédant peut alors prendre possession des matériels, approvisionnements, etc., et de tout le matériel nécessaire à l'exploitation.

Article 47 - Sanctions résolutoires

47.1 En cas de manquement grave du concessionnaire à l'une quelconque des obligations souscrites dans le cadre de la présente convention, présentant un caractère irréversible ou de manquement grave du concessionnaire à l'une quelconque des obligations souscrites dans le cadre de la présente convention ayant fait l'objet d'une mise en demeure de réparer dans un délai de ..... jours calendaires et restée infructueuse, le concédant, nonobstant la mise en oeuvre de dispositions des articles 50, 51 de la présente

convention, a la faculté de résilier la concession aux torts et griefs du concessionnaire.

47.2. La résiliation de la concession ne fait pas obstacle à l'exercice de toutes actions civiles ou pénales contre le concessionnaire.

47.3. En cas de résiliation au titre du présent article, les suites seront mises par le concédant au compte du concessionnaire.

Article 48 - Réglement amiable des différends

48.1 Si un différend survient entre le concessionnaire et le concédant, le concessionnaire expose dans un mémoire les motifs du différend et toutes les conséquences de nature administrative, technique et/ou financière qui en résultent selon lui. Ce mémoire est transmis par lettre recommandée avec accusé de réception au concédant. Dans tous les cas et nonobstant l'existence de ce différend, le concessionnaire doit exécuter fidèlement les directives émanant du concédant ou relevant de la présente convention.

48.2. Le concédant notifie au concessionnaire sa proposition pour le règlement du différend dans un délai de ..... jours calendaires à compter de la date de réception du mémoire.

48.3. L'absence de proposition de concédant dans ce délai équivaut à un rejet de la demande du concessionnaire.

48.4. Dans le cas où le concessionnaire ne s'estime pas satisfait de la décision du concédant, il doit dans un délai de ..... jours calendaires à compter de cette décision, qu'elle soit implicite ou explicite, saisir du différend une commission de conciliation composée de trois personnes.

48.5. A cet effet, le concessionnaire et le concédant disposent d'un délai de .....jours calendaires pour nommer chacun un conciliateur. A défaut de nomination dans ce délai, le ou les conciliateurs sont nommés par le Président du tribunal territorialement compétent à la requête de la partie la plus diligente. Les deux conciliateurs ainsi nommés désignent d'un commun accord dans un délai de ..... jours calendaires le président de la commission de conciliation. A défaut d'entente dans ce délai, le président de la commission de consiliation est nommé par le Président du tribunal territorialement compétent.

48.6. La commission une fois constituée dispose d'un délai de ..... pour

48.7. Dans le cas où dans un délai de ....., cette proposition ne rencontrerait pas l'assentiment des parties ou dans le cas où, dans ce même délai, la commission de conciliation ne ferait pas de proposition, le différend serait alors soumis au tribunal administratif territorialement compétent à la requête de la partie la plus diligente.

X - Fin de contrat

Article 49 - Intuitu personae

49.1 La présente convention ayant été conclue en considération des qualités et capacités des actionnaires

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majoritaires de la société, toute modification de la répartition du capital de la société ayant pour effet direct ou indirect de faire perdre le contrôle de la société par un ou plusieurs desdits actionnaires est subordonnée à l'accord préalable de la collectivité.

49.2. Toute cession partielle ou totale de la concession, à quelque titre ou sous quelque modalité que ce soit, ne peut intervenir qu'après un accord préalable, exprès et écrit du concédant.

49.3. Le non-respect des dispositions des alinéas 1 et 2 du présent article entraîne de plein droit la résiliation de la présente convention dans les conditions prévues à l'article 47.

Article 50 - Résiliation pour motif d'intérêt général

50.1. Pour la préservation de l'intérêt général,le concédant peut mettre fin de façon anticipée à la présente convention. Il en informe le concessionnaire par lettre recommandée avec accusé de réception. La concession prend fin ..... à compter de la notification de la résiliation dûment motivée.

50.2. Les biens et équipements d'exploitation font l'objet d'un retour immédiat au concédant, dans les conditions de l'article 53, sous réserve des paragraphes 3 et 4 du présent article.

50.3. Toutefois, le concessionnaire pourra obtenir une indemnité compensatrice égale à la valeur des travaux réalisés et non amortie.

50.4. Les matériels et mobiliers mis en place par le concessionnaire et nécessaires à l'exploitation seront rachetés par le concédant, pour un montant évalué à l'amiable ou à défaut d'accord, à dire d'expert.

Article 51 - Rachat

51.1 Le présent contrat peut être résilié à compter de la ..... année contractuelle, dans l'hypothèse où les nécessités d'adaptation du service rendraient le maintien du contrat incompatible avec l'intérêt du service public et ce ..... jours après une notification adressée par lettre recommandée avec accusé de réception au concessionnaire.

51.2. Le concessionnaire peut alors prétendre à une indemnité égale à[1] :

- une somme égale à la valeur des investissements réalisés et financés par le concessionnaire, déduction faite des subventions reçues et affectées à ces investissements et des amortissements et des provisions pour dépréciations déjà réalisés et figurant au bilan.

- une somme égale à :

a) la valeur actualisée des annuité calculées selon la formule mentionnée en annexe .....

b) la moyenne annuelle arithmétique du bénéfice fiscal réalisé au titre des années précédentes, multipliée par le nombre d'années restant à courir.

Cette somme est payable par fraction si la durée du paiement dépasse ..... années.

- une somme couvrant la valeur des objets mobiliers acquis par le concessionnaire et nécessaire pour le fonctionnement du service public et la valeur des approvisionnements en stock ou en cours de livraison, évaluée à l'amiable ou à défaut à dire d'expert.

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1. Le présent article devra être adapté à chaque hypothèse

Article 52 - Domicile

52.1. Pour l'exécution de la présente convention et de ses suites, les parties font élection de domicile à l'adresse indiquée en tête des présentes.

Article 53 - Reprise en fin d'exploitation

53.1. Le concédant, à l'expiration de la durée normale de la concession, entre immédiatement en possession des biens de retour - ouvrages, équipement, installation et matériels qui font partie de la concession telle qu'elle est définie aux articles 2 et 3 de la présente convention.

53.2. Le concédant a la faculté de racheter au concessionnaire les biens nécessaires à l'exploitation, financés par le concessionnaire mais ne faisant pas partie de la concession. La valeur de ces biens sera fixée à l'amiable ou, à défaut, à dire d'expert, et payée au concessionnaire dans un délai de ..... jours calendaires à compter de l'expiration de la présente convention.

53.3. Tous les autres biens, non visés aux alinéas précédents, qui ne sont pas strictement nécessaires à l'exploitation, pourront être rachetés par le concédant après accord des parties.

La valeur des biens sera fixée à l'amiable ou, à défaut, à dire d'expert, et payée au concessionnaire dans un délai de ..... jours calendaires à compter de l'expiration de la présente convention.

Article 54 - Continuité du service en fin de contrat

Pendant les ..... avant l'expiration de la présente convention, le concédant a la faculté de prendre toutes les mesures utiles pour assurer la continuité du service en fin de contrat, en réduisant au maximum la gêne ainsi occasionnée pour le concessionnaire.

Fait à .....
Le .....
En ..... exemplaires

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REGULATION

MODULE 7

Price Waterhouse LLP 1

Why Regulation and Competition Go Hand-in-Hand with PPI

- Defines operating rules
- Provides government control without financial obligations
- Provides investors with assurances that prices can be adjusted
- Defines tradeoffs between social and commercial objectives.

Price Waterhouse LLP 2

Relationship Between Regulations and Competition

- Regulation where necessary, competition where possible and desireable
- Regulation as a surrogate for competition
- Regulation for competition

Relationship Between Regulation and Compeititon

- Regulation benefits from competition
  - cost-effective pricing
  - incentives to reduce costs
  - stranded-asset effect eliminated
- Competition is affected by regulation
  - pro-active regulatory strategies
  - restructuring
  - role in changing rules of game

Competition Issues

- incumbency advantages
- competitive model in background

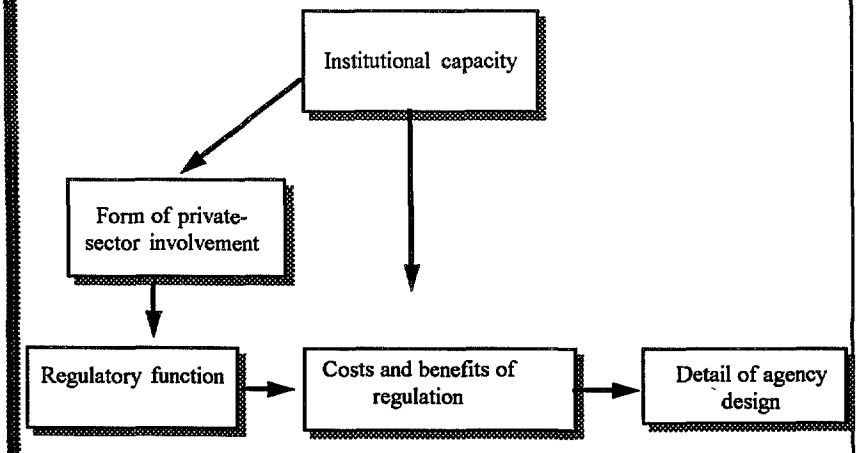
Relationship With Privatization

- long-term value dependent on regulation form
- regulatory credibility maximizes sale value
- desire for large sale proceeds can lead to inefficient regulatory outcome

Regulatory Institutions and Commitment

- transparent implementation policy
  - independent vs. government ministry
- regulatory provides "credible commitment" to both private sector and the public

Overview



Costs of Regulation

- direct costs of regulatory body
- company costs
- costs of regulatory failure: gold-plating, inefficiency, barriers to entry

Independence

- pre-specified criteria for appointment
- fixed term of office
- avoidance of conflicts of interest
- clear mandate
- financial independence from government budget

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Accountability and Performance Monitoring

- regulatory mandate - clear goals
- reporting and transparency of decisions
- judicial review
- appointment procedures

→ *trade-off between accountability and efficiency*

Individual Versus Commission

- In favor of individual
  - direct accountability
  - rapid decision-making
  - greater predictability
- In favor of commission
  - avoids personality dominance
  - reduces potential for corruption
  - reduces potential for political interference or regulatory capture
  - range of players brought to bear

Single Sector Versus Multi-Sector

- In favor of single sector
  - sector specific expertise
  - sector-specific institutional structure
  - sequencing of privatization
- In favor of multi-sector
  - economies of scale
  - economies of scope
  - reduced risk of regulatory capture
  - promotes regulatory consistency

Centralization Vs. Decentralization

- In favor of decentralization
  - regulation adapted to meet local conditions
  - brings regulation closer to users, i.e., strengthening responsiveness and accountability
- In favor of centralization
  - ability to deal with inter-regional and international issues
  - economies of scale in regulatory capacity and administration
  - transaction and coordination benefits

Arbitration

- legal mechanisms
- appellate bodies
- international arbitration

Check-list for Institution Design

- What are the institutional endowments of the country?
- How much flexibility can be built into the regulatory mechanism?
- What is the form of private-sector participation and the degree of centralization?
- What attitude is taken to regulatory design issues: tradeoffs regarding individual versus commission; multi-sector or single?
- Detail issues: funding, accountability, appeal mechanisms, stakeholder involvement

STRATEGIES SECTORIELLES POUR PSPI AU MAROC

Module 8

Les analyses sectorielles présentées dans ce module sont tirées de l'étude de la Banque Mondiale, *Royaume du Maroc: Participation du Secteur Privé dans les Infrastructures,* Division du Développement du Secteur Privé, des Finances, et de l'Infrastructure, Département Maghreb et Iran, Bureau Régional Moyen-Orient et Afrique du Nord, Décembre 1995.

Defi stratégic pour le Maroc: faire face aux faiblesses de l'infrastructure

- Renforcer la capacité concurrentielle de l'économie maroccaine
- Rehausser les avantages comparatifs du pays aux yeux des investisseurs étrangers
- Améliorer la couverture et la qualité des services essentiels afin de satisfaire les besoins de la population

L'état de l'infrastructure au Maroc

- Diminution de dépenses de l'Etat en matière d'infrastructure de plus de 3% par an depuis 1991
- Besoin de financement d'entre 7% a 8% pour assurer un scénario de croissance accélerée
- Renouvellement, entretien, et développement insuffisants des grandes infrastructures modernes
- Faible couverture en services municipaux

Bénéfices de l'introduction de la participation privée dans l'infrastructure

- Apport des financements nécessaires (plus de DH 250 milliard pour la période 1995-2005)
- Limiter les subventions (alléger les charges sur les budgets nationaux et municipaux)
- Choix de meilleurs technologies
- Gains de productivité d'exploitation
- Privilégier la concurrence et l'ouverture intersectorielle

Stratégies sectorielles pour PSPI

1. Le Secteur Transport
   - Autoroutes
   - Aéroports
   - Secteur ferroviaire
   - Secteur portuaire

2. Les Services Municipaux
   - Distribution de l'eau et l'assainissement
   - Distribution de l'électricité
   - Transports urbains

Autoroutes - dispositif

- Les routes interurbaines transportent plus de 90% du trafic passagers intervilles, et 75% du trafic du marchandises hors phosphates
- Densité routière (1162 km routes revêtues par million d'habitants) inférieure à d'autres pays du Maghreb
- Gestion des autoroutes confiée à la Société des Autoroutes du Maroc (ADM)
- Financement assuré à 70% par les bailleurs de fonds, 20% par l'Etat, et 10% par ADM par moyen de péages (100 km d'autoroute entre Casablanca et Kenitra)

Autoroutes - options pour PSPI

- Séparer les reponsabilités réglementaires, à dévoluer à l'administration routière, des responsabilités d'exploitation
- ADM pourrait demeurer l'opérateur unique, avec ouverture de son capital au privé
- Mise en concession aux opérateurs privés de certains tronçons rentables, par exemple: Casablanca-Settat

Autoroutes - formules envisageables pour PSPI

- Liberaliser le marché, introduisant la concurrence entre ADM et un opérateur privé
- Développer une compétence de régulation autonome
- Faible élasticité du trafic permet une stratégie de relèvement progressif des tarifs vers un tarif optimum en terme de revenues
- Reduire les subventions au secteur créant, par exemple, un fonds autoroutier, capitalisé par les droits de concession

Aéroports - dispositif

- Aéroports commerciaux sont placés sous le contrôle de l'Office National des Aéroports (ONDA), qui detient le monopole sur leur développement, exploitation, et administration
- La position financière de l'ONDA est faible: déficitaire en 1994 de DH 124,6 millions, pour un chiffre d'affaires total de DH 646,6 millions
- L'intervention actuelle du secteur privé dans la prestation des services aéroportuaires est minimale

Aéroports - options pour PSPI

- Sous-traiter certaines fonctions sécondaires
- Créer une société d'exploitation d'un ou de plusieurs aéroports, invitant des entreprises privés d'acquérir une participation au capital
- Concéder la gestion de l'aéroport entier, ou d'un terminal, à un opérateur privé dans le cadre d'un contrat de concession

Aéroports - formules envisageables pour PSPI

- Rédefinir le rôle de l'ONDA vers les fonctions de contrôle et de coordination
- Régionaliser la gestion des aéroports, laissant à chaque aéroport l'autonomie de gestion journalière
- Autoriser la plus grande concurrence entre aéroports, évoluant vers l'octroi de concessions de service
- Confier au privé, par contrat de sous-traitance, l'entretien des bâtiments, la gestion des parkings, les transports, la restauration, etc.

Secteur ferroviaire - dispositif

- Réseau ferroviaire d'environ 1900 km
- Le sous-secteur est géré par un établissement public à caractère industriel et commercial, l'ONCF
- Concurrence accrue de la part des transports routiers sur le marché des transports de marchandises et de voyagers
- Gestion financière dèséquilibrée de l'ONCF: déficit cummulé (1980-1994) dépassant DH 4 milliards
- Besoin de financement pour renouveller et moderniser les infrastructures

Secteur ferroviaire - options pour PSPI

- Transfer au secteur privé des activités de support
- Association avec le secteur privé pour l'exploitation des services spécialisés
- Séparer la gestion des infrastructures-- assurée par une entreprise publique-- de la gestion des services de transport, assurée par des entreprises privés

Secteur ferroviaire - formules envisageables pour PSPI

- L'Etat conserve la propriété des infrastructures
- Mise en concession de l'activité ferroviaire-- exploitée par le concessionnaire à titre d'activité commerciale
- Sous-traitance de l'entretien des infrastructures et du matériel
- Transfer au privé des activités non-ferroviaires (telle l'activité hotelière)

Secteur portuaire - dispositif

- 95% du commerce extérieur du Maroc transite par les ports
- Gestion et exploition du domaine portuaire exercées sous un monopole public confié à l'ODEP
- Productivité portuaire largement inférieure à la plupart des grands ports
- Prestation des services renchérie à au moins 25% grâce à la politique tarifaire monopolistique
- Manque de sensibilité aux les besoins d'usagers

Secteur portuaire - options pour PSPI

- Recentrage du rôle de l'ODEP sur les missions de puissance publique et les investissements ayant nature de bien collectif
- Contrat de gestion des équipements signé avec un opérateur privé
- Location des magasins et des terres-pleins aux usagers des ports
- Concession de travail et d'exploitation octroyée à une entreprise privée (locale ou internationale)

Secteur portuaire -formules envisageables pour PSPI

- Démembrer l'intégration horizontale et verticale de l'ODEP
- Démonopoliser la manutention, le gardiennage, les terminaux spécialisés, etc.
- Céder certains services marchands, par vente ou location d'équipements, organisée par appels d'offres
- Préparer des contrats de concession pour les investissements

Distribution de l'eau et l'assainissement - dispositif

- Responsibilité pour la distribution de l'eau et l'assainisement dans les grands centres confiée aux régies publiques
- ONEP reste le seul producteur d'eau
- En fonction de la politique tarifaire, les régies ne couvrent pas leurs coûts marginaux
- Nouveaux investissements requis pour réhabiliter et étendre les reseaux actuels-- plus de 500 millions de dollars pour le secteur de l'eau, et 1,4 milliard de dollars pour l'assainissement

Distribution de l'eau et l'assainissement - dispositif (suite)

- 56% de la population a l'accès à l'eau salubre (1990-91), à la traîne d'autre pays à revenu moyen: la Tunisie (70%), la Malaysie (78%), le Chile (86%), etc.
- Les taux de pertes d'eau, aujourd'hui à l'ordre de 35%, performance inférieure à la moyenne internationale
- Services d'assainissement très insuffisants dans nombreux quartiers urbains, avec des impacts négatifs sur la santé et le développement touristique

Distribution de l'eau et l'assainissement - options pour PSPI

- Transformation des régies en sociétés autonomes
- Sous-traitance des services annexes à des entrepreneurs indépendants
- Contrats d'affermage, confiant l'exploitation et l'entretien du système à des entités privées
- Contrats de concession à longue durée, confiant au concessionaire les fonctions d'exploitation du système, ainsi que l'investissement et le développement du réseau

Distribution de l'eau et l'assainissement - formules envisageables pour PSPI

- Démonopoliser le secteur en laissant à l'ONEP la fonction de production d'eau
- Sous-traiter d'avantage pour l'exercise des fonctions annexes: grosses réparations, entretien, relevé des compteurs, etc.
- Négocier des concessions en matière de distribution d'eau et d'assainissement
- Liquidation des régies là oû les opérateurs privés sont sélectionnés
- Desserte des zones rurales par des entrepreneurs privés

Distribution de l'électricité - dispositif

- 10 régies assurent la distribution d'électricité, alimentée en électricité par l'Office National de l'Electricité (ONE)
- Taux d'électrification global (55%) inférieur à d'autre pays à revenu moyen
- Production électrique á été ouverte en 1994 à l'intervention des producteurs indépendants
- Investissements requis jusqu'à l'an 2000 pourrait atteindre près de $US 2,5 milliards

Distribution de l'électricité - options pour PSPI

- Transformer les régies en sociétés autonomes
- Libéraliser la distribution électrique, permettant l'introduction de la concurrence entre opérateurs privés et, eventuellement, entre ces opérateurs privés et l'ancien monopole public
- Etablir des contrats de concession de la distribution d'électricité (e.g., l'expérience en cours à Casablanca)
- Mise en place d'un cadre réglementaire: niveau des tarifs, normes à respecter, etc.

Distribution de l'électricité - formules envisageables pour PSPI

- Mise en place d'un organe réglementaire autonome doté de pouvoirs décisionnels
- Fixer les tarifs à un niveau afin d'assurer la rentabilité des investissements
- Démembrer ou filialiser l'ONE en plusieurs sociétés distinctes-- le capital souscrit en partie par des partenaires privés
- Auto ou co-producteurs devraient être autorisés à alimenter directement les régies et certains gros consommateurs

Transports urbains - dispositif

- Les compagnies d'autobus municipal (les régies) assurent le service public de base
- L'ouverture au privé en 1984: aujourd'hui 50 concessions privés couvrent environ 80% des besoins de service de transports urbains (offrant les services de première classe)
- A cause de subventions de l'Etat insuffisantes, et la faillite des municipalitiés, le parc des autobus publics n'a pas pu être renouvelé et les services publics déteriorent

Transports urbains - options pour PSPI

- Renforcement de la régulation (politique tarifaire, critères de sélection des concessionnaires, etc.)
- Introduire la concurrence dans le transport de masse
- Rationaliser la productivité des régies par la définition des contrat-plans
- Transfer total des services au secteur privé

Transports urbains - formules envisageables pour PSPI

- Développement des organes locaux de régulation (au niveau des collectivités locales)
- Liquidation des régies défaillantes
- Transformation des régies viables en sociétés autonomes
- Permettre aux entreprises privés d'exploiter certains lignes actuellement réserves pour les régies, incorporant une formule pratique de subvention

MEXICO--TOLUCA TOLL ROADS PROJECT

Introduction[1]

In the winter of 1991, three project finance associates at Lehman Brothers International in London prepared an internal business proposal for their meeting the next day with Nancy Tuffnel, Vice President of Lehman's Infrastructure Finance Group[2]. Ms. Tuffnel had been contacted weeks earlier by Grupo Tribasa, the owner-operator of Mexico's Toluca toll road, about the possibility of Lehman raising long-term debt to refinance the Toluca road's short term obligations, as well as the cost of the concession's extension.

Ms. Tuffnel believed that the opportunity to become the first international investment bank to underwrite financing for Mexico's toll roads provided Lehman with a chance to leapfrog competitors already active in Mexico, including: JP Morgan, CS First Boston, and Goldman Sachs. In addition, Ms. Tuffnel believed that because the construction phase of the Toluca project was completed, risks for long-term financing would be mitigated.

Nonetheless, the private toll roads sector in Mexico was burdened by inefficiencies and lower than expected returns. Ms. Tuffnel figured that if the group were to proceed with the underwriting, the environment for a successful issue must first be in place. She wanted to understand better the factors affecting the entire sector's financial and operating environment since the Toluca toll road represented only one of several private toll concessions for Government of Mexico (GoM). Her analysis of the sector's performance to date, as well as the conditions which led to the need to refinance the Toluca toll road, would help her decide whether to proceed with the deal. She began by tracing the evolution of the Toluca road and the sector at large.

Rationale for Private Sector Participation in the Economy

The rapid expansion of the public sector combined with the collapse of oil prices in the early 1980s adversely affected the Mexican economy, and led to dramatic reversal of government policies. With the economy experiencing negative growth rates in 1982 and 1983, government budget deficits grew to as much as 16% of GDP, and the financing of these deficits produced severe inflation. In response,

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[1]This case study was developed by *Price Waterhouse LLP* and is meant to serve as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business scenario. The authors of the case wish to thank the World Bank's PPI Group for obtaining information necessary to write the case. Sources for this case include: World Bank reports; selected issues of Public Works Financing; and discussions with World Bank officials. Further use of the case is prohibited without permission from *Price Waterhouse LLP*.

[2]Names and positions have been fictionalized for the purpose of case writing

President Miguel de la Madrid launched a program to shrink Mexico's public sector by selling or liquidating loss making state owned enterprises. His successor, President Carlos Salinas de Gortari, expanded and accelerated the program.

The Beginnings of Private Sector Participation in Toll Roads

The GoM began to build and operate toll roads in the 1950s. By 1970, Mexico had approximately 1,000 kilometers of public toll roads. As part of a massive public investment program over the next ten years, almost 3,000 kilometers of untolled four-lane divided highways opened to supplement the 1,000 kilometer toll network.

In line with the private sector initiatives in other parts of the economy, the de la Madrid administration granted two experimental road concessions totalling 215 kilometers. This initiative proved to be the beginning of the GoM's extensive toll roads construction and expansion plan to alleviate the public sector's financial burden resulting from increased highway traffic, road maintenance requirements, and foreign debts assumed during the public expansions of the 1970s. Furthermore, road building strengthened both long term economic prospects(through more efficient travel) and short term growth (through stimulation of construction industry).

Upon assuming office in 1989, the Salinas administration built upon the private sector initiatives of the previous administration. Mr. Salinas launched a new program to build 4,000 kilometers of new toll roads and seven new international toll bridges as private concessions before the end of his administration in 1994. Analysts estimated the project's costs at approximately $5 billion. This amount was triple the rate of new highway investment over that of the preceding few years.

The Toluca Toll Road

Completed in 1990, the Toluca toll road is a six-lane, thirteen-mile highway connecting Mexico City with the industrial city of Toluca. In 1989, the Secretariat for Communications and Transport (SCT), the implementation agency for the toll roads concession program, granted Grupo Tribasa a twenty-eight month concession to build and operate the road. However, traffic levels subsequently fell below those initially projected and SCT offered to resell Tribasa an extended concession expiring in 2002. The SCT even agreed to extend the concession beyond 2002 if traffic levels did not meet the levels pre-established in the renewal concession. In 1992, at the end of the first concession, current daily traffic approached little more than 70% of the concession's guaranteed level (19,000/26,000 cars p.d.) or 38% of capacity (19,000/50,000 cars p.d.).[3]

Grupo Tribasa had intended to maintain its role as builder and operator. However, the financial obligations associated with its short-term debt ($105.1 million in construction costs) and the concession

[3] At the time of the concession renewal, the Toluca toll was more than $ .20 per km. The average concession toll rate at the time was $ .17 per km. These rates greatly exceeded those of Mexico's public toll roads ($ .02 per km) and those of the United States ($ .018 per km for the NJ Turnpike).

renewal prompted the company to seek long-term external assistance, this time from an international investment bank.

The following table illustrates Tribasa's intended use of the proceeds for the Toluca Toll Road bond issue:

Uses	Amount (US $ Millions)
Refinance initial loan	105.1
SCT payment for concession extension	102.7
Offshore Contingency Account (ER and convertibility)	18.7
Beginning operating cash	.8
Renewal and Replacement Fund	.3
Fees and expenses for financing	11.9
Net to developers (includes escrow account for cross-subsidies)	73.2
Total Uses	312.7

Source: Hamilton, Rabinovitz & Alschuler, Inc.

Issues Affecting Private Participation in the Toll Roads Sector

Three principal issues seemed to explain both Toluca's need for refinancing and the overall status of the sector:

(i) Cost and Traffic Projections

According to both GoM and the concessionaires, a rushed bidding and bid-evaluation process often produced inaccurate traffic and revenue forecasts. In many cases, engineers had not yet completed road designs when the projects were put out to bid. As a result, local communities often pressured construction companies to make last minute modifications which were not accounted for in the initial business projections. Construction companies also had incentive to pad their construction bills so as to reduce the real equity they contributed. Furthermore, they often expected to be able to renegotiate the

concession terms with SCT in the event of cost overruns.[4] Although they were responsible for the first 15% of the overrun, overruns exceeding 15% were grounds for requesting an extension.

Throughout the sector, toll road use was price elastic. If a parallel untolled road were available, such as Route 15 along the Toluca toll road, most Mexicans opted for the inconvenience of a heavily travelled road rather than pay a toll which often exceeded their daily income. For fifteen projects for which data were obtained, the average ratio of observed to guaranteed traffic was 67%. Trucks also had particularly low traffic figures, largely because of the disproportionately high tolls charged. The average, sector-wide internal rate of return of toll roads projects was 2% (instead of 26% based on original cost and traffic estimates).

(ii) Concession Period

The sector's high tolls mentioned above resulted primarily from the short concession periods awarded. The average duration of the first twenty-two private awards was only eleven years and ten months. The length of proposed concession became the single most important criterion upon which the concession award was based: the shorter the period, the better the chances of award. Once the award was made, GoM used the concession extensions as a trump card, in order to compensate the operator for lower than expected traffic flow or cost over-runs. Though some operators perceived this as a palliative, others believed that the contract extension did not alleviate their working capital or cashflow shortages. Grupo Tribasa remained somewhere in between, hoping to raise long term financing for their renewed Toluca concession as well as other toll road projects. At the time of Toluca's initial financing, the short concession was the only realistic alternative given the reluctance of international investors to bear the risk of a long-term toll concession and the absence of long-term capital in Mexico's financial markets.

(iii) Financial Markets

The availability of long-term financing (domestic and international) frequently did not match the capital investment needs of the toll-road concession. Initially, only short-term loans were available, primarily from nationalized banks which were pressured by the government to assume large risks. For the Toluca road, a consortium of local commercial banks extended loans with a four year maturity. At the end of the first Toluca concession, commercial banks had more than $105 million worth of loans outstanding to Tribasa.

Subsequently, as roads began to develop a reliable traffic base after the start-up and construction phases of the project, a few investment banks sold domestic medium-term securities of the operating company, secured by a claim against toll road revenues. However, this tended to be the exception, and long-term financing remained scarce.

[4]For example, the Tampico bypass and the 162 mile Cuernavaca-Acapulco highway, two major concession projects, exceeded their budgets by 51% and 200%, respectively.

Nevertheless, the Mexican government attempted to attract foreign capital due to the fear that further toll road investments financed with domestic savings might increase domestic interest rates and displace useful private investment. In 1992, it seemed the Salinas administration would consider issuing convertibility and exchange rate guarantees for second stage financing (*i.e.*, long-term after the construction and start-up phases) in order to make debt more attractive to foreign investors. Despite these intentions, foreign investors had hitherto remained apprehensive about the major financial market risk factors in Mexico: currency risk[5], interest rate risk, and market liquidity risk.

Ms. Tuffnel considered other reasons why international financiers had not previously been involved, they included: (i) many commercial banks still suffered the effects non-performing loan portfolios resulting from the debt crisis of the 1980s and (ii) the US market was full of high-yield corporate deals which offered investors an alternative to high-yield Mexican securities at lower risks.

Lehman's Decision

Although the team projected the ratio of revenue to debt at a mere 1.25 (the minimal requirement for a comparable project in the US), Ms. Tuffnel believed that the project was an acceptable risk. Her decision was supported by an independent consultant study, prepared by URS Consultants, which estimated a 3% reduction in traffic for every 10% increase in toll rates. The study also estimated growth in traffic volume between 2.4% and 14% and inflation in tolls between 10% and 13%. When combined, these estimates produced revenue gains of between 15% and 25% annually from 1993 to 2005. The growth and revenue projections by URS were based on two assumptions. The first was that traffic would dramatically increase on the Toluca road as a result of the completion of the Guadalajara-Mexico City toll road in 1995. The second assumption was that inadequate road maintenance on parallel Route 15 would also increase traffic levels on the toll road. However, Ms. Tuffnel was aware that the consultants' estimates might be optimistic given that the historical rate of traffic growth on Route 15 from 1980-89 was only 1.5% a year.

In any case, the competitive advantage presented by becoming the first foreign investor in Mexico's toll roads sector made the deal very appealing. Furthermore, the potential involvement of the International Finance Corporation in the underwriting process might seal the legitimacy of the deal, and help to assuage the fears of other investors. Although it appeared that Lehman's Commitments Committee would support her decision, the challenge remained on how to structure the re-financing of the concession so as to minimize potential risks.

[5]During the time Lehman was considering the refinancing deal, many analysts believed the peso was overvalued and that not enough sectors of the economy were generating dollars.

MEXICO--TOLUCA TOLL ROADS PROJECT

Questions for Discussion

1. List issues/actions that the World Bank might have to taken to assist the Mexican toll roads concessions program.

2. Attack or defend the following statement: Given the existing sectoral environment, the GoM's toll roads concessions program was a sign of "one step forward two steps back".

3. What factors differentiated the concessions program from publicly-sponsored toll roads launched earlier?

4. Discuss other critical elements which Ms. Tuffnel might have examined before making her final decision.

Chicago-Milwaukee Corridor Case Study: Financial Feasibility Assessment for High Speed Rail Transit

Introduction[1]

In June 1992, the Wisconsin Department of Transportation (WDOT) awarded a US$1 million feasibility study project to assess high speed rail passenger (HSR) options in the Chicago-Milwaukee corridor to the Engineers Consortium. The consultant team was responsible for assessing high speed rail passenger options which could significantly relieve automobile travel and congestion, and could contribute to improvements in air quality within the corridor.

The first phase of the study effort involved conducting a preliminary analysis and screening of various route and train technology options that could provide HSR service along the Chicago-Milwaukee corridor. The second phase would consist of revenue and ridership forecasts, further analysis of freight interface and operations conflicts, and detailed estimates of capital and operating costs. These tasks would be supported by environmental, economic and financial analysis and assessments of transportation impacts. A Steering Committee provided oversight for the study, representing various interests which would be involved with or affected by high speed rail service in the corridor.

In April 1996, at the end of the study, Mr. Mark Finch, Chairman of the Study Steering Committee, was reviewing the feasibility reports submitted by the various members of the consultant team. The Committee was most interested in the outcomes of the financial analysis, which assessed the extent to which the private sector could contribute to the project. They were careful in reviewing the ridership and revenue forecast reports and operating and capital cost estimate reports as well. Mr. Finch and the Committee needed to assess not only the assumptions made in each report, but the congruence of those assumptions, before implementation of a new high speed rail system along the Chicago-Milwaukee corridor could take place.

Background on the Chicago-Milwaukee Corridor

Chicago has historically been and continued to be the nation's premier transportation hub. Potential existed for the development of a network of high quality rail passenger services emanating from downtown Chicago to major metropolitan areas in the Midwest such as Detroit, Indianapolis, Milwaukee, St. Louis and Minneapolis-St. Paul. Of these, the Chicago-Milwaukee corridor was the shortest (90 miles long), the most densely populated and the most heavily traveled. The corridor also included the mainlines of two full-service railroads, the major highway link between Chicago and Milwaukee (Interstate 94) and General Mitchell International Airport in Milwaukee (see Exhibit 1: Map).

By 1992, the existing passenger rail service between the two cities operated at maximum speeds of 79 mph for conventional passenger trains, with an approximate one-way travel time between each city of an hour and a half and a one-way fare averaging $20 per trip. Though Amtrak provided daily intercity service between Chicago and Milwaukee, the frequency of service (every 2 hours, as opposed to every hour on the hour) was not conducive to high levels of daily commuting. The service is more convenient for business and

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[1]This case was written by Tina Pham of *Price Waterhouse LLP*. The case is intended to serve as a basis for class discussion, rather than to illustrate either effective or ineffective handling of a particular situation. The names and positions mentioned herein have been fictionalized for teaching purposes. Further use or reproduction of this case is forbidden without permission from *Price Waterhouse LLP* . July 1996.

discretionary (non-commuter) travelers. Highway travel is the most competitive alternative to existing rail service.

Intercity travel congestion along the Chicago-Milwaukee corridor had led to increased air pollution, and caused lost productivity due to increased travel time for business as well as other travelers. Further, a burden had been placed on federal, state, and local governments to develop infrastructure to handle the increasingly onerous numbers of automobile and air travelers along the corridor. With HSR, with an average speed of 103 mph, travel time could decrease to as much as 50 minutes one way.

Preliminary Analysis and Screening of Technology and Route Options

The first phase of the study involved the screening of the most promising track route and train technology options. The consultant team analyzed several combinations of passenger-and freight-share route options, contained on three existing railroad tracks within the Chicago-Milwaukee corridor: the Chicago and North Western's Lake Shore Line, the Chicago and North Western's New Line subdivision, and CP Rail System's C&M subdivision (see Exhibit 1 map). The study also considered the establishment of a new track within the existing right-of-way of the CP Rail System's C&M subdivision as a parallel route solely for use of HSR. The track alternatives were evaluated for their potential economic impacts; environmental impacts; interfaces with other transportation systems, including air traffic at General Mitchell International Airport, commuter and public transit; and their ability to interface with the potential high speed rail system centered in Chicago and extending to St. Louis, Minneapolis and Detroit.

The study also evaluated the range of state-of-the-art-steel-wheel-on-steel-rail passenger technologies. Several types of locomotive technology, including diesel-electric, turbine hydraulic and total electric, were evaluated. Characteristics such as speed; acceleration capabilities; turning radius; energy usage; climbing ability; capital, operating and maintenance costs; ability to use existing railroad rights-of-way; and compatibility with tilt and conventional equipment were assessed for each individual technology. The consultant team also considered the ability of each technology to comply with current U.S. standards, regulations and recommended industry practices.

As a result of this phase of the study, the consultant team concluded that the best combination of performance and cost was based on a 110 to 125 mph maximum diesel-electric HSR passenger service along the CP Rail System's C&M Subdivision. The track route choice offered: available right-of-way to accommodate additional tracks for HSR, freight traffic, existing commuter trains; existing end connections directly into downtown passenger terminals in Milwaukee and Chicago; minimal environmental and community impacts; and the ability to interface with General Mitchell International Airport and other HSR routes. Further, the selected track route fell on relatively flat terrain, requiring little new infrastructure other than installation or upgrade of the tracks themselves. A diesel-electric HSR train would require the least initial capital improvements to the system, since an all-electric system would require immediate electrification of the selected track route.

Detailed Financial Analysis

Under the second phase of the study, the financial analysis sought to maximize the portion of the project costs funded by project revenues and minimize the public contribution to the project, while maintaining financial feasibility. Thus overall project funding would be provided through a combination of public sources, private sources, and revenue-backed financing sources. The consultant team developed a financial model that incorporated key characteristics of the proposed HSR system, cost and revenue projections and

financial assumptions, and was used to assess development structures and to produce proforma financial projections.

Use of revenue and ridership forecasts

To perform the revenue and ridership forecasts, the consultants conducted an intercity market analysis (travel markets within Chicago-Milwaukee corridor), an airport access market analysis (airport/mode choice models and ridership and revenue forecasts associated with air travel passengers using the Chicago-Milwaukee rail system to travel to/from General Mitchell International Airport) and a fare sensitivity analysis.[2]

The consultants used a two-stage travel demand modeling and forecasting approach to conduct the forecasting. First, a mode share model was estimated to predict the share of each of the alternative modes available for travel between each origin-destination. This involved conducting traveler revealed and preference surveys.[3] Secondly, a total travel demand model was estimated to predict the travel volume between different origin-destination pairs. This defined the market size to which the mode share portions were applied to produce ridership forecasts by modes. The total travel demand was dependent on two factors: 1) socio-economic characteristics of the population in geographic area; and 2) level of service available to travelers between geographic areas.

Using the base data and models described above ridership and revenue forecasts were prepared for several future conventional and HSR scenarios within the Chicago-Milwaukee corridor. First, a set of forecasts were prepared to test the service and fare changes implemented by Amtrak for conventional rail passenger service. Then, several HSR ridership and revenue forecasts scenarios were prepared, predicting an average ridership growth rate of 1.4 percent per year . Although the service alternatives provided a range of different running times and frequencies, the forecasts for each scenario were based on the same origin-destination fares.

The fare sensitivity/revenue maximization analysis results for intercity HSR travel suggested that with an increase in the Chicago-Milwaukee fare from $15 to $55, the revenue curve was expected to reach its maximum value at a fare higher than $60 and would decrease after that. Further, ridership was expected to decrease with increases in fare. The results of the fare sensitivity analysis for airport access trips suggested that this market was more sensitive to fare increases than the intercity market.

Use of Capital, Operating and Maintenance Cost Estimates

Two sets of capital cost estimates were prepared, one for a 110 mph implementation scenario and one for a 125 mph incremental scenario.

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[2] Travel market data quanitified the size of the existing travel market by trip origin, destination, mode of travel, and trip purpose. This defined the base travel volumes and shares used to develop intercity passengers travel demand models and prepare forecasts of future travel volumes and shares associated with future scenarios. Socio-economic measures used included population, employment and income. Data describing the service characteristics of the available modes included: travel time (minutes), travel cost (dollars), and frequency of service (air, rail, or bus departures per day). Rail fares used in this study were based on existing station-to-station fares.

[3] The revealed preference surveys collected information on existing observed travel choices, while stated preference surveys asked responsondents to indicate a choice of mode under hypothetical future circumstances.

- The implementation scenario analyzed a 110 mph HSR (electric vs. non-electric) service by upgrading the selected corridor's existing "physical plant," i.e., signal system, track structure, bridges, fencing, etc.

- The incremental scenario analyzed a 125 mph HSR (electric vs. non-electric) service by upgrading specific physical features, (i.e., curve elevations), adding new facilities (i.e., additional main track and supporting signals), and rearranging existing facilities (i.e., interlockings, signals and stations) to facilitate operations at higher speed.

- Cost estimates were developed for rolling stock, trackwork, fencing, signaling, grade crossing costs, maintenance facility and acquisition of corridor right-of-way. An additional 15% margin was added to the capital cost to cover construction management and contingencies.

Under the estimates for operating and maintenance cost, major expense categories included operation, equipment maintenance, track and signal maintenance, administration, energy, and other relevant expenses. Further, since one-third of the track route was owned by Metra, a fee would be paid to Metra for the use of its tracks and maintenance facility.

Financial Analysis Scenarios

Taking the various scenarios under the revenue and ridership forecasts and those under the capital cost estimates, the consultants came up with three base case scenarios for the financial analysis:

Scenario	Speed	Service	Special Features
A	110	12 local roundtrips	Highest revenue for 110 mph
B	125	16 local roundtrips	High cost and highest revenue for 125 mph. Includes new airport station.
C	110-125	12-16 local roundtrips	Expansion to an electrified HSR system in 2013. Expansion construction from 2010-2012.

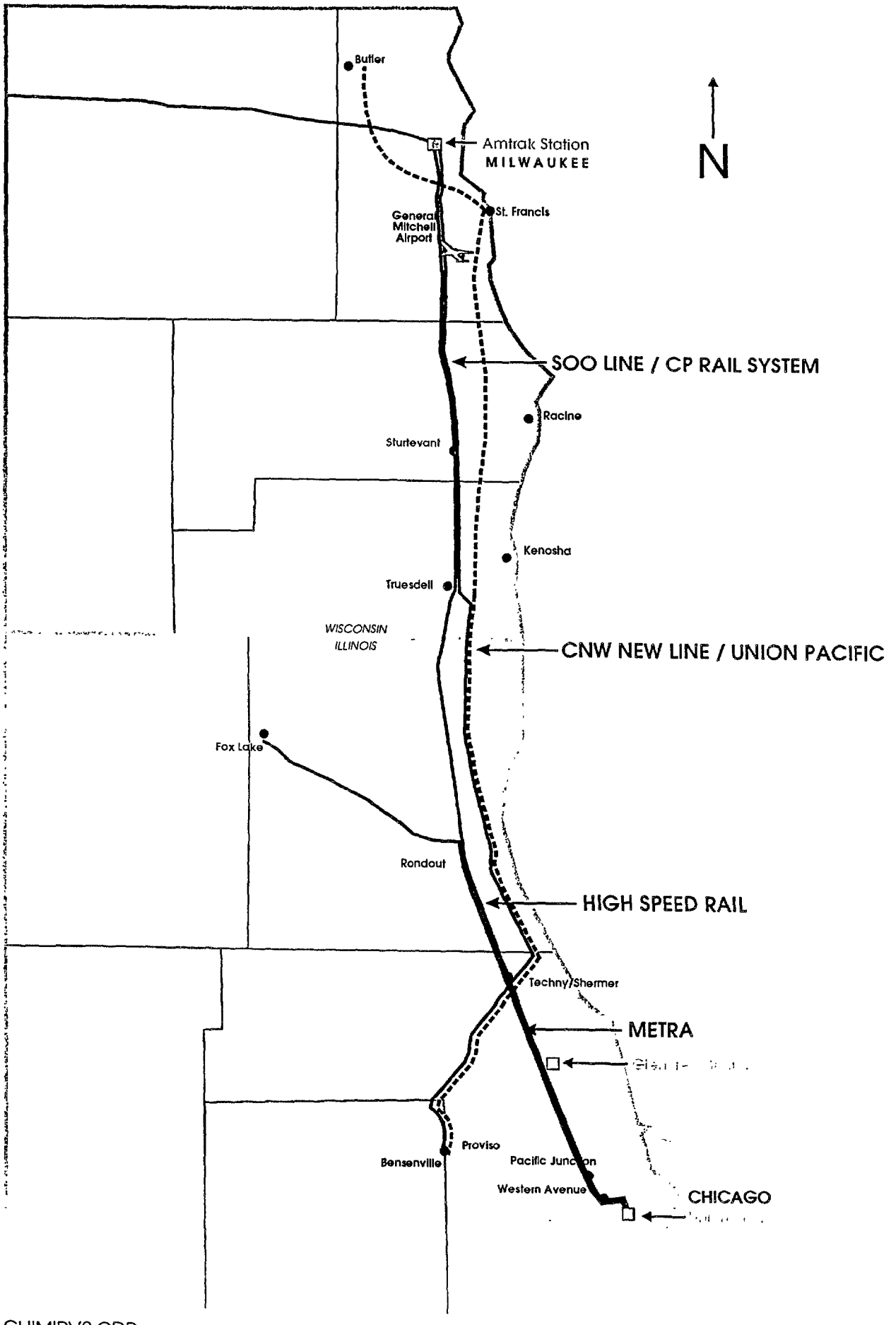
Inputs for each of the service scenarios and development structures include farebox and non-farebox (such as in-vehicle advertising and food concessions)revenue, capital and operating costs, and a set of financial assumptions.

Below is a summary of financial assumptions used throughout the model:

Category	Assumptions
Development Timetable	3 years of construction (2000-2002); Operations start in 2003
Fund Drawdowns	30%, 35%, 35%
Inflation Rate	3%
Lending Rate	3% short-term; 5% long-term
Revenue Bonds (tax exempt) • term • interest rate • minimum coverage ratio • principal deferment • issuance cost	Issued first year 30 years, and 20 years for expansion bonds 8%, and 7.5% for expansion bonds 1.25 5 years 2% of issuance amount
Revenue Bonds (taxable) • term	Issued first year 30 years, and 20 years for expansion bonds

• interest rate • minimum coverage ratio • principal deferment • issuance cost	10.5%, and 10% for expansion bonds 1.25 5 years 2%
Lease (if any) • term • interest rate • minimum coverage ratio • discount	 20 years 8.0% 1.25 5%
• Private Equity (if any): minimum ROR	20%

Mr. Finch and the Committee reviewed the reports and were ready to discuss the implications of the project



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STUDY LINE LOCATIONS

FIGURE 1

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This extract was taken from the World Bank study, *The Kingdom of Morocco: Private Sector Participation in Infrastructure*, Private Sector Development, Finances and Infrastructure Division, Maghreb and Iran Department, Middle East Region and North Africa Bureau, December 1995.

SOMMAIRE ET RECOMMANDATIONS

Participation privée accrue — une nécessité

1. Pour soutenir une croissance de l'ordre de 7 à 8 pour cent par an, le Maroc devra investir de 20 à 30 milliards de Dirham par an dans les grandes infrastructures sur les dix prochaines années. Entre 1988 et 1992, l'investissement public qui leur a été consacré n'a été que de l'ordre de DH 13 milliards par an. Une augmentation substantielle du financement public des infrastructures est exclu dans le contexte actuel des contraintes budgétaires de l'Etat. On estime donc que le déficit de financement pourrait être de l'ordre de DH 15 milliards par an. Le Maroc n'a pas d'autre choix que de recourir, entre autres sources, au financement privé en appui de sa politique d'amélioration et d'expansion des infrastructures essentielles au développement économique du pays. Ce diagnostic a déjà été fait par le Ministre des Finances et d'autres autorités du pays.

2. L'angle budgétaire et financier, bien qu'important, n'est pas le seul à justifier une participation privée accrue. Loin s'en faut. Plus important encore est l'urgente nécessité de fournir aux producteurs marocains, qu'ils appartiennent aux secteurs primaire, secondaire ou tertiaire, les services d'infrastructures dont ils ont besoin pour devenir ou demeurer compétitifs au niveau international. Le gouvernement a tenté au début des années quatre-vingts de remédier à ce problème par la voie de la réforme des entreprises publiques chargées de ces services. Cette voie s'est avérée insuffisante, et n'a pas permis d'atteindre les objectifs fixés. Par ailleurs, dans une grande majorité des secteurs d'infrastructure, cette dernière décennie a vu à travers le monde une réelle révolution dans la manière dont ces services sont structurés, fournis, et réglementés. Le modèle de l'entreprise publique monopolistique ne permet plus de répondre aux défis que l'économie marocaine doit affronter.

Objet de l'étude

3. Un certain consensus existe déjà au Maroc quant au besoin d'impliquer le secteur privé. Cela dit, il n'y a pour le moment ni la stratégie, ni l'engagement politique nécessaires pour que ce diagnostic débouche sur des actions concrètes. Quelles sont les principales options ? Quels sont les obstacles qui se posent à une plus grande participation du secteur privé dans ces secteurs névralgiques ? Quels sont les organismes ou institutions chargés de promouvoir l'initiative privée dans ces secteurs ? Quelle est la base juridique pour une telle intervention ? Quels sont les impératifs économiques qui devraient guider ce processus? Pourquoi les différents projets dont on a tant parlé ces dernères années, que ce soit au niveau de la participation privée dans les secteurs électriques, gazier ou de l'eau mettent-ils tant de temps a voir le jour?

4. Telles sont certaines des questions examinées dans ce rapport par le biais de deux grands secteurs d'infrastructure, à savoir les services municipaux (distribution d'eau et d'électricité, assainissement, déchets solides, transports urbains) et le transport (ferroviaire, maritime, aérien, ainsi que les autoroutes). L'analyse, en particulier les thèmes intersectoriels développés dans le Volume II, s'applique dans une large mesure également aux secteurs d'infrastructure non couverts par cette étude, qu'il s'agisse de télécommunications, de production ou de transport d'électricité, de gaz, d'eau, ou de parcs industriels, par exemple. Le Maroc a besoin d'investissements privés importants dans les secteurs d'infrastructure, or ceux-ci ne semblent pas se concrétiser pour le moment. L'objet de cette étude est de fournir une analyse globale de la situation actuelle et des perspectives en matière de participation

privée, de souligner les principaux points de blocage et de dégager certaines pistes de réflexion et d'action.

Une stratégie d'ensemble

5. De nouvelles stratégies sectorielles doivent être articulées autour d'une nouvelle vision qui privilégierait la concurrence, l'ouverture au secteur privé et la qualité du service. Ces stratégies sectorielles devront également s'intégrer harmonieusement dans et être appuyées par la politique macro-économique de l'Etat (réduction des déficits budgétaires et des ponctions publiques sur les marchés financiers, contrôle de l'inflation, etc.) et par d'autres politiques complémentaires (développement des marchés financiers).

6. L'objectif de promotion de la concurrence est fondamental. La discipline imposée aux entreprises opérant dans des marchés concurrentiels est en effet le plus puissant des stimulants pour améliorer la performance. L'introduction de concurrence est aussi un moyen de faciliter la tâche des organes de réglementation. Là où la concurrence ne peut être introduite directement, comme dans les secteurs sous monopole naturel, il est souvent possible et souhaitable d'octroyer des licences ou contrats de concession par voie d'appels d'offres internationaux réservés à des firmes présélectionnées sur base de leur expérience dans la prestation des services concernés.

7. La mise en place d'un nouveau cadre réglementaire performant, s'appuyant sur des règles claires et des organismes de réglementation réellement indépendants des entreprises qu'ils sont sensés réglementer et d'autres influences externes, est une autre priorité à mettre au point au début du processus d'ouverture de ces secteurs au privé. Ces mécanismes sont essentiels pour donner aux investisseurs les garanties sans lesquelles ils n'investiraient pas et pour protéger les consommateurs.

8. Un accroissement de l'investissement privé (domestique et étranger) est une des conditions pour une croissance économique soutenue. Cela requiert l'amélioration des infrastructures et services publics indispensables à la rentabilisation de ces investissements, et donc l'apport de capitaux et d'expertise privés pour le dévelopement de ces infrastructures et services. En effet, à l'exception peut-être de quelques activités à moindre intensité de capital et d'expertise, telles que le transport urbain et la collecte de déchets, la présence d'investisseurs stratégiques ayant une expérience concrète de gestion de services publics s'imposera presque partout, si l'objectif est l'amélioration du service public et de la compétitivité de l'économie nationale.

9. Il importe également d'associer les partenaires nationaux aussi étroitement que possible à la mise en oeuvre de ces programmes, que ce soit les cadres et employés des secteurs concernés, les entrepreneurs et investisseurs privés marocains (investisseurs institutionnels, industriels ou épargnants), ou les consommateurs et utilisateurs.

10. Dans la mesure où une majorité des entreprises publiques concernées ont des sureffectifs, une réduction de personnel sera souvent nécessaire pour réaliser les gains d'efficience poursuivis. De même, les opérateurs privés devront avoir toute flexibilité pour recruter et licencier leur personnel.

11. Il importera également de revoir l'ensemble du contexte financier dans lequel ces services opèrent, et de développer une politique cohérente de tarification de services publics, de subventions (le cas échéant), de garanties à octroyer par l'Etat (le cas échéant), et de résorption des arriérés de paiement par le secteur public qui sont en grande partie à l'origine des problèmes auxquels ces secteurs sont

confrontés aujourd'hui. Ceci est particulièrement vrai pour les services municipaux qu'il est difficile de confier à une gestion privée sans réforme en profondeur du système de financement des collectivités locales.

12. La préparation et mise en oeuvre de programmes de participation privée, que ce soit par le biais de concessions, de privatisation, ou par d'autres techniques, requiert une expertise qui n'existe pas au sein de l'administration. Un recours à des experts qualifiés et expérimentés s'avère indispensable pour conseiller le gouvernement sur les réformes sectorielles devant précéder ou accompagner l'entrée du secteur privé, notamment pour la refonte du cadre législatif et réglementaire du secteur, la mise en place de mécanismes de régulation, et pour préparer les documents d'appels d'offres et faciliter les négociations avec les soumissionnaires sélectionnés. Cette voie a été suivie par le Royaume Uni, l'Argentine et les Philippines, parmi d'autres pays.

13. Le cadre institutionnel existant au Maroc n'est pas propice au développement d'un partenariat dynamique avec le secteur privé. Non seulement y a-t-il trop de tutelles au Maroc, mais elles interviennent aussi sans consultation ou coordination, et sans stratégie ou objectifs communs. Le cas des services municipaux l'illustre bien. Ainsi, les régies de distribution d'eau et d'électricité sont soumises à la double tutelle de l'Intérieur et des Finances, tout en se trouvant dans un secteur dominé par une entreprise publique (ONEP et ONE) qui est leur fournisseur unique et parfois également leur concurrent, et dont la tutelle est assurée par les Ministères des Travaux publics et de l'Energie. En outre, la politique des prix relève du Ministère de l'Incitation de l'Economie et du CIPEP. Développer des stratégies sectorielles cohérentes dans ces conditions s'est avéré presqu'impossible. Au niveau des transports, le cadre institutionnel existant ne se prête pas mieux au développement de stratégies sectorielles cohérentes. Les entreprises publiques de ces secteurs ont en effet réussi a détourner l'élaboration de stratégies d'entreprise en stratégies sectorielles, toutes à leur avantage. Des monopoles et rentes de situation subsistent. La gestion élargie à la logistique des échanges ne se fait pas; l'intégration intermodale et l'efficience du secteur dans son ensemble en souffrent.

14. Le cadre institutionnel en place, tant au niveau des services municipaux que des services de transport, encourage le statu quo et protège certains intérêts. Afin de rompre ce cercle vicieux, il est recommandé de confier à un organisme spécifique un mandat clair pour mettre en oeuvre ces programmes d'ouverture à la concurrence et de participation privée. En fait, il ne s'agirait là que de poursuivre en l'étendant l'approche que les plus hautes autorités du pays avaient retenue en 1989 pour permettre la réalisation de l'important programme de privatisation inscrit dans la loi 89-39. Le ministère créé à cette occasion a depuis lors acquis l'expérience requise, et serait l'organisme indiqué pour assurer la mise en oeuvre du programme de participation privée dans les secteurs d'infrastructure.

15. Par ailleurs, une réflexion devrait être engagée sur les techniques et instruments de participation privée et sur l'élimination des obstacles existant à l'heure actuelle. En effet, bien que chacun de ces nombreux obstacles soit surmontable, leur accumulation rend la réalisation de tout projet de participation privée plus longue et plus difficile qu'elle ne devrait l'être, et aussi plus risquée. Il en résulte, dans bien des cas, que les investisseurs privés demanderont certaines garanties étatiques pour couvrir ces risques.

16. Un tel réexamen du cadre institutionnel et législatif régissant la participation privée dans les secteurs d'infrastructure pourrait éventuellement déboucher sur une législation globale en la matière. Sans attendre une éventuelle refonte du cadre législatif et institutionnel, la réalisation de quelques projets pilotes de participation privée dans différents secteurs d'infrastructure devrait être une priorité. Cela permettrait au Gouvernement d'asseoir sa crédibilité auprès des investisseurs potentiels, de tester les

différents mécanismes de participation privée dans les infrastructures, de tirer de ces expériences certains enseignements pour les transactions à venir, et de contribuer de la sorte à l'élaboration de ce nouveau cadre institutionnel et réglementaire.

Recommandations spécifiques - Services municipaux

17. Au niveau des services municipaux, la priorité serait de clarifier les responsabilités et le cadre institutionnel et de voir dans quelle mesure certaines fonctions ne pourraient pas être transférées à un organe central chargé de la mise en oeuvre d'un programme de participation privée au niveau municipal (par exemple, le Ministère de la privatisation). La question de l'impécuniosité des communes, et donc de leur financement, est également critique.

18. **Distribution d'eau et d'électricité.** Parmi les différentes formules de participation privée envisagées dans cette étude, la formule de la concession semble la mieux adaptée, en ce qu'elle permettrait d'alléger considérablement le poids de ce secteur sur les finances publiques et d'améliorer la qualité du service public. Des actions sont suggérées à deux niveaux:

a) **Lancement d'une opération pilote:**
- choisir avec les élus locaux concernés une ville pilote pour la mise en oeuvre d'une opération de type concession de distribution d'eau, assainissement et/ou distribution d'électricité;
- constituer une équipe chargée du pilotage de l'opération; et
- recruter des experts pour assister à la préparation des appels d'offres, à l'évaluation des offres, et à la négotiation de contrats avec l'opérateur retenu.

b) **Réforme du cadre institutionnel et réglementaire:**
- réformer les systèmes de financement des collectivités locales;
- promulguer des lois-cadres pour l'eau, l'électricité, et l'environnement (impact sur l'assainissement et les déchets solides);
- examiner et proposer un nouveau mode de supervision et réglementation de ces services (au travers, par exemple, d'une agence nationale de réglementation);
- proposer les réformes nécessaires pour passer du stade du programme pilote au stade d'une ouverture généralisée de ces secteurs à la concurrence et à la participation privée.

19. **Transports urbains.** Le Maroc a acquis une expérience intéressante de transport urbain privé, dont il faudra tirer les leçons. L'organe central suggéré ci-dessus pourrait:
- évaluer l'expérience de concession d'autobus au Maroc au cours de ces dix dernières années;
- préparer des cahiers des charges types;
- assister les communes en matière de négociation et de suivi de ces concessions; et
- proposer des réformes plus globales résultant de ces interventions.

20. **Déchets solides.** Une amélioration considérable est nécessaire dans le domaine des déchets solides, que ce soit pour raisons de salubrité publique ou pour ne pas nuire au tourisme. Deux préalables indispensables à toute action durable sont la réforme des finances publiques locales, et la mise en oeuvre d'une législation effective de l'environnement. Une structuration des services favorisant la concurrence entre opérateurs privés sous contrats est à promouvoir.

Recommandations spécifiques - Transports

21. **Chemins de fer.** L'option suggérée par cette étude est de confier la gestion du secteur ferroviaire à un opérateur privé par voie de concession. L'État resterait toutefois propriétaire des infrastructures de base. Un projet de la Banque mondiale, actuellement en préparation, appuierait cette ouverture au privé et d'autres réformes et mesures d'accompagnement.

22. **Autoroutes.** Il importe avant tout d'examiner la rentabilité économique du programme autoroutier. Dans la mesure où celle-ci serait élevée et justifierait la poursuite de l'extension du réseau, le recours au privé serait souhaitable (moyennant, le cas échéant, octroi de subventions lorsque la rentabilité financière n'est pas suffisante). L'organisation d'un appel d'offres pour la mise en concession de la section Casablanca- Settat permettrait de tester l'intérêt du secteur privé pour ce type d'opération.

23. **Secteur maritime.** L'étude suggère la démonopolisation du secteur portuaire. Nombre d'activités actuellement réservées à l'ODEP sont en fait des services concurrentiels qui devraient être transférés sans exclusivité à des opérateurs privés. D'autres services ont des caractéristiques monopolistiques plus prononcées et pourraient être concédés sur base d'un cahier des charges stipulant clairement les obligations de service public de l'opérateur privé. Le nombre important de ports commerciaux au Maroc permet également d'envisager une certaine concurrence entre ports, ce qui requiert qu'ils appartiennent ou du moins soient gérés par des entités concurrentes. En ce qui concerne, les transports maritimes, l'étude suggère la privatisation ou la liquidation de la COMANAV. Le danger du retour au protectionnisme y est également souligné.

24. **Transport aérien.** La situation de la RAM est préoccupante. La nouvelle direction a lancé un programme de redressement. L'étape de la privatisation paraît inévitable. La RAM a besoin d'un partenaire stratégique international. Plus la décision est reportée, et plus grand est le risque de ne pas trouver acquéreur. Presque toutes les compagnies aériennes aujourd'hui bénéficiaires sont privées. Elles ont dans bien des cas été privatisées au cours des dix dernières années. En ce qui concerne l'ONDA, il dispose d'un outil surdimensionné qu'il importe de rentabiliser davantage. Ici aussi un appel au privé, probablement sous forme de concession, est indiqué en vue de développer les recettes commerciales des aéroports.

Suggestions sur l'ordre des priorités d'intervention

25. Les réformes de gestion qui sont recommandées ont une portée considérable, et il ne faut pas minimiser les difficultés de leur mise en oeuvre. Peut-on mener de front ces réformes dans tous les sous-secteurs couverts par l'étude? Il semble qu'une approche sélective soit plus adaptée au potentiel existant en termes de capacité juridique et règlementaire au plan national, ou de mobilisation tant des forces productives et du capital privé marocains, que de l'intérêt des investisseurs étrangers pour qui l'économie marocaine présente encore beaucoup d'inconnues. L'ordre des priorités devrait découler de l'appréciation de l'importance relative des enjeux de chacune des réformes sous-sectorielles dans le contexte des objectifs de la politique économique du pays. A cet égard, toute action susceptible de favoriser l'accélération de la croissance en renforçant la capacité concurrentielle de l'économie marocaine, en allégeant le budget de l'Etat du poids des subventions d'infrastructure, et en éliminant les nuisances devrait être engagée rapidement. Ces considérations amènent à proposer l'ordre des priorités suivant:

(a) les ports: points de passage obligés de l'essentiel des flux du commerce extérieur, leur rôle est fondamental, et les enjeux d'une plus grande productivité et fluidité du transit portuaire sont considérables;

(b) les chemins de fer: leur contribution à une répartition plus équilibrée des trafics entre modes concurrents et au développement du transport multimodal passe par la commercialisation de la gestion; la réforme est aussi dictée par le souci de réduire la charge financière que l'Etat supporte dans les conditions de gestion actuelle;

(c) la distribution d'eau et d'électricité, et l'assainissement: on attendra de la reprise des services par le secteur privé un apport de capital, et une meilleure couverture des besoins de la population qui aura un impact favorable sur la productivité du travail, et rehaussera les avantages comparatifs du pays aux yeux des investisseurs étrangers;

(d) la gestion des déchets solides: tout particulièrement à Casablanca, les défaillances à ce niveau sont telles que des améliorations rapides doivent être recherchées;

(e) les transports urbains: la crise des transports qui sévit dans les grandes villes justifie également des actions rapides;

(f) les autres sous-secteurs bénéficieraient d'une participation accrue du secteur privé, mais avec une urgence beaucoup moins prononcée. Les autoroutes ne nécessitent sans doute pas le niveau d'investissement couramment envisagé. Les transports maritimes sont très largement assuré par des armements étrangers efficaces, et la solution des problèmes de l'armement marocain est d'un intérêt catégoriel putôt que national. De tous ces autres sous-secteurs, c'est celui des transports aériens qui mérite le plus d'attention immédiate, en raison des enjeux financiers importants que représentent les options de restructuration envisageables et de la nécessité de limiter les charges de l'Etat.

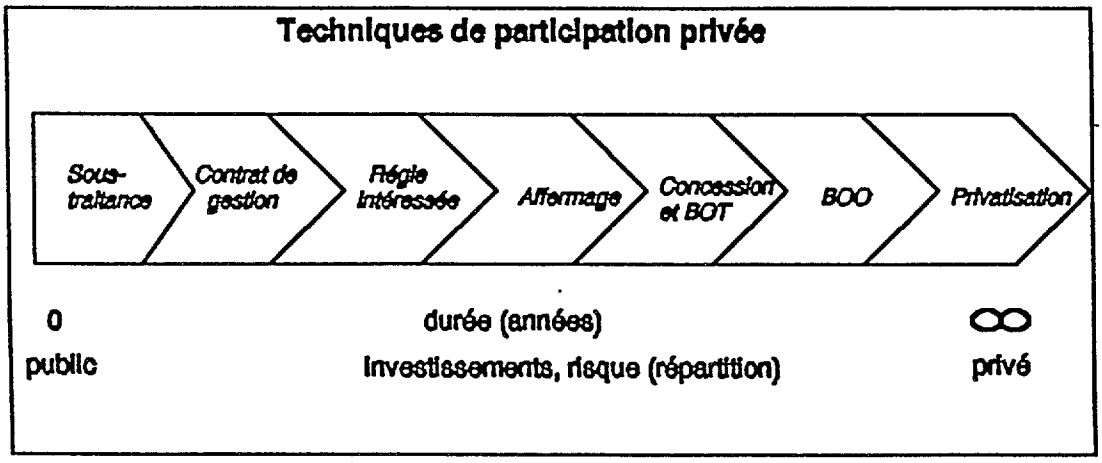
K. Réforme administrative

4.26 Les différentes questions évoquées dans ce chapitre, et de manière plus générale la transformation du rôle de l'Etat de la production de services publics vers la régulation de ces secteurs, implique un besoin de réforme plus fondamentale de l'administration publique. Il importera en particulier de supprimer certains ministères ou structures qui n'ont plus de raison d'être, et d'éviter que les nouvelles responsabilités esquissées dans ce chapitre, que ce soit en matière de conception ou de gestion du processus de réforme ou encore en matière de réglementation, ne viennent se superposer aux organismes et mécanismes pesants qui caractérisent le système actuel.

CHAPITRE 5. TECHNIQUES DE PARTICIPATION PRIVÉE

5.1 La participation privée peut être réalisée par différentes techniques, présentées schématiquement ci-dessous par ordre croissant de participation. On peut également distinguer selon que la technique vise principalement l'entrée de nouveaux opérateurs ou le désengagement de l'Etat. Dans la première catégorie, on retrouve la suppression du monopole public et l'ouverture du secteur à de nouveaux opérateurs privés, qui ont déjà été examinées dans la section B du chapitre 2 portant sur l'introduction de la concurrence. On peut également citer certaines techniques spécifiques, telles que les techniques dites de Build-Operate-Transfer (BOT) ou Build-Operate-Own (BOO) impliquant non pas un transfert du public au privé, mais seulement une ouverture au privé. Cette section-ci portera toutefois essentiellement sur les techniques de désengagement de l'Etat.

Tableau 5.1 : Techniques de participation privée



A. Sous-traitance - Acquisition de biens et services

5.2 La sous-traitance porte typiquement sur des activités auxiliaires, tel que l'entretien, le nettoyage, le transport, la restauration du personnel, l'imprimerie, etc. Elle peut également porter sur des activités plus centrales, telles que la facturation et la perception des redevances. Elle offre de nombreux avantages. Elle laisse ces activités à des spécialistes des secteurs concernés et permet à l'entreprise de service public de se concentrer sur ses activités de base. Elle résulte souvent en un meilleur service à moindre coût. Elle devrait être envisagée dans toutes les entreprises comme une première étape vers une

participation accrue du secteur privé. S'agissant de tâches et de contrat de petite ou moyenne taille, cette technique s'adresse avant tout aux entreprises locales et favorise le développement du secteur privé national.

5.3 La sous-traitance ne constitue évidemment pas une remise en cause fondamentale de la manière dont est organisé le service public et, à ce titre, elle ne peut prétendre apporter une véritable solution aux problèmes de type institutionnel ou financier qui affectent les secteurs d'infrastructure.

5.4 Le contrat de gestion (*management contract*) est une forme de sous-traitance plus poussée en ce qu'elle porte sur la gestion globale de l'entreprise. L'utilisation de contrats de gestion n'apporte toutefois pas de capitaux frais et ne transfère pas les risques de gestion du service public à l'opérateur privé; elle n'offre donc pas le même potentiel d'amélioration des performances et de permanence des réformes et ne paraît pas répondre aux objectifs et priorités du gouvernement marocain. Un contrat de gestion peut en outre compliquer de manière significative une privatisation ultérieure, le gestionnaire bénéficiant d'information et de connaissances sur l'entreprise que d'autres soumissionnaires n'auront pas. La régie intéressée, qui est un contrat de gestion avec intéressement du gestionnaire aux résultats de sa gestion, se rapproche de l'affermage et pourrait être envisagée dans certains cas, tel que la gestion d'un aéroport. Enfin, lorsqu'une privatisation se fait par vente d'une participation minoritaire à un investisseur stratégique, ce dernier aura souvent également un contrat de gestion; dans ce cas, il importera de limiter les risques de "prix de transfert", qui permettent à l'investisseur minoritaire de s'approprier une plus grande part des profits de l'entreprise en sur-facturant ses services.

B. Vente ou transfert de biens ou activités non-essentiels

5.5 Les options de démonopolisation des activités de service public ont déjà été évoquées (voir section B du chapitre 2 relative à la concurrence). La présente section vise certaines activités auxiliaires ou connexes, qui ne sont pas essentielles à l'exercice des fonctions de service public. Ainsi, une filiale et certains hôtels de l'ONCF ont déjà été inclus dans le programme de privatisation du gouvernement[41] et d'autres devraient l'être sous peu. De même, des entreprises publiques telles que l'ODEP ou l'ONDA ayant développé des zones industrielles ou ayant des terrains de type industriel dans leur portefeuille, pourraient se voir dessaisies de ces actifs et activités périphériques, par exemple par voie de vente au secteur privé. Les recettes de telles ventes peuvent être affectées soit à l'entreprise publique, soit au Trésor; dans le contexte d'une politique de désengagement de l'Etat, la seconde option sera souvent préférable[42]. A l'opposé de la démonopolisation, ce type de désengagement ne devrait pas requérir de réforme réglementaire particulière: en effet, il devrait soit être soumis à la réglementation en vigueur en matière de privatisation, soit aux règles en vigueur en matière de cession d'actifs.

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[41] Il s'agit de la SCIF, filiale à 24,5%, et des hôtels des Iles (Essaouira; vendu en juin 1994), Terminus (Oujda), Transatlantique - Casablanca) et Transatlantique - Meknès (vendu en mai 1994).

[42] L'entreprise publique pourra légitimement demander dans ce cas que les obligations spécifiques à cette activité (par exemple, emprunts contractés pour développer l'hôtel ou la zone industrielle) soient également transférées, soit au repreneur soit à l'Etat.

C. Affermage et concession

5.6 Les contrats d'affermage et de concession sont des contrats en vertu desquels une ou plusieurs collectivités publiques (par exemple, les communes en matière de distribution d'eau et d'électricité) octroient à une entreprise (normalement privée) le droit de fournir un service public en se rémunérant normalement sur les redevances qu'elle perçoit auprès des usagers.[43] L'opérateur a avant tout des obligations de résultat: il doit assurer le service public dans des conditions déterminées (continuité, non-discrimination entre usagers, normes techniques à respecter, etc.). S'agissant d'un service public, l'autorité concédante se réserve généralement le droit de modifier unilatéralement certaines conditions de la concession pour l'adapter à l'intérêt général, moyennant compensation lorsque ces conditions sont plus onéreuses (augmentation des redevances ou subventions). Le concessionnaire (ou fermier) est également tenu d'entretenir l'infrastructure nécessaire à la fourniture du service et il supporte les risques commerciaux liés à son activité. L'infrastructure elle-même reste la propriété de la collectivité publique qui en retrouve la jouissance complète au terme du contrat.

5.7 La concession figure parmi les techniques traditionnelles de participation du secteur privé dans les infrastructures. Elle s'applique principalement aux activités de nature monopolistique et comprend généralement des clauses d'exclusivité.

5.8 La technique de la concession a connu son essor au Maroc avant l'indépendance, étant notamment utilisée dans les domaines de l'eau, de l'électricité, des télécommunications, des chemins de fer, des ports et des transports urbains. Elle est progressivement tombée en désuétude par la suite. Ce déclin peut être attribué en grande partie à la politique de Marocanisation de l'économie. En effet, le souci de transférer le contrôle des grandes activités économiques aux nationaux et l'absence d'entreprises privées nationales ayant une expérience en matière d'exploitation de services publics a conduit à ne pas renouveler, voire même à racheter, les concessions en cours dans de nombreux secteurs.

5.9 Aucun texte ne régit la concession en droit marocain. Le régime de la concession y résulte de l'application des principes généraux du droit administratif et plus particulièrement du droit des contrats administratifs. La jurisprudence marocaine en matière de concession est très peu fournie et ne permet pas de combler les lacunes créées par l'absence de texte.[44] Les concessions de service public national sont normalement signées au nom de l'Etat par le ministre de tutelle après avoir été approuvées par décret du Premier Ministre. Pour les services communaux, la concession est signée par le président de la commune, du syndicat de communes ou de la communauté urbaine, selon le cas, après approbation du Ministre de l'Intérieur.[45]

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[43] Dans certains cas, le concessionnaire fournit un service "en gros" directement à l'entreprise publique, qui le paye, et c'est l'entreprise publique qui assure la distribution aux usagers finaux. C'est le cas, par exemple, de la concession d'adduction d'eau octroyée en 1949 à la SMD/ELYO (dont la durée court jusqu'au 31 décembre 1999), ou de la concession pour la production d'électricité à Jorf Lasfar en cours de négociation. Dans d'autres cas, tels que des concessions de collecte de déchets solides dans plusieurs pays, le service aux usagers est typiquement rémunéré par la commune concernée (quant aux bénéficiaires, ils doivent en général payer des impôts communaux, tels que la taxe d'édilité).

[44] Les tribunaux compétents pour les litiges entre concédant et concessionnaire sont les sept (7) tribunaux administratifs récemment créés, avec recours possible auprès de la Chambre administrative de la Cour suprême.

[45] Voir le chapitre 3 ci-dessus sur le cadre institutionnel.

5.10 La durée d'une concession est de nature purement contractuelle. A titre d'exemple, la concession de la Compagnie du chemin de fer du Maroc oriental avait une durée de 50 ans, tout comme la concession d'amenée d'eau à Casablanca (toujours en vigueur). La concession pour la distribution d'eau pour la ville de Rabat était quant à elle de 40 ans (1932-1971).

5.11 Le concessionnaire ayant en charge l'exploitation d'un service public, se trouve aux lieu et place du concédant et dispose des mêmes privilèges que ce dernier, en particulier l'expropriation et les servitudes spéciales de droit public (pose de canalisations, de poteaux et de câbles électriques, etc.). Cette délégation de prérogatives de puissance publique est souvent mentionnée expressément dans le contrat de concession.

5.12 Le Dahir du 14 avril 1960 institue un contrôle financier de l'Etat non seulement sur les entreprises publiques, mais également sur les sociétés concessionnaires et les organismes bénéficiant de concours financiers publics. Contrairement aux entreprises publiques, les concessionnaires ne sont pas tenu de procéder à des appels d'offres pour la passation de leurs marchés ou de se soumettre au visa préalable du contrôleur financier. Les modalités du contrôle financier exercé sur le concessionnaire est dans une large mesure à l'appréciation du Ministère des Finances. Jusqu'en 1994, la DEPP se contentait d'un contrôle a posteriori en réclamant seulement les comptes annuels. Depuis lors, les sociétés concessionnaires se seraient vu réclamer non seulement les comptes annuels des exercices clôturés, mais également les comptes prévisionnels pour l'exercice en cours: un contrôle a priori s'est donc ajouté au contrôle a posteriori. C'est dire que les contraintes découlant du dahir de 1960 peuvent être plus ou moins importantes suivant le zèle que peut mettre l'administration dans l'application de la loi et les instructions gouvernementales qu'elle peut recevoir. Le contrôle financier, tel qu'il existe aujourd'hui, constitue ainsi un obstacle sérieux pour le développement des concessions.

5.13 Aujourd'hui le mécanisme de la concession refait surface. Il n'a cessé d'exister, fût-ce en sourdine jusqu'il y a une dizaine d'années, en matière de transports urbains et a été proposé notamment pour la reprise des activités de la RAD à Casablanca par un opérateur privé. Il demeure le mécanisme de choix pour les secteurs ou sous-secteurs où il n'est pas possible d'organiser une concurrence directe entre opérateurs au sein du marché. Les sections sectorielles de ce rapport proposent ainsi différentes formes de concessions dans les secteurs de la distribution d'eau et d'électricité, des ports, des chemins de fer, des aéroports, des autoroutes, des déchets solides et des transports urbains.

5.14 Au vu des besoins de financement importants dans la majorité de ces secteurs (à l'exception peut-être des aéroports), les autorités marocaines semblent préférer la concession pure, qui implique la prise en charge des investissements par l'opérateur privé, à l'affermage, où ces investissements restent à charge de l'Etat. Dans certains cas, il est peu probable que l'on puisse trouver des investisseurs privés prêts à financer de gros investissements au vu de la faiblesse des montants pouvant raisonnablement être perçus auprès des usagers: c'est notamment le cas des autoroutes. D'autres montages devront donc être élaborés, tel que l'octroi d'une concession au soumissionnaire demandant la plus faible subvention.

Encadré 5.1 : Dispositions essentielles des contrats de concession ou d'affermage

Capacité juridique des cocontractants
Objet de la concession (étendue, portée, activités couvertes, etc.)
Définition
Durée de la concession
Octroi de licences, permis, etc. nécessaires
Capital de la société concessionnaire (montant, cessibilité des actions, etc.)
Ouvrages et installations faisant partie de la concession (propriété, transfert, etc.)
Régime de l'occupation du domaine public
Régime d'expropriation pour cause d'utilité publique; servitudes
Réalisation de nouveaux ouvrages et installations pendant la période de la concession
Mode de passation des marchés par le concessionnaire
Sous-traitance -- Sous-concessionnaires
Relations avec le fournisseur (e.g. fourniture d'eau ou d'électricité pour les concessionnaires-distributeurs)
Relations avec les consommateurs/usagers (y compris contrat-type entre concessionnaire et usagers)
Obligations de résultat et critères de performance
Obligations de service public (continuité, non-discrimination, adaptation du service; obligations particulières)
Normes à respecter par le concessionnaire
    techniques
    de sécurité, santé, environnement
    financières, administratives
Régime du personnel du concessionnaire
Responsabilité du concessionnaire
Redevances
Tarifs, formule tarifaire et mode de révision de la formule
Subventions (le cas échéant)
Impôts, droits de douane et taxes
Garanties fournies par le concédant et/ou l'Etat
Garanties et cautions fournies par le concessionnaire
Assurances
Dispositions en matière de concurrence (interconnexion, etc.)
Exclusivité (champ, durée, etc.)
Autres dispositions relatives à la gestion
Comptes de la concession
Amortissement des investissements
Information à fournir au régulateur
Information du public - procédures consultatives
Exercice de contrôles (financiers, techniques, etc.) par l'autorité concédante, le régulateur ou d'autres organismes
Inspection
Audit
Pénalités et sanctions
Indemnités
Modalités de substitution en cas de défaillance du concessionnaire
Amendements, modifications des contrats de concession
Mode de renouvellement ou extension de la concession (le cas échéant)
Résiliation ou déchéance de la concession
Cessibilité de la concession (*intuitu personae*, le cas échéant)
Faillite ou disparition du concédant
Expiration de la concession
Rachat de la concession
Modalités de retour/transfert en fin de concession (actifs, contrats, personnel, fonds de commerce, ...)
Indemnisation due en fin de concession
Force majeure
Mécanismes de concertation entre concédant et concessionnaire
Règlement des conflits et litiges entre concédant et concessionnaire (y compris arbitrage international, le cas échéant)
Application des textes législatifs et réglementaires
Annexes techniques

5.15 Dans la mesure où la technique de la concession risque d'être largement utilisée au Maroc, il importe de tirer les leçons de l'expérience du passé, ainsi que d'expériences en cours au Maroc et dans d'autres pays pour formuler un nouveau cadre régissant l'octroi de concessions et affermages. Ce cadre définirait les responsabilités des différentes institutions et organismes publics impliqués, organiserait le mode d'appel d'offres devant être suivi par les autorités concédantes, etc.[46]

5.16 Une liste non-exhaustive de questions importantes qui se posent dans le cadre de la négociation d'un contrat de concession ou d'affermage et du cahier des charges y afférent est présentée dans l'encadré 5.1 ci-dessus.

D. Vente d'actions

5.17 L'ouverture au privé par vente d'actions est une technique bien connue au Maroc, où elle a été appliquée dans de nombreuses privatisations. Elle requiert toutefois que l'entreprise à privatiser soit déjà constituée sous forme de société par actions, ce qui n'est pas le cas de la majorité des entreprises publiques d'infrastructure; en effet, une majorité d'entre elles est organisée sous forme d'établissement public. La transformation en société par actions ou le transfert de certaines de ses activités à une nouvelle société anonyme constitue un préalable si l'on souhaite choisir la vente d'actions pour privatiser tout ou partie d'une entreprise publique de droit public.[47]

5.18 La RAM, la COMANAV et ADM figurent parmi les exceptions. La participation du secteur privé pourrait donc déjà s'y effectuer par vente d'actions. Cela dit, une réorganisation du secteur pourrait s'imposer au préalable pour éviter un transfert de monopole (de droit ou de fait) du secteur public au secteur privé, surtout lorsqu'il s'agit d'activités potentiellement concurrentielles.

5.19 Par ailleurs, la vente d'actions peut être soumise à autorisation préalable du législateur. En effet, en vertu de l'article 45 de la Constitution, "les transferts d'entreprises du secteur public au secteur privé" sont du domaine de la loi. La loi de privatisation de 1989 autorise de tels transferts pour les entreprises dont le nom figure en annexe à la loi; ces annexes comprennent une entreprise de transport (CTM-LN, déjà privatisée), ainsi que certains actifs dont l'ONCF était propriétaire.[48] Pour les entreprises dont le nom n'a pas été annexé à la loi de privatisation, la vente par l'Etat (ou les entreprises publiques actionnaires) d'actions ne devrait être soumise à autorisation législative que dans la mesure où l'entreprise cesse d'appartenir au secteur public, notion généralement interprétée par rapport au contrôle de la majorité des actions: une entreprise cesserait d'appartenir au secteur public lorsque la part de l'Etat et des entreprises publiques dans son capital tombe en dessous de 50%.[49]

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[46] Voir ci-dessous le chapitre 8 sur l'opportunité d'une loi régissant la participation privée dans les secteurs d'infrastructure.

[47] Voir ci-dessus la section D du chapitre 2 sur la transformation d'entreprises publiques.

[48] Voir le paragraphe 5.5 ci-dessus.

[49] L'autorisation législative pourrait être donnée par voie d'amendement de l'annexe à la loi de privatisation, ajoutant lesdites sociétés à la liste qui y figure (ce fut le cas en janvier 1995 de la SAMIR et de la SCP), ou dans le cadre d'une autre loi.

5.20 Une autorisation législative ne serait donc pas requise si l'entrée du secteur privé dans le capital n'entraîne pas un transfert d'une majorité des actions du secteur public au secteur privé. On peut imaginer plusieurs scénarios:

- l'ouverture au privé se fait lors de la transformation de l'entreprise publique en SA; c'est le cas le plus tranché, puisqu'il est réglé par l'article 8 de la loi de privatisation;[50]
- l'ouverture au privé se fait dans le cadre d'une augmentation de capital réalisée par une entreprise publique sous statut de droit privé souscrite par des investisseurs privés;
- l'ouverture au privé se fait dans le cadre de la vente au privé d'actions détenues par l'Etat ou des entreprises publiques; c'est le cas de figure qui pourrait être le plus controversé, bien qu'a priori, ce type de transaction devrait pouvoir se faire sans autorisation législative préalable[51].

5.21 Différentes techniques peuvent être utilisées pour la vente d'actions. Il s'agira tantôt de placements privés, tantôt d'offres publiques de vente.[52] Ces dernières ont remporté un succès certain au Maroc depuis le placement en bourse de CTM-LN en 1993. Une vente d'actions en bourse n'est toutefois pas recommandée comme première étape pour les grandes entreprises des secteurs d'infrastructure et de services publics. Celles-ci ont besoin d'investisseurs professionnels, et notamment d'opérateurs expérimentés (voir ci-dessous, section sur la sélection d'opérateurs). Rien n'empêche toutefois, que des actions soient mises en bourse dans le cadre d'une seconde tranche, la première tranche étant réservée à un consortium d'investisseurs qui assureront la gestion et le redressement de l'entreprise avant sa mise en bourse.[53]

E. Liquidation ou dissolution des entreprises publiques

5.22 La liquidation ou dissolution d'une entreprise publique est une technique qui ne s'applique pas seulement aux entreprises dont l'activité est appelée à s'éteindre. Elle peut résulter du transfert de l'ensemble des activités d'une entreprise publique au privé, que ce soit parce que l'entreprise publique n'est pas organisée sous forme sociétaire, que le gouvernement ait décidé de scinder ses activités en plusieurs entités, ou que sa situation financière est telle qu'aucun acquéreur ne pourrait être trouvé.[54]

5.23 La liquidation d'une entreprise publique est le processus par lequel l'Etat (ou autre propriétaire public) se dessaisit de l'entreprise en transférant la propriété des actifs (et du passif) de l'entreprise plutôt que de l'entreprise elle-même. La dissolution vise plus particulièrement la fin de l'existence juridique de l'entreprise. Lorsque l'entreprise est un établissement public, sa dissolution et liquidation requièrent une loi en vertu de l'article 45 de la Constitution et du principe du parallélisme des formes. Lorsqu'il

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[50] Voir l'article 8 de la loi de privatisation. Voir également la section D du chapitre 2 ci-dessus.

[51] Il est intéressant de noter à cet égard que un bon nombre de participations minoritaires furent inclues dans la liste d'entreprises publiques à privatiser (loi de 1989): il s'agissait principalement de participations dans des entreprises des secteurs financier et industriel, allant de moins de 10% à près de 50%.

[52] L'article 4 de la loi de privatisation stipule que les transferts visés par cette loi "s'effectuent soit en suivant les procédures du marché financier, soit sur appel d'offres, soit en combinant ces deux modalités".

[53] Voir également la section D du chapitre 7 ci-dessous sur le financement privé local.

[54] La liquidation tend ainsi à être la technique de désengagement la plus pratique pour les entreprises publiques qui ne tiennent pas une comptabilité rigoureuse ou dont le passif est inconnu, incertain ou imprévisible.

s'agit d'une société anonyme (e.g. RAM ou COMANAV), une décision de l'assemblée générale extraordinaire des actionnaires pourrait suffire (application du droit commercial commun), mais dans la mesure où la liquidation résulte en un transfert de l'entreprise au secteur privé, l'article 45 de la Constitution pourrait trouver à s'appliquer et une loi serait alors requise. En ce qui concerne les régies municipales, leur dissolution et liquidation ne peut se faire qu'en respectant la forme qui avait été retenue pour leur création, à savoir par délibération du conseil communal ou du comité de syndicat de communes, approuvée par l'autorité de tutelle[55].

5.24. La liquidation est la technique de désengagement privilégiée dans de nombreux pays, dont le Mexique dans la phase initiale de son programme de désengagement et la plupart des pays d'Afrique sub-saharienne. Elle permet souvent un désengagement rapide et efficace en échappant aux formalités et aux complexités de la faillite. En effet, la faillite, qui ne peut normalement s'appliquer qu'aux entreprises organisées sous forme sociétaire, requiert l'intervention des tribunaux qui géreront ou du moins superviseront toute la procédure. Au terme de la liquidation, et à l'encontre de la faillite[56], le propriétaire public reste toutefois généralement tenu de toute dette de l'entreprise restant due.

5.25 En vertu du principe de la continuité du service public, lorsqu'il s'agit d'une entreprise prestataire de service public, sa liquidation ne peut intervenir qu'après reprise de l'activité de service public par une autre entité (publique ou privée). Dans le cadre d'une privatisation, la liquidation ne peut en principe avoir lieu que lorsque le transfert au repreneur privé est complètement réalisé et que le service public fonctionne normalement.

F. Participation des salariés et cadres

5.26 Quelle que soit la technique de participation privée choisie, il importera d'examiner dans quelle mesure les salariés et cadres de l'entreprise pourront y être associés. Différentes techniques ont été utilisées à cet effet, qu'il s'agisse de la sous-traitance de certaines activités à des employés quittant l'entreprise, ou l'octroi d'actions gratuites ou à conditions préférentielles dans le capital de l'entreprise. La participation au capital des salariés et cadres peut leur fournir des incitations matérielles à une meilleure performance de l'entreprise et faciliter leur adhésion aux mesures que celle-ci devra prendre pour demeurer compétitive et rentable. Le programme de privatisation marocain comprend une telle participation dans des conditions fixées par décret (en vertu de l'article 7 de la loi de privatisation). Les avantages d'une telle participation sont particulièrement importants dans le secteur des services et pour les activités nécessitant beaucoup de main d'oeuvre, et donc pour une majorité des secteurs couverts par la présente étude. Elle peut utilement compléter, mais ne remplace toutefois pas la présence d'investisseurs stratégiques.

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[55] Certaines leçons devraient pouvoir être tirées de l'expérience marocaine, et notamment de la dissolution de la régie des transports urbains de Tanger, dissoute en 1990 pour faire place à de nouveaux opérateurs privés.

[56] Une grande majorité des dettes et obligations d'entreprises publiques organisées sous forme sociétaire et contrôlées par l'Etat, telles que RAM, ADM ou COMANAV, sont toutefois probablement garanties par l'Etat, explicitement ou implicitement. Une procédure de faillite n'affecterait pas cette garantie.

The objective of this technical guide is to describe the principle steps and fundamental issues invloved in the establishment of concession contracts in the waste and ports sectors.

I. Preliminary Project Evaluation

Concessions represent a form of private sector participation in which the government sells to the private sector investor (concessionaire) the right to operate a certain business. Concessions are typically used where the business is considered to be either a public good or infrastructure. The concession process has the advantages of tailoring deal specifications via the contract and of enabling private sector participation without transferring assets to the private sector. Concession contracts are typically long-term and require some level of government oversight for enforcement. Exhibit I presents a checklist for issuing a concession.

In the ports area, concessions are frequently granted to private sector operators of cargo, specialty cargo, or container terminals. Ports concessions are alternatives to full privatization, where cargo facilities are sold as going concerns to private operators. In the waste sector, concessions are the most common form of private sector involvement. Factors to be considered in deciding on a concession style privatization include government privatization policy and civil law framework.

Governments frequently use concessions when they wish to:

- stimulate sector specific private investment
- improve efficiency through private sector management
- diversify commercial risk
- retain asset ownership

Concession contracts include factors directly related to the financial benefit of the project to the concessionaire, such as tariffs, license fees, and investment requirements. These mechanisms can be used to provide incentives for the concessionaire to behave in keeping with government objectives.

II. Legal and Financial Aspects

Among the considerations for a private investor to enter a market are the legal and financial conditions of the country. Frequently, national legislative change is necessary to allow for private participation in infrastructure industries. This would be an issue for either waste or ports privatization, as well as more sector specific concerns. The most important concern for waste privatization is the authorization of municipalities to enter into agreements with private sector

operators. This is because most waste privatizaton is undertaken at the municipal level, rather than nationally.

Among the important aspects of the legal environment for ports privatization is labor law. When the Government of Peru ended its state owned monopoly controlling port labor in 1991, labor costs in ports dropped 76%. Legal protections for labor as well as operator flexibility with respect to labor force management are almost universal issues in ports privatization. Other concerns for ports management include laws governing imports, anti-trust, corporate reorganization, and sale of assets.

Other national initiatives of concern for privatization also apply to waste and ports concessions. These include tax policy, requirements for local partners, the foreign investment code, and the sophistication of the civil law framework. Non-legislative concerns over exchange rate stability, availability of foreign exchange, and permitting risk are also likely to affect investor interest.

III. Introduction of Competition

The nature of competition in the waste and ports sectors may vary based on market requirements. There is a distinction between competition in a given market and competition for that market. In the first case, multiple providers offer service in the same market and compete with each other directly to attract business from specific customers. The latter, competition for a market, is one where alternative providers compete for concessions but concessions are only granted to one provider at a time.

Linked to decisions about introducing competition are decisions regarding target sector structure. Sector structure issues include vertical integration as well as the number of competitors to be authorized. In the ports sector, there are three main models of competition:

- **Inter-company competition**: This is observed largely in the cargo handling market segment. Different companies would have facilities to handle cargo and would compete with each other to attract business from the carriers. This model has been used less widely than the other models.

- **Competition for the market**: This form of competition involves successively rebidding an exclusive contract. It might include such functions as berth maintenance, cargo handling, or services to ships. Competition for the market enables operating companies to realize economies of scale, thus making the market more attractive.

- **Inter-port competition**: Inter-port competition includes both international competition as well as competition between different ports in the same country.

Within the waste sector, some differentiation is made between waste collection and landfill management. The first decision to be made in introducing competition in the waste sector is whether a single company may manage both collection and landfill operations, or whether these functions should be managed separately. Since each of these areas may have either single or multiple operators, there are a number of options open to waste authorities.

Decisions about target sector structure and number of operators should balance several factors:

- **Market size**: Attracting competitors may be difficult in sectors historically dominated by government. Competitors in smaller markets may need the economies of scale associated with exclusivity to provide sufficient profitability. Conversely, if other operators are not permitted to compete in the market, then there might not be other players to compete when a new concession is tendered. In the European ports sector, increased competition during the past 20 years is considered to have resulted in overcapacity and fragmented investment.

- **Geographic market definition**: Geographic definitions are a greater issue for the waste sector than the ports sector. Waste management is frequently addressed at the local level, so identifying the specific community(ies) of interest defines the size and dynamics of the markets to be served. Ports concessions are typically done by port, offering a more natural market definition.

- **Sector dynamics**: The specific composition of services to be provided sheds a great deal of light on the economics underlying a concession contract. In the waste sector, a waste stream analysis is generally used to identify the magnitude and composition of waste services for a given area. The results of the waste stream analysis may be used to project business conditions for the concessionaire. Similarly, a ports environmental assessment would identify the political, economic, social, operational, and technical factors defining the concessionaire's operations.

- **Regulatory authority**: In both ports and waste, the strength of the regulatory authority is critical to successful introduction of private sector participation. The stronger the regulatory authority, the easier it is to centralize operations, whereas broader competition mitigates the need for regulation. For example, competition within the waste collection sector may be implemented via multiple contracts with a local authority or by allowing end users to select their own waste removal service provider. The capacity of a local authority to manage competing contractors needs to be considered in deciding at what level competition is implemented. In the ports sector, inter-company competition would keep a cap on prices, reducing the need of tariff setting regulation, which would be carried out by a Rates Commission. Such competition would, however, also increase the demands on the Port Authority, which would have to oversee safety and quality conditions for a

greater number of operators. While regulatory dynamics may need to be modified to accommodate differing levels of competition, government's ability to appropriately regulate should be considered in determining competition levels.

- **Government policy**: General government policy regarding competition, liberalization, and sector structure will necessarily flow down into sector specific decisions. For example, the privatization of Port Kelang in Malaysia was part of a government-wide privatization campaign. The overall privatization policy stemmed from Prime Minister Mahathir's belief that government's obligations to fund public enterprises was responsible for economic crisis.

Once sector structure decisions are made, the government must decide how many competitors should participate in a sector, what the timing of competition is, and how to phase in competition. Exclusivity is a key issue in any concession and needs to be spelled out in the contract. While most ports and waste type concessions have been exclusive, competition can be introduced with or without an exclusivity period. Advantages to government of an exclusivity period for competitive services are to making the concession easier to sell and to allowing higher investment requirements.

IV. Elements of the Contract

Concession contracts should be structured to promote incentives for efficiency, operational autonomy, and accountability. Mechanisms for providing operational incentives are exclusivity, concession term and renewal options, and tariffs. The operating framework is established in contractual provisions outlining the regulatory regime and technical specifications. Accountability is supported through quality control provisions, dispute resolution procedures, and any structure of bonuses and penalties which may be used.

Key contract provisions include:

- **Term and renewal options**: Concessions are typically long-term, but may have buy-out or renewal clauses which can be structured to reflect market structures, such as a 30 year contract with periodic rebids. The purpose of long-term concessions is to allow operators to recover the substantial amount of investment they are expected to make during the early years. Renewal or rebid options maintain competitiveness in the concession process, while still providing a mechanism for investment to be recovered. There are no hard and fast rules about concession terms. Although many ports concessions range from 20 to 25 years, a recent concession in China had a 50 year term. Smaller investment requirements might justify shorter terms for waste concessions. In Bolivia, a recent waste concessions had a 5 year terms (plus a 90 day start-up period) with optional 5 year renewals. The renewal option provided an incentive for high quality performance.

- **Exclusivity**: Exclusivity provisions in the concession contract must reflect long-term decisions embodied in sector policy. Ports concessions in smaller or less developed markets tend are more likely to be exclusive than in larger markets for two reasons. First, larger markets have greater traffic to justify additional operators without risking overcapacity. Second, larger port cities are likely to have more operators bidding for concessions. Exclusivity for waste concessions is also difficult to determine *a priori*. In Bolivia, the decision to award one vs. two concessions was deferred until after the results of the solicitation process were known.

- **Tariffs**: Tariffs represent the rates charged by the infrastructure provider to the end users. In the case of ports, cargo handling tariffs are charged to the carrier, who collects them from the end user. In the waste sector, tariffs are payable to the concessionaire by either the municipality or by the end user, depending on how the concession is structured. Initial tariffs are generally negotiated during concession award and incorporated in the contract. Tariff changes may be addressed by specifying an index which tariffs may follow or leaving tariff changes to the discretion of a regulatory body.

- **Regulatory Framework**: The concessionaire must comply with the prevailing regulatory framework. This framework may be explicitly incorporated into the contract or may be incorporated by reference to documents promulgated by a regulatory authority. One of the advantages of concession-style privatization is that the contract mechanism facilitates regulation where regulatory authorities are weak or non-existent. Therefore, the contract may specify only that the concessionaire is subject to regulation by an established regulator or it may spell out a regulatory regime unique to that concession and enforceable through contract law.

  Concessionaires for ports will likely be subject to regulation from the Port Authority as well as possibly from a Ports Rates Commission. A ports concession contract would explicitly state the concessionaire's rights and obligations relative to either or both regulatory bodies. The most important regulatory function for waste concessions is agreement on the weight of the waste collected. Since the municipal government is often the customer, it is unlikely to perform regulatory functions with impartiality. Therefore, most waste concession contracts specify the weight measurement on which payments will be based.

- **Technical Specifications**: Technical specifications may be incorporated directly into a concession contract or a standardized set of specifications may be used. The degree of specificity for technical requirements will vary depending on the country experience in the sector and the amount of competition available. Technical specifications carry with them implicit investment requirements. If the concessionaire needs to make investments to meet

the technical specifications, the magnitude of investment is less important to the government than the result in practical terms.

Less detailed specifications have the advantages of administrative ease and market sensitivity. When the Malaysian Port Kelang was privatized, throughput increased by 32% during the first two years. Despite less then expected growth, the privatization was still considered to be a success, based on market conditions. First, the shortfall was demand, not supply driven (i.e., global recession limited the volume of imports/exports) and, second, productivity increases enabled the port to compete successfully on international markets.

- **Bonuses/penalties**: Bonuses and penalties may be added to the concession to provide incentives for excellent performance on certain dimensions, such as timely investment, rapid improvements in service quality, or entry into new markets. In the Bolivia waste contract, penalties were used to prevent such actions as accepting bribes, abandoning a vehicle, failure to meet contractor obligations, picking or selecting materials form the waste set out for collection, inappropriate use of vehicles, or failure to maintain equipment.

- **Dispute resolution**: Dispute procedures should be set out in the contract and should include points of contact within organizations, the role of a regulatory agency in resolving disputes, and procedures for legal resolution. Issues to be addressed in legal resolution include forum selection (*where* the dispute will be resolved) and choice of law (*which* law the forum will use). This issue is sufficiently prevalent across sectors and across countries, that the it has been addressed in the Francophone Africa Model Agreement, which provides for disputes being resolved "... by an arbitration board of three judges, one appointed by the State, another appointed by the Concessionaire, and a third appointed by mutual agreement of the parties...Arbitration proceedings shall be conducted in French, according to the conciliation and arbitration regulations of the International Chamber of Commerce of Paris, France."

Exhibit I. Steps in Implementing a Concession
(steps should be performed in parallel)

I. Decide to use concession

- ❑ Define government objectives
- ❑ Define project
- ❑ Conduct preliminary investigations
- ❑ Assess financial feasibility
- ❑ Allocate risks

II. Assess Legal and Financial Implications

- ❑ Review relevant legal/regulatory framework
- ❑ Review taxation implications
- ❑ Identify local content/partnering requirements
- ❑ Review foreign investment framework

III. Define Competitive Regime

- ❑ Determine how competition will be implemented
- ❑ Specify timing of competition
- ❑ Specify mechanisms for introducing competition
- ❑ Specify target number of competitors

IV. Draft Contract

- ❑ Approve technical specifications
- ❑ Approve pricing regime
- ❑ Specify regulatory compliance requirements
- ❑ Specify competitive regime
- ❑ Identify other provisions (e.g., penalties, dispute resolution)

V. Conduct Solicitation

- ❑ Assess interest of major operators
- ❑ Market transaction to major operators
- ❑ Distribute draft contract
- ❑ Solicit financial proposals

PIRINDIA WATER CASE STUDY (PART A) : ENTRY CONDITIONS

Introduction[1]

On July 26th 1991, the Privatization Committee for water and sewerage works in the Republic of Pirindia met for the first time to consider options for private participation in that sector. The formation of the Committee was a response to badly needed capital investments and efficiency improvements, as well as an expression of interest made by a major international water and sewerage service operator, Purewater. With the World Bank and the Ministry of Public Works (MPW) advising,the Committee examined alternatives.

An Unsolicited Expression of Interest

Late in the evening in February 1991, C.W. Tortolli, Undersecretary of Public Works for the MPW in Pirindia, considered an unsolicited expression of interest submitted by a consortium of leading European water providers, led by Purewater (see Exhibit 1 for excerpts from the consortium transmittal letter). In keeping with its global operations strategy, Purewater expressed interest in managing all aspects of the water supply and sewerage systems for the metropolitan area of Piritown, Pirindia's capital. The consortium also suggested a gradual expansion and upgrading of the city's water and sewerage services.

Mr. Tortolli knew Purewater; the company had experienced previous success with sewerage and water concessions in developing countries. Despite the cost of the Piritown system's investment needs, estimated by the MPW to be US $3-4 billion over a 25 year period, the strong revenue prospects from satisfying unmet water and sewerage service demand, coupled with strong GDP growth projected for the next five years, enticed the consortium to establish a presence in the region. The Purewater group knew that out of a total population of almost 9 million in metropolitan Piritown, only about 6 million had houses with piped water connections; of these, only 5 million had access to public sewerage systems. It was expected that the population in the metropolitan area would grow at a rate of .5% per annum for the next thirty years. The per capita water demand was estimated at 400-500 liters per day: twice the average for well-managed systems.

Pirindia's Economy and Financial Markets

Before submitting their letter of interest, the Purewater Board of Directors reviewed projections of Pirindia's economic performance and political prospects for the next several years. The 1989 presidential election of moderate Jaime Blanco helped reverse the decades-long trend of statist intervention perpetrated by Pirindia's military rulers. Mr. Blanco was looked upon favorably by all

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[1]This case study was developed by *Price Waterhouse LLP* for the Private Participation in Infrastructure (PPI) Principles and Techniques Seminar given for the World Bank Group. The case is meant to serve as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business scenario. The authors of the case wish to thank the World Bank's PPI Group for obtaining information necessary to write the case. Sources for this case include World Bank and concessionaire analyses of the actual case upon which Pirindia is based. Names in the case have been fictionalized for teaching purposes. Further use of the case is prohibited without permission from *Price Waterhouse LLP* and the World Bank's PPI Group.

levels of Pirindian society and was determined to push through economic reform. His popularity led many analysts to believe that he would also be the front-running candidate in the next presidential election due in 1995.

Economists forecasted stable annual inflation, around 10%, over the medium term -- a remarkable turn-around from the days of hyper-inflation in the 1980s. Moreover, analysts predicted real GDP growth at 7% *p.a.* for the same period (see Exhibit 2 for a summary of key macroeconomic and financial indicators). Much of this optimism resulted from the GoP's successful strategy to reduce its foreign debt and diminish the overall public sector deficit. The World Bank classified Pirindia as an "upper" income country which, among others, included: Korea, Brazil, Hungary, Mexico, and Argentina.

By pegging its currency (the zip) to the dollar in early 1991, the GoP demonstrated its commitment to prudent fiscal policy. With the zip's full convertibility and the exchange rate pegged at a $1:1z parity, the GoP no longer had the option of printing zips to finance its deficit. Both the dollar-zip parity and the ending of exchange rate and capital controls allayed investor concerns about exchange rate risk for dollar denominated investments. Foreign direct investors and concessionaires also received a one year tax holiday.

Despite the GoP's increasing fiscal prudence since 1989 (including a balanced federal budget in 1991), domestic savings rates remained low and capital markets relatively thin. Bank loans in 1990 amounted to less than 20% of GDP, compared with 70% in other upper-middle income countries. Interest rates also remained high, on average 30% *p.a* in 1991., to combat inflation and to keep the zip on par with the dollar. Due to the existing high interest rates and large levels of public debt accumulated in past years, the GoP preferred to attract private, preferably international, capital to finance long term investments.

Although the country's stockmarket capitalization rose significantly from 1990, largely due to an influx of foreign investment resulting from the privatization program, it was low compared to many of its middle income counterparts (see Exhibit 2). Furthermore, barely 40% of the stockmarket was tradeable since many shares were controlled by family owners. Combined, these factors limited recourse to domestic financing for large capital investments.

Privatization

In tandem with its economic reform, Pirindia initiated a privatization program in 1990. At that time, it became apparent that the key to Pirindia's economic adjustment was improved public finances and the need to improve the efficiency of Pirindia's utilities. But the improvement could not come from simple wage repression, since that tactic had repeatedly proven unsustainable.

In order to control its public finances, Pirindia needed to rid itself of expenditure programs which sustained inefficient publicly-owned enterprises (PEs). This rationale, along with encouragement from the World Bank, became the impetus for a widespread privatization program which entertained much

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popular support, as well as foreign investor interest.[2] By 1991, the country successfully privatized numerous PEs, and initiated or completed privatization of several public utilities, including power and telecommunications, and the national airlines. Revenues from the sales provided a financial cushion while fiscal reforms took hold and the economy began to stabilize.[3] However, the speed of the privatizations often outpaced the creation of a regulatory framework for the newly privatized utilities.

Key Problems with MPW's Water and Sewerage Operations

The magnitude of the MPW system was indicated by the huge extension of its water distribution network (some 11,000 km) and sewerage collection (more than 7,000 km). Operations consisted of two water production and purification plants, one of which was among the largest in the world, which had a combined capacity of 3.6 million m^3 /day.

Most of the sewage collected by the network -- approximately 2.2 million m^3/day-- was returned, without any prior treatment, to the Ongo river (downstream of the two main water intakes). Untreated domestic and industrial sewerage was also disposed of into several rivers crossing the area and eventually discharging into the Ongo river, in some cases upstream of the water intake. Only a very small percentage of the sewage collected in the area underwent treatment, in one wastewater treatment plant which was poorly operated.

Despite repeated attempts to improve the efficiency of the MPW, overall performance remained unsatisfactory. Main problem areas included:

- *Technical/Operational.* More than 50% of the water produced was unaccounted for (compared with 10-20% in well managed systems). Much of this resulted from physical losses due to old pipes which were neither replaced nor maintained for a very long time.

- *Commercial/Financial.* Demand management proved futile since neither treated nor consumed water was metered[4]. In most cases, water charges were based on lot size and property value, regardless of the amount consumed. These practices created losses for MPW. The estimate for 1991 was an operating loss of $7,000,000. However, the quality of existing financial and operational information was poor. Revenues could not be audited; financial projections and estimates of water consumption and demand reflected ball-park estimates.

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[2]Of the 18 firms which subsequently controlled 60% of the newly privatized enterprises, 7 were Pirindian and 11 were foreign.

[3]The sale of the national airlines, Pirairia, provided GoP with US$ 260 million in cash plus the buy-back of US$ 2 billion in external debt.

[4] Only 20% of connections had meters. Of these, few were monitored for billing purposes. Despite the lack of metering and customer accountability for consumption, the average tariff rate of $.40/$m^3$ came closer to covering operating and maintenance costs than the tariffs of some neighboring countries. Alandia, for example, charged an average water tariff of $.04/$m^3$.

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Ineffective collection and billing practices also created commercial losses. Laws prohibiting cutting off water services in the event of non-payment did not permit sufficient revenue generation for either expansion of service or for protection of the environment against contamination by untreated sewage discharges. From 1981 to 1991, the MPW's annual capital investments averaged less than US $20 million per year -- a small amount for a system that size.

- *Human/Institutional.* The MPW water and sewerage works had a staff ratio of 8-9 employees per 1000 connections, in comparison with 2-3 employees per 1000 for an efficient water company. Many of the staff were political appointees, with little technical ability. The MPW also simultaneously operated and regulated itself -- there was no independent regulatory agency.

- *Environmental/Social.* Those who were not connected to the system, disposed of sewerage through cesspools and septic tanks which endangered groundwater. Those who were connected discharged untreated sewerage into the Ongo river, contaminating the main source of potable water for the city. In addition, nearly 3 million people were without connection to the water supply system.

Purewater's Investment Concerns

In its statement of interest, the Purewater group identified four key pre-conditions for participation in a water and sanitation concession:

- First, Purewater sought assurances that they would eventually be able to charge a tariff which covered all operating and investment costs.

- Secondly, because there was no water regulation authority in place at the time of their expression of interest, the group required a mutually acceptable system of mediation, as well as an established regulatory entity with which it could work.

- Next, Purewater stated that they, as well as other international investors, perceived the current policy against cutting off water services in the event of non- payment as an operating risk. Only a policy which allows cutting off the service in the event of non-payment can eliminate payment defaults and reduce payment delays.

- Finally, Purewater required assurance about Pirindia's existing social safety net plans to finance labor redundancies resulting from privatizations.

Mr. Tortolli felt that Purewater's inquiries seemed reasonable. However, he realized that if private participation advanced, these investment pre-conditions could become potential sticking points with the GoP, existing management and labor unions.

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The Bank's Role

As a first step to evaluating Purewater's expression of interest, and formulating an appropriate response for the European investor group, Mr. Tortolli decided to solicit the opinion of Mr. Geddy Serlin, Task Manager at the World Bank. Mr. Serlin had been involved with Pirindia's water supply system since 1986, when the Bank's first water supply loan to Pirindia became effective. Since that time he oversaw technical assistance projects (primarily operational improvement studies and fixed asset assessments) which identified solutions for Piritown's operational and financial losses. Preliminary technical assistance underlined the need for (i) rehabilitation of the water network in order to curtail existing water loss and (ii) expansion of water and sewerage network in order to meet present and future unsatisfied demand.

Mr. Serlin knew that with over 3 million people without adequate water supply and 4 million without adequate sewage disposal in metropolitan Piritown, new investments for expansion of service, major rehabilitation of existing facilities, as well as radical changes to provide adequate operations and maintenance (O & M) to the system could not wait. Mr. Serlin had therefore encouraged the GoP to move forward with operational restructuring. The Bank would be able to provide additional technical assistance funding for a rehabilitation and expansion study, however, it would not be able to fund capital investments. Because of the Ministry's tight budget and Pirindia's thin capital markets in 1989 and 1990, the MPW was not in a position to begin the necessary improvements.

Following Mr. Tortolli's call, Mr. Serlin wondered whether Purewater's expression of interest signaled a change in events. How could the Bank facilitate greater private involvement in the water and sewerage system? What would now be the timing of the restructuring? How would the private sector participate? What attitude should be adopted with respect to unsolicited proposals/expressions of interest?

Resistance to Private Participation

Mr. Tortolli knew that any form of private participation in the sector was certain to bring contention on many fronts; and would therefore have to build consensus. For instance, Metropolitan Piritown's municipal and regional governments would surely demand input in matters relating to water and sewerage privatization in their jurisdictions.[5] Mr. Tortolli did not want to repeat the experience of neighboring Alandia, where the bidding process for a water concession collapsed due to in-fighting among the municipal governments who jointly owned the assets. As a result, potential private operators became distrustful of the negotiators representing Alandia's municipalities.

Another element of resistance was public works water and sewerage employees, and their representative unions, who disdained the idea of a foreign private company exercising management authority. The water works was widely believed to be overstaffed. Consultant's studies and World Bank estimates suggested that the current water and sewerage services staff of 7,600 could be effectively halved without sacrificing efficient service.

[5] Both municipal and regional governments resided within the metropolitan area of Piritown and often felt they were left without a voice in Piritown's federally-managed water sector policies.

The Formation of the Privatization Committee

Given the cost associated with restructuring and the amount of capital investment required for Piritown's existing water and sewerage services, Mr. Tortolli believed he had a case for convincing the GoP that private-sector provision of water and sewerage services was the best alternative. Upon the suggestion of Mr. Serlin, Mr. Tortolli urged the GoP to use the existing political window of opportunity, created by the success of other utility privatizations, to build public consensus for the potentially contentious water services privatization.

On July 5th 1991, the Minister of Public Works approved Mr. Tortolli's initiative to create a committee that would evaluate private sector participation in Piritown's water and sewerage provision, but not without stipulations. The Minister believed that MPW should do its utmost to incorporate into the process those parties who would most likely be resistant to the idea of private participation. In particular, he thought the waterworks unions should have a say in the privatization preparation process, especially if massive employee lay-offs were foreseen.

To increase the acceptability of his initiative, Mr. Tortolli assembled an 11 member Privatization Committee, composed of MPW officials, labor unions, and representatives of three levels of government (national, regional, municipal). The broad representation of the Committee, along with a requirement for unanimity for all voting procedures, helped to build political consensus among all parties involved. Although this measure helped consolidate support for the need for privatization, the central question remained, "what form should private sector participation take?".

Ultimately, three options were considered. One was an asset privatization, an approach adopted for other public services in Pirindia (electricity, gas, telephone). This was also the model adopted for water provision in the United Kingdom. Mr. Tortolli had enjoyed an opportunity to see and hear about the UK experience during a recent tour sponsored by the British government. Though the UK's franchising method conformed with Britain's political currents of the time and historical factors, officials told Mr. Tortolli that the resulting high post-privatization water prices met with resistance from many consumers. Post-privatization price hikes primarily resulted from: (i) subsequent EC directives, calling for improved water quality and provision standards, requiring larger than expected capital investments and; (ii) the private operator's need to raise tariff's to offset the large initial outlay required to buy the water franchise.

A second option was a concession model in which the concessionaire enjoyed the use rights of the existing facilities and equipment necessary for the provision of service, without actually assuming their ownership. Finally, management contract and leasing options were considered.

Exhibit 1
Excerpts from Expression of Interest
Pirindia Water and Sewerage Provision

February 7, 1991

Mr. C. W. Tortolli
Undersecretary of Public Works, Ministry of Public Works
Government of Pirindia
Piritown, Pirindia

Dear Mr Tortolli:

We are a consortium of companies dedicated to providing top-quality water and sewerage services worldwide. Our four-member consortium led by Purewater currently manages water services in over forty municipalities in five countries.

Our forte has been providing concession-based services in Europe, where we have helped governments restructure and rehabilitate operations, as well as launch long term capital investment programs. While our experience is mostly in operating water and sewerage systems in Europe, we have recently branched out into developing regions. Our record speaks for itself, and we would be happy to provide you with a list of qualifications for our specific member companies as well as for our consortium as a whole.

It is in this context that we express interest in the restructuring and rehabilitation of Piritown's waterworks system once it is officially opened to private participation. Our track record and proven technologies make us a leading candidate to work with the waterworks authority and the MPW in providing a more efficient and modernized water provision system. Furthermore, we possess strong working relationships with international investors and global commercial banks. These ties will allow us to access financing necessary for the investments required to rehabilitate Piritown's existing delivery systems and to meet current unsatisfied demand in the metropolitan area.

Pirindia's rebounding economy and successful privatization program provide the Purewater group with a promising environment in which to operate. However, prior to our participation in this badly needed rehabilitation, we require that entry conditions be conducive to private participation. The following conditions are pre- requisites for our involvement:

- A tariff rate covering all operating and investment costs;
- An established regulatory agency, and mutually acceptable legal recourse mechanisms, through which contract disputes can be resolved;

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- A change in the current policy which disallows service cut-offs in the event of non-payment.
- A GoP financing plan for labor redundancies resulting from privatization.

Upon fulfillment of these conditions, we respectfully request your consideration should MPW put forth a water concession tender. We are prepared to move quickly with the drafting of a business/investment plan. However, we first need to be assured of the GoP's commitment to the specified prerequisites for investment. The rehabilitation and restructuring of Piritown's water and sewerage services is a complex challenge. We look forward to the opportunity to meet this challenge and work closely with the government of Pirindia to advance the goals of private sector participation in the economy.

Sincerely,

Pierre Otto
Managing Director
Purewater Consortium

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Exhibit 2
Key Macroeconomic and Financial Market Indicators
Pirindia: 1991

GDP Growth

Year	GDP('000) $US	%Real Growth p.a.
1989	68,997,000	-.3%
1990	105,440,000	-.5%
1991	189,216,000	5.0%
1992*	228,512,000	7.0%

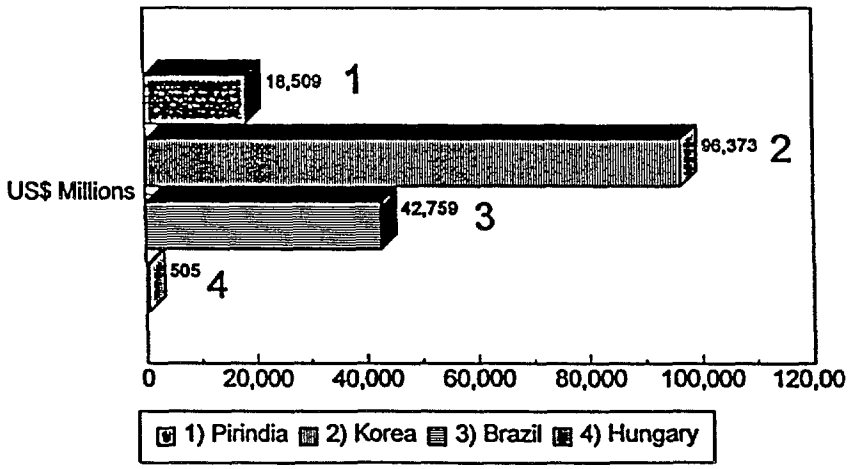
*forecasted

Inflation: Change in Consumer Price Index

Year	% Change in CPI
1990	2314.0
1991	171.1
1992*	24.9

*forecasted

1991 Stockmarket Capitalization: Pirindia and Selected Upper-Middle Income Countries



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Other Stock Market Facts:

Aggregate Price/Earnings Ratios on the Pirindian Stockmarket

1990	- 3.1
1991	-406.0
1992*	38.0

*Projected

Number of Companies Actively Traded on Pirindia Stock Exchange

1990	24
1991	27
1992*	29

*Projected

Pirindia (Part A)--Entry Conditions: Assignment 1 (Team A)

Assignment 1

Team A

You are Mr. Serlin. Mr. Tortolli has asked you to help him and Privatization Committee members think through the issues involved in attracting private sector participation for the provision of water and sewage services in Pirindia. You think that this unsolicited expression of interest is an excellent start. Private sector participation could finally shift the burden of the long-needed operational restructuring from the public to the private sector.

Despite many setbacks, you believe that it was because of your continuous efforts in private sector development that the Ministry recognized the need for private participation in water/sewerage provision. This is your first opportunity to help them think about how they structure private sector participation in infrastructure services. Your memorandum should address the following issues:

1. The GoP seems intent on following suit with previous private participation in infrastructure by privatizing its water provision services . You believe an outright privatization of water and sewage service would be preferable to a concession arrangement or a management contract agreement. Outline the benefits and potential risks of this choice.

2. Outline how the Ministry/Privatization Committee can/should address the concerns raised by the investor group.

3. Based on the letter in Exhibit 1, highlight any information/questions Mr. Tortolli should raise with the Purewater consortium.

4. What issues are of primary concern to the Bank in this initiative?

5. Do you think going ahead with the unsolicited bid is a good idea, or should you push for competitive bidding? In what cases do you think one option might be preferable to the other?

6. What should be the sequence of decisions/reforms?

7. Imagine that the country in question is not Pirindia but Riskistan, a country characterized by chronic political and economic instability, a worthless currency and a weak legal system. How, if at all, would your approach to the above questions differ?

Selected participants will be asked to summarize their PPI options memo for the Privatization Committee.

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Pirindia (Part A)--Entry Conditions: Assignment 1 (Team B)

Assignment 1

Team B

You are Mr. Serlin. Mr. Tortolli has asked you to help him and his government think through the issues involved in attracting private sector participation for the provision of water and sewerage services in Pirindia. You think that this expression of interest is an excellent start. Private sector participation could finally shift the burden of the long-needed operational restructuring from the public to the private sector.

You believe that it was because of your continuous efforts in private sector development that the Ministry recognized the need for private participation in water/sewerage provision. This is your first opportunity to help them think about how they structure private sector participation in infrastructure services. Your memorandum should address the following issues:

1. You believe a concession arrangement for water and sewage services would be preferable to a management contract or an outright privatization. Outline the benefits and potential risks of this choice.

2. Outline how the Ministry/Privatization Committee can/should address the concerns raised by the investor group.

3. Based on the letter in Exhibit, highlight any information/questions Mr. Tortolli should raise with the Purewater consortium.

4. What issues are of primary concern to the Bank in this initiative?

5. Do you think going ahead with the unsolicited bid is a good idea, or should you push for competitive bidding? In what cases do you think one option might be preferable to the other?

6. What should be the sequence of decisions/reforms?

7. Imagine that the country in question is not Pirindia but Riskistan, a country characterized by chronic political and economic instability, a worthless currency and a weak legal system. How, if at all, would your approach to the above questions differ?

Selected participants will be asked to summarize their PPI options memo for the Privatization Committee.

Pirindia (Part A)--Entry Conditions: Assignment 1 (Team C)

Assignment 1

Team C

You are Mr. Serlin. Mr. Tortolli has asked you to help him and his government think through the issues involved in attracting private sector participation for the provision of water and sewage services in Pirindia. You think that this expression of interest is an excellent start. Private sector participation could finally shift the burden of the long-needed operational restructuring from the public to the private sector.

You believe that it was because of your continuous efforts in private sector development that the Ministry recognized the need for private participation in water/sewerage provision. This is your first opportunity to help them think about how they structure private sector participation in infrastructure services. Your memorandum should address the following issues:

1. You believe that the lack of reliable information on the existing operation does not allow the adequate preparation of bidding documents for a concession. You also believe that basic improvements of various technical and financial aspects of the operation should be carried out urgently to increase its attractiveness for private sector participation. Therefore, you are in favor of a management contract, to be followed by a more advanced option such as a lease or a concession contract.

2. Outline how the Ministry/Privatization Committee can/should address the concerns raised by the investor group.

3. Based on the letter in Exhibit, highlight any information/questions Mr. Tortolli should raise with the Purewater consortium.

4. What issues are of primary concern to the Bank in this initiative?

5. Do you think going ahead with the unsolicited bid is a good idea, or should you push for competitive bidding? In what cases do you think one option might be preferable to the other?

6. What should be the sequence of decisions/reforms?

7. Imagine that the country in question is not Pirindia but Riskistan, a country characterized by chronic political and economic instability, a worthless currency and a weak legal system. How, if at all, would your approach to the above questions differ?

Selected participants will be asked to summarize their PPI options memo for the Privatization Committee.

Price Waterhouse LLP

PIRINDIA WATER CASE STUDY (PART B): BID PREPARATION AND EVALUATION OF THE FINANCING PACKAGE

Background[1]

In September 1991, following the Committee's decision on the appropriate mode of private participation, Mr. Serlin identified new opportunities for the Bank's involvement in the private participation process. The Committee unanimously selected the concession model as the preferred form of private participation. Although the option of an outright sale had been seriously discussed, the Committee considered lower tariffs to be the *sine qua non* of private participation. Furthermore, the outright sale of water services would be politically sensitive since many considered this utility to be the supreme public good.

Though the Committee achieved initial consensus on the need for private participation, the Committee's union representatives were concerned about staff cut-backs and severance packages. Moreover, Committee representatives of Piritown's municipal and regional governments were concerned that the lifting of the current service cut-off ban would affect poorer constituents (especially those who were faithful on election day). Also, they wondered whether and how the regional and municipal governments would have a say in the regulation of the private sector operation.

Mr. Tortolli knew he would not be able to gain the Committee's unanimous support of Purewater's investment pre-requisites. Therefore, in early September, Mr. Tortolli informed Purewater of the Committee's interest in the proposal without committing the MPW to any of Purewater's conditions.

Mr. Serlin concurred with the Committee's choice to implement a concession arrangement, primarily because there did not seem to be a positive precedent case for outright privatization. Though the full outcome of the only water privatization case of which he was aware, in the United Kingdom, was still unclear, Mr. Serlin was aware that the initial high tariffs charged in the UK were not well received by local constituents.

As a result of Purewater's unsolicited expression of interest, Mr. Serlin decided that the water works' restructuring could be left to the private sector. The Bank's role in this early stage should be to support sound technical and financial evaluation, facilitate a transparent and ultimately successful bidding process, and to support capacity building in the yet-to-be created regulatory bodies. Consensus building among the parties would be key. Mr. Serlin knew this would be an important task given the tensions that he recognized early on in the process. In the back of his mind, he also remembered how

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the prospect for a water concession in Alandia led nowhere due to the lack of transparency in the bidding and selection processes, a result of the absence of objective, third party technical experts.[2]

Mr. Serlin believed the Bank could be most effective supporting the process by funding bid preparation studies and hiring technical advisors to ensure successful bidding and selection processes. Mr. Serlin would guide the consultants in the development of an expansion plan; preparation of prebidding documents; drafting a concession contract; and devising a regulatory framework. With this technical support, Serlin hoped that Pirindia could draw some important lessons from Alandia.

Bid Documentation and Criteria for Selection

The objective of the concession preparation was to encourage potential bidders to formulate technical and financial proposals to comply with a set of performance targets for coverage of water and sewerage services during the life of the concession. While concession contracts were typically for 20 to 30 years, the consultants recommended the longest period (30 years) in order to allow the concessionaire a reasonable prospect for recouping the investments necessary for meeting the performance targets.

Performance targets were used in lieu of pre-specified capital investments. These targets included such parameters as: percentage of Piritown's population served; percentage of wastewater to receive primary and secondary treatment; percentage of the water and sewerage network to be renovated; and the maximum allowable percentage of unaccounted-for water (see Exhibit 1 for specified performance targets).

These challenging coverage targets were designed to connect approximately 1 million inhabitants every five years to both the water supply and sewerage systems. The Privatization Committee estimated that the compliance with all the performance targets stipulated in the concession contract implied an average investment in the order of US $103 million per year -- more than US $4 billion over the life of the concession. In the first five-year period the investments are even higher -- some US $240 million per year. The latter amounts to more than ten times the MPW's annual investment average over the previous ten years.

In addition to coverage targets, the Committee expected the concessionaire to meet or exceed performance targets for water quality, continuity of supply, effluent quality, sampling frequency, reducing unaccounted-for water, and addressing users' complaints. These would be established and monitored by a regulatory agency charged with overseeing compliance with the concession contract.

Metering was also a key component of meeting performance targets (i.e., reducing unaccounted-for water). Within two years, metering of consumption and the application of the corresponding rates based on consumption would be compulsory for non-residential consumers and for bulk water sales. Metering for residential consumers would be optional.

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[2]Other issues affecting the Alandia concession included municipalities' conflicting jurisdictional claims over the water works and the political ramifications of the concessionaire having to raise the existing low tariff in order to cover operating costs.

Working with consultants, the Privatization Committee would evaluate submitted bids in a two stage process. First, the Committee would evaluate the technical quality of the bids based on the consortium's proposed methodology for meeting the specified performance targets. In a second stage, the Committee would evaluate the financial proposals of only those bidders deemed successful on the technical portion.

The sole criterion that would be used by the Committee to judge the financial proposal was the Constant Adjustment Coefficient (K) which was built into the pricing formula. The K coefficient represented the magnitude of change with respect to the waterworks' existing tariff. The Privatization Committee would specify certain criteria that would justify adjustments to the tariff. No automatic adjustment was permitted on the grounds of exchange rate fluctuation. However, in the event this happened, the concessionaire would have the right to apply for a revision The Committee anticipated two kinds of rate adjustment: (i) "regular", which would be implemented every five years based on the concessionaire's service obligations and five year investment program; and (ii) "extraordinary", which would be initiated when the cost indices of the tariff formula increase by 7% or more. Other criteria which allowed the concessionaire to apply for extraordinary adjustment included new environmental standards, changes in capital expenditure, and changes in tax laws. Both regular and extraordinary revisions would first be subject to review by the appointed regulatory agency.

Bid Preparation and Pre-qualification

The Committee wanted to ensure that participation would be restricted only to those bidders having the technical expertise and financial capability to undertake a concession of such magnitude. The Committee set the hurdles high. Requirements included:

- a $30,000 fee to obtain the pre-qualification document and draft contract;
- the population of largest city currently being served by the operator-partner should be no less than one half million and the total aggregate population served should be no less than 2 million;
- the operator-partner would have annual billings of at least $250 million and minimum equity of $750 million;
- the operator-partner should have at least 25% of equity in consortium; employees should be allocated a minimum of 10% equity ownership.
- a minimum equity investment of $120 million[3]

Selection of the Concessionaire

The Committee sent an investor's prospectus, as well as a draft copy of the concession contract, to over twenty potentially qualified water and sewage service companies in November 1991. Of these, 12 submitted pre-qualification requests which were screened by the Committee. Only four consortia were selected. Following a period of feedback and clarification, the four bidders were invited to submit their final bids in June 1992.

[3]Bidding finalists later estimated that the bid preparation and due diligence processes cost bidding each bidding consortium approximately US$ 8 million.

During the bid evaluation process in September, the Privatization Committee deemed all but one of the four proposals to be technically sound. The one exception, a proposal from the California-based Virtual Water Company was thought to be technologically unattainable. In the Committee's opinion, the other three consortia presented innovative, yet realistic methodologies for achieving the performance targets.

Out of the three remaining bids that passed the test of technical feasibility, the Purewater consortium proposed the lowest tariff and won the concession award.[4] Their bid price was 27% (K = .73) lower than the MPW tariff at the time of the bid.[5] Although the performance targets in the bid were related to service coverage and quality only, Purewater envisaged investments over the 30 year period to be approximately $4 billion (a summary of financial and technical highlights of Purewater's bid can be found in Exhibit 2).

Purewater presented a financing plan to meet the ambitious performance targets. At the time of the bid, the Consortium had lined up short-term financing with a lending syndicate consisting of a group of international commercial banks and their affiliates in Pirindia. Mr. Malcolm Goodberry, a vice-president at Unibank, the lead bank in the consortium, represented the group during negotiations with Purewater. The Unibank syndicate agreed to provide Purewater with a US $ 200 million loan, scheduled to mature on the fifth anniversary of the facility agreement. Although the banking consortium had initial reservations about Purewater's ability meet specified performance targets, especially in the absence of secured long-term financing, the lenders provided the sponsors with this short-term financial backing. The Unibank group was encouraged by: (i) Purewater's potential to secure long-term loans from the International Finance Corporation and possibly one other multilateral organization; and (ii) the project's anticipated financing structure, to consist primarily of equity contributed from operations (see financing structure Section 3b).

Working out the Details

As discussed, once the bidders met the specified technical criteria, the "K" factor in the financing proposal became the single most important criterion upon which the award was based. While preparing the bid documents, Mr. Serlin advised the Committee to keep the criteria objective and quantifiable. Although the stand-alone tariff rate criterion facilitated Purewater's selection, the Committee and Mr. Serlin needed to re-examine other, less-tangible aspects of the financing package which might resurface during the negotiations phase prior to the signing of the contract.

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[4]Of the three bids submitted, all had very similar investment programs.

[5] The difference between Purewater's and the runner-up's "K" was minimal (one hundredth of a point). The third place bidders bidder submitted a "K" of .90.

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Exhibit 1
Summary of Performance Targets Found in Bid Documentation

A. PERCENTAGE OF PIRITOWN'S POPULATION WITH POTABLE WATER

TIME FRAME	TOTAL POPULATION (MILLIONS)	PERCENTAGE COVERED	TOTAL COVERAGE (MILLIONS)
Current: 1991	8582	70%	6.0
Year 5	8949	81%	7.2
Year 15	9603	95%	9.1
Year 30	10253	100%	10.2

B. PERCENTAGE OF PIRITOWN'S POPULATION WITH SEWERAGE COVERAGE

TIME FRAME	TOTAL POPULATION (MILLIONS)	PERCENTAGE COVERED	TOTAL COVERAGE (MILLIONS)
Current: 1991	8582	58%	5.0
Year 5	8949	64%	5.7
Year 15	9603	84%	8.1
Year 30	10253	90%	9.2

C. NETWORK RENOVATION TARGETS (CUMULATIVE PERCENTAGE)

	Water	Sewerage
Year 0	0%	0%
Year 5	9%	2%
Year 10	12%	3%
Year 20	28%	4%
Year 30	45%	5%

D. UNACCOUNTED-FOR WATER

Year 0	50%
Year 5	37%
Year 10	34%
Year 20	28%
Year 30	25%

A. PROPOSED CAPITAL STRUCTURE

- The proposed capital structure conforms with the MPW's US $120 minimum capital requirement. The leading stakeholder include Purewater AG and participating consortium members: Green River, Inc., Eau Nationale, and Walton Water.

Broken down as follows:

Consortium Member	Pct. Equity Participation
Purewater AG	***25.3***
Greenriver	20.7
Eau Nationale	12.6
Walton Water	10.8
Pirifin	8.1
Piribank	8.0
Smithton	4.5
Employees	***10.0***

Bold represents Purewater Consortium Members

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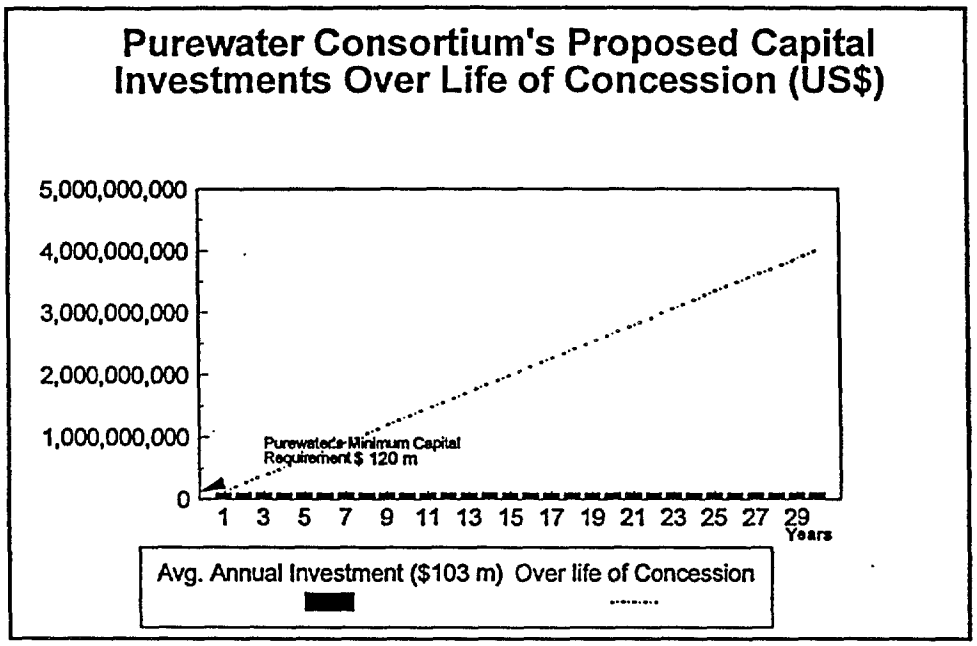
B. PROPOSED INVESTMENT SCHEDULE TO MEET PERFORMANCE CRITERIA

This graph illustrates the anticipated investment schedule over the 30 year life of the concession. By the end of the year 30, the Consortium will have invested a total of US $ 4 billion in waterworks and sewerage services. By the end of year 2, the Consortium will conform with the US $120 million minimum capital requirement.



Breakdown by 5-Year Investment Period (US$ Millions)

Breakdown by Category	Year 1-5	Year 6-10	Year 11-15	Year 16-20	Year 21-25	Year 26-30
Subtotal Water[6]	474	324	250	207	156	127
Subtotal Sewerage[7]	551	376	690	351	304	135
Others	59	33	24	16	20	12

[6]Includes: Water treatement, pumpstation and underground mains, and water system

[7]Includes: sewerage system, system plant, sewer and pumping stations. Over the 30 year concession, 86% of investments will be devoted to expansion, 11% to improvements and 3% for emergency provisions.

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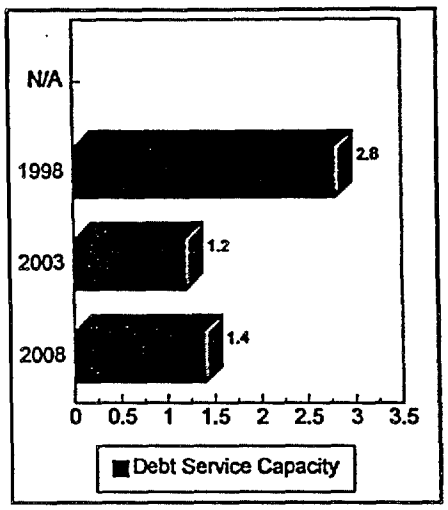
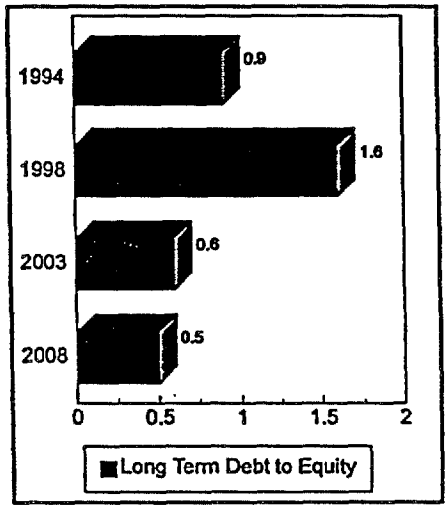
C. PROJECTED FINANCIAL STRUCTURE

The following tables illustrate the role of debt and equity in the future financial structure of the Purewater Consortium. For example, by the end the end of year 15, the Consortium will rely primarily on cash from operations (achieving a .4 debt-to equity ratio in 2008), down from an anticipated high of 1.4 in 1998). With regard to debt service ratio (long-term debt/revenue), coverage is expected to be best between 1998-2003. Section D discusses existing and potential sources of debt and equity finance.





D. EXISTING AND POTENTIAL SOURCES OF PROJECT FINANCE

The Consortium anticipates that the project's portion of equity financing will come from internal cash generation from operations, following an initial equity injection of US$ 120 m. . It is expected that as much as 50% of the concession's investment funding could be raised this way. The following is a summary of existing and potential sources of debt and equity finance for the project.

Short to Medium Term Financing

The Purewater Consortium was required to secure US $200 million in medium term debt from a six-member banking syndicate led by Unibank. The loan has a maturity of five years and could provide 60% of the capital needed to meet the investment requirements foreseen for the first three years (US $ 333 million expected to be invested by the end of the concession's third year).

The syndicate is composed of two sub-groups, with Unibank coordinating the loan. The first subgroup, contributing **$112** million is composed of Unibank, Capital Corporation and Bancare. The second syndicate, contributing $88 million, is composed of the Pirindian affiliates of four international commercial banks.

Long-Term Financing

Although long-term finance has not yet been secured, the Consortium is confident that the upturn in Pirindia's economic and financial markets will allow the Consortium to raise long-term finance, both internationally and domestically, to meet the 30 year performance targets.

The Consortium has learned that the MPW initiated contact with the International Finance Corporation (IFC), and possibly one other multi-lateral lender, about a potential long term loan or equity injection to support capital investments. Based on IFC's record, Purewater is confident that this source of long-term finance will be forthcoming. By increasing investor confidence, this would greatly facilitate acquisition of other sources of long-term international capital.

Below are anticipated types of long-term finance that could be raised during the life of the project:

IFC (8-12 year loan)	**$250 million**
Other Multilateral (potential 20 year loan/guarantee)	**98 million**
International Equity Markets (eg., ADRs)	**$100 million**
	448 million

Other options for long-term financing might include:

- Private Placements (selling a minority share to another operator)
- Yankee Bonds (dollar-denominated bonds issued in US)
- Medium Term Notes (local bonds maturing in 2 to 10 years)
- Local Sources (pension and insurance funds)

E. TARIFF REDUCTION AND MODIFICATION

Through its efficient management know-how, as outlined in technical proposal, Purewater Consortium is prepared to support the aforementioned performance targets and investment schedule with a new tariff offering a 27% discount (K=.73) on the MPW's current rate.[8]

In addition to the stipulated 5-year tariff review that coincides with the Consortium's 5-year investment plan, the new rate will be subject to annual revision, taking into account annual changes

[8] At the time of bidding the water rate was $.66 per cubic meter for households with both water and sewerage connections, and $ .33 per cubic meter for households with water connection only. Metered rates are equivalent to half the rate for unmetered connections (the first 15 cubic meters per month consumed are free).

to an agreed-upon price index and necessary revisions to the capital investment program. Both the five year and annual tariff revisions will be arrived at through negotiations with the regulatory agency.

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Pirindia (Part B)-- Bid Preparation and Evaluation of the Financing Package:

Assignment 2

Mr. Serlin-World Bank

Purewater has submitted a very aggressive K factor and investment plan. Taking into account the country environment, as well as Piritown's water and sewerage needs, what are the strengths and weaknesses of the bidding process and Purewater's proposal from the World Bank's point of view?

Questions for Discussion:

Bidding Process

1) Under what circumstances, if any, would it be better to proceed with an unsolicited bid?

2) Should the pre-qualification criteria have been set differently?

3) What are the merits of a two-stage bid evaluation process, particularly when this involves difficult technical issues?

4) Technical proposals being equal, was the tariff reduction criterion ("K" factor) alone sufficient information upon which to evaluate the financial proposal? What other financial criteria/yardsticks could have been used?

Purewater Financial Proposal

5) Based on Exhibit 2, evaluate the strengths and weaknesses of the Purewater proposal with regards to a) cash flow forecasts and debt coverage, b) long term financing arrangements

6) What products might the Bank have to offer either the concessionaire (e.g., temporary financing of deficiency payments for not raising K given a change in economic indices) or the Government (*e.g*, performance guarantees) ?

Pirindia (Part B) – Bid Preparation and Evaluation of the Financing Package:

Assignment 2

Mr. Otto-Purewater

From Purewater's point of view, what are the strengths and weaknesses of the bidding process? Purewater has submitted a very aggressive K factor and investment plan. Prepare to defend your own proposal and the financing arrangements.

Questions for Discussion

1) Under what circumstances, if any, would it be better to proceed with an unsolicited bid?

2) Should the pre-qualification criteria have been set differently?

3) What are the merits of a two-stage bid evaluation process, particularly when this involves difficult technical issues?

4) technical proposals being equal, was the tariff reduction criterion ("K" factor) alone sufficient information upon which to evaluate the financial proposal? What other financial criteria/yardsticks could have been used?

Purewater Financial Proposal

Based on Exhibit 2, evaluate the strengths and weaknesses of the Purewater proposal with regards to a) cash flow forecasts and debt coverage, b) long term financing arrangements

What, if any, products or guarantees should Purewater seek from the Bank (e.g, could the Bank finance deficiency payments to compensate Purewater for not revising the tariff over a specified time)?

Pirindia (Part B)--Bid Preparation and Evaluation of the Financing Package:

Assignment 2

Mr. Tortolli -Privatization Committee

Purewater has submitted a very aggressive K factor and investment plan. Taking into account the country environment, as well as Piritown's water and sewerage needs, what are the strengths and weaknesses of the bidding process and Purewater's proposal from the Privatization Committee's point of view?

Questions for Discussion:

Bidding Process

1) Under what circumstances, if any, would it be better to proceed with an unsolicited bid?

2) Should the pre-qualification criteria have been set differently?

3) What are the merits of a two-stage bid evaluation process, particularly when this involves difficult technical issues?

4) Technical proposals being equal, was the tariff reduction criterion ("K" factor) alone sufficient information upon which to evaluate the financial proposal? What other financial criteria/yardsticks could have been used?

Purewater Financial Proposal

5) Based on Exhibit 2, evaluate the strengths and weaknesses of the Purewater proposal with regards to a) cash flow forecasts and debt coverage, b) long term financing arrangements

PIRINDIA WATER CASE STUDY (PART C) : POST-AWARD NEGOTIATIONS

Background[1]

Following the award of the concession, the key players geared up for the final negotiations prior to the signing of the contract. When the negotiations finally opened in mid-December 1992, the players had a firm understanding of how the range of financial and technical alternatives on the table could help or hinder their agendas. Although the level of the tariff discount ("K" factor) provided an objective gauge for the selection of Purewater, less tangible issues needed to be worked out through negotiation.

Although the attached strategy will serve as a guideline for setting your agenda, you are free to bring up other issues which may affect your party. In preparation for the actual negotiations, you must first prioritize your agenda and decide which points may be compromised and which ones may not.

You will prepare the pre-contract negotiations from the viewpoint of either Mr. Tortolli and the Privatization Committee or Mr. Otto and the Purewater Consortium

[1]This case study was developed by *Price Waterhouse LLP* for the Private Participation in Infrastructure (PPI) Principles and Techniques Seminar given for the World Bank Group. The case is meant to serve as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business scenario. The authors of the case wish to thank the World Bank's PPI Group for obtaining information necessary to write the case. Sources for this case include World Bank and concessionaire analyses of the actual case upon which Pirindia is based. Names in the case have been fictionalized for teaching purposes. Further use of the case is prohibited without permission from *Price Waterhouse LLP* and the World Bank's PPI Group.

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Pirindia (Part C)--Negotiations: Agenda 1

Mr. Tortolli and the Privatization Committee (representing GoP)

By establishing the tariff discount as the key selection criterion, the Committee objectified and expedited the bid evaluation process. Yet Mr. Tortolli knew that addressing those less-quantifiable issues, established in both the draft concession/bidding documentation and Purewater's response, would not be as straightforward. As spokesman for the Committee, Mr. Tortolli mediated the Committee's own internal disputes (i.e., pressure from labor union representatives, and municipal and provincial governments who wanted equal footing with their federal counterparts), while at the same time sought external guarantees which might ensure the security of Pirindia's most vital sector. With the Committee's full support, Mr. Tortolli enumerated the GoP's key discussion points as they appeared in the initial draft contract.

- **The Regulatory Entity.** Tariff regulation for Piritown's water and sewage sector would be under the supreme authority of WATREG, a quasi-independent institution vested by the authority of Parliament. WATREG's Board of Directors will be appointed by the MPW. The Ministry of Health would be put in charge of monitoring water quality.

  To rapidly build the technical and administrative capacity of WATREG's staff to monitor, report on, and audit Purewater's performance, Mr. Tortolli is intent on initially utilizing the international expertise of the UK-water consulting company of Allen, Flag & Associates, for a 12-month period. He also intends on staffing WATREG with some of the former staff of the previous state water works. Mr. Tortolli is confident that the combination of international auditing expertise and thorough familiarity with the local conditions will give WATREG a running start in performing its regulatory duties.

  Mr. Tortolli held the view that WATREG's annual budget should be raised by levying a fee on each customer's water bill, as opposed to annual allocations from the government's federal budget.

- **Compliance with Performance Targets.** The performance targets established in the bidding documents are extremely ambitious, particularly with regard to population coverage and equipment rehabilitation (see Case B). The Committee holds that Purewater must stick to its proposal, especially in light of an aggressive tariff structure and the absence of secured long-term financing.

  For this reason, the Committee insists that Purewater give a performance guarantee, such as an annual performance bond, or deposit. This performance guarantee could be redeemable by the MPW in the event that the concessionaire's performance targets are not met.

- **Financing of Redundancies.** If current employees are forced to leave as a result of the concession, severance and retirement payments could be extremely burdensome to the state. The concessionaire will therefore be responsible for financing a minimum of 90% of worker severance schemes and early retirement programs.

- **Environmental Liability.** Due to past dumping of untreated sewage, portions of the Ongo River are highly contaminated and could have adverse effects on Piritown's drinking water supply. It should be the responsibility of the concessionaire to coordinate and to finance the river's clean-up as part of its capital investment campaign to improve water quality. The concessionaire will comply with all existing and future environmental directives and regulations as they pertain to water.

- **Rate Adjustment.** Tariff rate adjustments (i.e, of the proposed "K" factor) may only occur after approval from WATREG. Rates will automatically be reassessed every five years, but may be modified according to extraordinary circumstances such as the inflationary impact on the water works' price index (based on a "bundle" of input costs and consumer prices) and other reasons. WATREG will determine the nature of extraordinary circumstances.

- **Termination of Contract.** In the event of concessionaire default or negligence, the contract may be terminated at any time by the WATREG and the MPW. At that time, the performance bond will be called and additional compensation for damages may be claimed through an administrative court.

Mr. Otto and the Purewater Consortium

The euphoria arising from the Consortium's (the concessionaire's) winning bid soon faded when the team realized that their bottom line could be significantly affected by the outcome of the negotiations prior to the signing of the contract. The Consortium agreed that the following topics must be addressed if their operating, commercial, and regulatory risks were to be minimized.

- **The Regulatory Entity.** Based on extensive operating experience in several developing country environments, Mr. Otto knew that transparency, credibility, legitimacy and administrative efficiency would matter most in establishing a sustainable regulatory regime for the sector which, in turn, would be a crucial factor to the company's success.

  For this reason, he wished to ensure that there were sufficient checks and balances to curb the entity's power *vis à vis* the concessionaire. The regulatory framework should provide a system of recourse, with an adequate appeals process, for contractual disputes. All contractual disputes should be resolved through mediation; a process whereby the concessionaire and regulatory body agree upon a third party who proposes a resolution to the problem in question. In the event that mediation leaves the dispute unresolved, the two parties will submit the decision to arbitration performed by a mutually acceptable third party.

  Mr. Otto was concerned that the majority WATREG's staff would be drawn from the former state-owned enterprise. A second potential problem area might arise from the unfamiliarity of monitoring the concessionaire. Based on experience in other countries, Mr. Otto knew of the temptation to adopt a command and control attitude on the part of the regulator, quickly souring the relations between the two parties.

- **Compliance with Performance Targets.** The concessionaire will make its "best efforts" to conform with the proposed performance targets. However, the concessionaire's long-term investment commitments, in addition its the minimum capital requirement, should constitute adequate financial guarantees that the project will be completed successfully. The concessionaire's professional reputation and experience should provide further assurance that the targets will be met.

  The concessionaire must have as a guarantee that water and sewage services may be cut off in the event of non-payment from the customer -- a reasonable request given that consumer prices will drop due to the reduced tariff.

  The time frame (2 years) which the GoP set for the installation of non-residential meters is overambitious. The concessionaire should first be permitted to gauge elasticity of demand based on meter installation. However, Mr. Otto was concerned that the Government might decide to change the investment in water supply and sewage facilities mid-stream, thereby possibly affecting the overall profitability of the concession. He was wondering whether it would be advisable to include specific details of a 30-year investment program in the concession contract.

- **Financing of Redundancies.** The concessionaire is prepared to finance up to 10% of costs related to labor displacement resulting from the concession's implementation. The concessionaire will provide additional assistance by offering free advisory services on employee re-training and voluntary retirement programs.

- **Environmental Liability.** The concessionaire is aware of the existing contamination of the Ongo river resulting from the dumping of untreated sewage. The Purewater Consortium will not be liable for breaches of environmental regulations occurring before the signing of the contract. Nor should the Consortium be responsible for complying with modifications to environmental standards occurring during the life of the concession, unless proper compensation is provided for.

- **Rate Adjustment.** The economic climate of Pirindia is still relatively uncertain. Therefore, frequent (i.e., annual) reviews of the economic indices to which tariffs are linked should take place. The concessionaire will be ensured that marginal costs will be fully recoverable throughout the life of the concession. Based on changes occurring in the economic indices and/or in the investment plan (e.g., 5% or more), the concessionaire may at any time request a rate hike from the regulatory entity.

- **Termination of Contract.** The concessionaire will not be liable for any failure or delay in complying with its obligations under the contract to the extent that such failure has been caused by a political or physical *force majeure*. In the event of contract termination due to political *force majeure*, the concessionaire shall be rightly compensated by the GoP.

PIRINDIA WATER CASE STUDY: EPILOGUE

Outcome of the Negotiations as Reflected in the Final Contract

Project Timetable:

ACTIVITY	ANTICIPATED DATE	ACTUAL DATE
Commencement	June 1991	June 1991
Initial Regulatory Framework	December 1991	June 1992
Prequalification	(Not envisaged)	January 1992
Call for Bids	December 1991	June 1992
Bid Opening	April 1992	September 1992
Award	June 1992	December 1992
Contract/Negotiations	August 1992	March 1993
Transfer	September 1992	May 1993

The following are excerpts from the May 1993 contract which reflect the outcome of previous negotiations:

The Regulatory Framework

In accordance with the Central Government's regulatory decree, the regulatory agency (WATREG) will be an autonomous, self-sustaining entity to ensure the quality of water and protect consumers, as well as monitor the compliance with the existing norms and the provisions of the concession contract. Its Board of Directors will consist of 6 members – two representing each of the three entities involved: the Central Government, the Municipality of Piritown and the Province of Piritown. WATREG will be financed by consumers. Its annual budget of $8 million will be collected by the concessionaire through billing, and will represent a user surcharge of 2.7% of the water and sewerage bill. The first employees to be hired will consist of ex-MPW waterworks' employees. Later, a competitive recruitment process will take place.

WATREG will conduct itself as an independent agency, and will render definitive, final decisions on all contractual disputes. Protests on behalf of the concessionaire will be judged individually and, if deemed tenable, will be re-submitted to arbitration. WATREG will have unrestricted access to waterworks' facilities and financial statements at all times.

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Performance Bond

The concession requires the remittance of an annual security deposit, or bond, that is renewable over the entire life of the thirty year contract. This deposit, set at $150 million for the concession's first five year period, is intended to guarantee the successful execution of the contract and performance targets therein. Decision's on the bond's application and renewal will be rendered by WATREG.

Environmental Compliance

Throughout the life of the concession, the concessionaire will be responsible for adhering to the water quality and effluent standards set forth in Pirindian law through MPW and WATREG directives.

The concessionaire will not be held responsible for environmental damages occurring before the signing of the concession. Nor will the concessionaire be retroactively liable should environmental directives be modified during the life of the concession. Punishment for breaches of environmental law will be determined by WATREG in conjunction with Pirinida's judicial system.

Status of Existing Non-Core Assets

A residual MPW waterworks organization will be created to oversee the liquidation of those non-core assets falling under the auspices of the waterworks but that will not be transferred as part of the concession. The concessionaire will not be responsible for the management these assets.

Rate Structure, Rate Revision and Customer Subscription

The adjustment coefficient (K) will apply to the rate structure that is in effect on the date the contract is signed. The rates will be reassessed every five years, based on the next five-year updated investment plan and updated estimates of expenditures.

Changes in rates will result from:

- changes to the initial legal or regulatory framework (e.g., environmental standards, tax law)
- negotiated modifications to the investment program
- changes in the economic indices used to build the cost function (salaries, energy, etc.)

Before any rate changes occur, the concessionaire must obtain approval from WATREG. A decision will be made only after a detailed assessment of the impact on costs due to these changes is submitted. With regard to the economic indices, a change in the rate structure will be approved only if the price index leads to cost modifications in excess of 7%.

The concessionaire will be permitted to cease water services should non-payment occur for two consecutive billing periods.

Termination of Contract

The financial considerations of the contract's termination (except by expiration) rely on the general principal of transferring the concessionaire's assets over to the public authority for an amount equal to their net book value at the date of termination. This net book value will be adjusted up or down

depending on the nature of the termination:

- if the contract is terminated by buy-out or by default of the public authority, a compensation for loss of earnings, computed as the sum of the reported net earnings over the previous five-year period, must be paid to the concessionaire;

- if the contract is terminated by default of the concessionaire, the performance bond shall be called by the public authority, and, if need be, additional compensation for damages will be claimed, via an administrative court, by the public authority;

- termination in case of *force majeure* does not result in any form of compensation to either party.

Selected Results of the Concession After One Year

The following are selected descriptions of Purewater's (the concessionaire or the operator) performance after one year.

Relations with WATREG

After the first year, the relationship between the concessionaire and the Regulatory Agency seemed somewhat tense due to contention over the operator's independence *vis à vis* the regulator, the frequency and quality of reporting financial and operating data, and the reliability of available information. The concessionaire raised concerns about the summary powers of WATREG with regard to contract clauses, particularly rate revisions and the conditions for calling the performance bond.

Reduction in Staff

Of the more than 7,000 employees that were transferred by the MPW to Purewater at the beginning of the concession, a total of 1,300 employees took advantage of a voluntary early retirement program. The government financed up to $ 38 million in severance benefits before the transfer occurred. Shortly after operations were transferred, another 2,300 employees left the company through a similar program initiated and financed by the concessionaire. The number of employees was therefore reduced by more than 50% in a period of six months, with no adverse effects observed.

Performance Targets, Operating Efficiency and Improvements

For the first time in many years, the city of Piritown did not experience water shortages during the peak summer demand months; this was achieved by operating its largest plant at almost 20% capacity higher than before (2.7 million m^3/day in March 1994).

Public expectations with regard to service also increased. This prompted WATREG to request a change in the sequencing and composition of the investment program, including: accelerating the connections to the water supply system, while postponing some of the originally planned investments in wastewater treatment.

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The water quality achieved at both production plants exceeded that of previous years, as a result of improvements in the quality of chemical products utilized in the treatment process. However, both plants experienced a higher hydraulic load. The latter appeared to result from a series of low-cost rapid improvements.

At the concessionaire's second wastewater treatment plant, in the southwest of the city, the secondary units (large trickling filters) were operated successfully after simple mechanical modifications were made. Prior to the transfer, the filters had not been operated since their construction in 1987. These modifications substantially improved the effluent quality.

Approximately 40,000 water meters were installed for large, non-residential consumers. Moreover, 125 km of water distribution pipes and 2,600 valves were rehabilitated or renovated. More than 1,000 km of sewerage collection pipes underwent cleaning.

Despite the aforementioned improvements, interruptions in service continued to occur. These were due to: (i) unexpected power outages and (ii) planned repair works carried out by the concessionaire. Furthermore, many operating wells for potable water exceeded the allowable nitrate concentration of 50 mg/l (a small percentage of wells even exceeded 100 mg/l). The concessionaire and WATREG agreed that the removal of nitrate would be given priority. Wells would either be replaced or new surface water supply systems would be installed. Nevertheless, for the first time a majority of the customers were satisfied with the concessionaire's services.

Investments and Financing

The concessionaire did not make any substantial investments during the first year. However, as mentioned above, the concessionaire made a large number of small investments to replace and rehabilitate components. By the end of 1993, approximately $60 million was injected into the operation, corresponding to half the contractual minimum ($120 million) and three times the level of average annual historical investment. By the end of 1994, US$ 113m had been committed.

Although no long term financing was obtained by the end of the first year,funding was in the process of being secured from IFC and commercial banks, as well as from internal cash generation from operations. As stated in their proposal, the concessionaire believed to contribute half of its internal cash generation to investment funding. However, a net income loss of approximately $25 million was experienced – largely a result of the outlays needed to finance the early retirement plan.

Tariff Rate Revision

Approximately one year after the new concession began, WATREG granted the concessionaire a 13.5% increase to the maximum allowable tariff. The rate hike represented a compromise from the initial 17.5% hike proposed by the concessionaire. The "K" factor thereby increased to 86.5 from 73 when the concession began.

The increase was purportedly due to the advancement of investments to increase coverage targets and to replace nitrate-contaminated wells over the next couple of years. WATREG therefore requested that the investment program be advanced and accelerated. Moreover, higher labor costs were incurred beyond the inflation formula included in the contract (see Epilogue A for the contractual provision).

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CESKE TECIN: PRIVATIZATION OF MUNICIPAL SOLID WASTE SERVICES THROUGH A LEASE CONTRACT (Entry Conditions)

Introduction[1]

In the summer of 1990, the city of Ceske Tecin in the Czech Republic, announced its intention to privatize the city's Technical Services organizations, which were in charge of providing municipal services. The city's solid waste services were highly unreliable and poorly executed. Garbage collection was insufficient, with trash pick up occurring once every two to three weeks. Solid waste disposal often involved illegal dumping resulting from a lack of adequate landfill space and funding to construct new ones. Demand for improved services far exceeded Ceske Tecin's budgetary capabilities to meet those needs for the city's 28,000 inhabitants. Ceske Tecin officials chose to turn to the private sector for financial relief, contemplating privatization through a lease contract arrangement to transfer Technical Services equipment to newly-created, local private firms.

Ceske Tecin officials anticipated that Technical Services employees would come together to form most of the new local private firms. Foreign firms were excluded from participating. The government relied on the fact that the Technical Services employees possessed the best operations know-how and experience in working in the city to provide the service.

In the fall of 1990, Mr. Cerny[2], a Technical Services manager working in solid waste disposal services, was interested in providing the service for solid waste container collection and disposal. He believed that he possessed the skills needed to properly manage and provide the service, and the market was such that few knew how operations worked as well as how the city routes ran. Prior to submitting his proposal, he decided to conduct a careful evaluation of the current operational environment and the government's expectations of him as a private provider of the service. Then, he would decide whether and how to bid on these services.

Technical Services Organizations

Technical Services organizations delivered municipal services in the Czech and Slovak Republics. These organizations typically provided five to ten direct (e.g. curbside trash pick-up) and indirect (e.g. road maintenance) services. The structure of the Technical Services organizations often involved a series of separate units, with a single director and internal heads responsible for individual services.

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[1]This case study was developed by *Price Waterhouse LLP* for the Private Participation in Infrastructure (PPI)-Principles and Techniques Seminar given for the World Bank. The case is meant to serve as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business scenario. Sources for this case include various project reports on the privatization of solid waste management services in Czechoslovakia written by Price Waterhouse LLP. The authors of the case wish to thank Ms. Margarita Fernandez of Price Waterhouse LLP and Mr. David Agnew for their editorial and informational contributions. Further use of the case is prohibited without permission from *Price Waterhouse LLP* and the World Bank's PPI Group.

[2]Names and positions have been fictionalized for the purpose of case writing.

The range of service provided depended on the needs of the city's inhabitants. Some of the services included:

- street cleaning and repair;
- city landscaping and greenhouse operation;
- garbage collection and disposal;
- streetlighting;
- cemetery operation and maintenance.

A Greater Role for the Private Sector in the Economy

Prior to the fall of the communist regime, municipal governments in the Czech and Slovak Republics were extensions of the central government. Decision-making authority flowed from the top downward. Local municipalities relied greatly on federal grants and subsidies to fund solid waste collection and disposal and other municipal services. The Ministry of the Interior in each Republic had oversight responsibility for funding the Technical Services organizations. The central government owned all Technical Services assets, not the municipality in which the Technical Services organization operated.

In the post-communist Czech and Slovak Republics, greater financial and budgetary responsibilities accompanied the devolution of authority to municipal governments to manage and meet local needs. Federal funds to the municipalities declined more rapidly than the increases in local revenue. The growing federal budget difficulties removed the primary source of revenue for local governments.

The Act Concerning Communities and the Community System was passed September 4, 1990, handing over the responsibility of providing municipal services to local governments. The law presented fundamental provisions regarding communities, their exclusive jurisdictions, taxation and budgeting, and their structure and decision making processes. The Act specifically defined the communities responsibility for "administering and maintaining and removing home waste and its harmless liquidation."

At the same time of this transfer of authority to the municipalities, a heightened public concern over environmental damage led the Czech and Slovak Republics to create ambitious standards for solid waste disposal. In addition to poor quality service in solid waste disposal and collection provided by Technical Services, the lack of adequate landfill space remained an obstacle to improving the quality and efficiency of solid waste management operations. Many landfills began to approach their maximum capacity, while stricter environmental regulations and standards forced many landfills to shut down. Such obstacles and lack of adequate financing capabilities led the municipal governments to increase the rates charged for disposal services, at a time when citizens, seeing their purchasing power shrink, were least willing to pay higher prices for such services.

Opening doors for privatization of municipal services

Financial urgency, limited government revenue and environmental concerns combined to make city officials receptive to new approaches for delivering local services, which included expanding the role of the private sector. Citizens expressed little opposition to privatization since the current operations were expensive and service levels were poor.

At the time that Ceske Tecin officials decided to privatize its Technical Services in 1990, no legal framework was established to guide the incorporation of private sector participation. The following legislation, however, was being considered and debated to provide the legal framework necessary to facilitate privatization efforts by the municipal governments. Ceske Tecin would serve as a model to the realization of the following laws:

a. the **Law on the Conditions of Transfer of Property of the State to Other Persons (The Privatization Law)** would outline the conditions for transferring state assets to other legal and physical persons. The provisions of the privatization law stated that state assets could be transferred from a state property fund (where state assets were placed upon approval of the privatization project) to the private sector in any of the following ways: formation of a joint-stock or other commercial company; the outright sale of state assets to private entities; or the transfer of state assets to be privatized to local municipalities (leasing);

   Since the central government owned the Technical Services assets, municipalities and communities would have to request the transfer of ownership of Technical Services equipment in order to later lease it to private contractors. Otherwise, the central government would incorporate the equipment into a list designated for liquidation. The municipality would have to apply for this right from the Ministry of Privatization. These measures would be reinforced by the **Czech and Slovak National Council Acts on the Collection of Laws on the Transfer of State Property.**

c. the **Waste Disposal Act** of 1991 would define the rights and responsibilities of parties (generators, collectors or disposers of waste, and regulators) involved in all areas of solid waste operations. The Act aimed to protect the environment by bringing solid waste management practices in the Czech and Slovak Republics closer to world industry standards and defining duties and responsibilities for state administrative bodies on behalf of the community. The Act would grant the Ministry of the Environment and its corresponding municipal agencies the authority to approve and oversee all facilities engaged in solid waste collection and disposal activities. In addition, the Act would give the Czech and Slovak Republic legislatures responsibility for developing implementation instructions and regulations governing specific activities of solid waste operations.

The Ceske Tecin model for privatization

The solid waste services designated for privatization were the following, each to be delegated to a single private supplier:

- household (110-liter solid waste container) collection and landfill operation;
- commercial/industrial (1100-liter solid waste container) collection.

The city designated also six other services for privatization:
- cemeteries management;
- street and public premises cleaning;
- general maintenance and street lighting;
- city landscaping and greenhouse operations;

- local streets maintenance, including winter street maintenance (snow removal);
- miscellaneous operations (e.g. parking garages, campgrounds, swimming pools).

Technical Services employees expressed little opposition to privatization. City officials had guaranteed these employees at least a chance to keep their jobs after privatization under the new private firms, though the privatization model had not built in any such provisions. The total number of Technical Services employees in Ceske Tecin by 1990 was 178, with 23 as administrative clerks.

The privatization model developed by Ceske Tecin officials stipulated the following conditions:

- Ceske Tecin would retain ownership of the municipal services but agreed to lease the equipment to the newly-created private firms in exchange for assurances of continued service and compliance to agreed upon prices. The price charged to citizens for the service would be a pre-agreed upon price determined between the city and private contractor at the time of signing the lease contract. Ceske Tecin would use the revenue from the rental of equipment to cover annual overhauls.

- Ceske Tecin would grant exclusive equipment leasing contracts, averaging 5 years, to the private contractors for the designated public services. These transitional monopolies would serve as an incubation period for the creation of a competitive private sector. The new private contractor would receive full monopoly rights over the service for the duration of the contract. At the end of the contract period, other private individuals/firms would be allowed to competitively bid for the contract to service the city. The new private provider would again maintain monopoly rights over the service for the duration of the contract. If the size of the city permitted and enough equipment was available, the city would be divided into service sections allowing more firms to enter into the service for different parts of the city. However, in the case of Ceske Tecin, the city was too small and equipment limited to divide the city into separate service units.

- The selection of the private contractor would be based on perceived technical qualifications. The selection committee would require each interested party to describe in detail its technical capabilities. Detailed financial and operational plans would not be reviewed until after the selection of the contractor. No official proposal format had been developed.

- Only private, Czech-owned firms would be allowed to provide the services. Foreign firms were excluded from participating.

The chosen private contractor could lease any of the service equipment that it needed to provide the service. The lease contract would also permit the private contractor to deliver the service to other customers with the equipment, but the contractor could not lease or sell the equipment to any one else. Once services had been performed in Ceske Tecin, the private contractor could perform the same services in neighboring villages in which that particular service was not provided. In addition, local factories could contract the firm to provide the service for them. By leasing with such restrictions, the government would provide the private firms with a flexible operating arrangement while protecting the city from potential service interruptions.

Prices charged on rented equipment would be based on the depreciated value of the equipment, set by the Czech government. The depreciation rate would average annually 13% of the present value of the equipment.

For some services such as street cleaning and maintenance of public lighting, the private contractors would have to invoice the city in order to receive payment. In the case of garbage collection, the private contractor would receive payment directly from the consumers. Consumers would be billed based on a detailed calculation of time and material costs (cost-based payment method). Ceske Tecin would authorize how many times garbage must be cleared.

The government of Ceske Tecin would pay for major equipment overhauls (on an annual basis usually), while the private contractor would pay for any other standard repairs or improvements. However, the differences between a major overhaul or standard repair were not well defined. The private contractors would also have to replace equipment from their own budgets when the equipment eventually breaks down beyond repair. The private contractor would pay for any new machinery or equipment needed to provide the service. The city would not monitor the amount of use or the maintenance record of the leased equipment.

The city could terminate the lease contract for any of the following five reasons:

- if the private contractor lost his entrepreneurial license[3] from failure to pay the license fee;
- if the private contractor died (an heir may take over within 30 days of death);
- if the private contractor failed to pay for the rented equipment;
- if the quality and timeliness of work was found to be unsatisfactory; and
- if overall performance output was not sufficient.

The private contractor could terminate the contract on any of the following three conditions:

- if the city did not pay the invoices billed to it by the contractor for service;
- if the city did not maintain its agreements in the contract (ie. to pay for major overhauls); and
- if the private contractor became seriously ill or needed to move away.

The private contractor would have the opportunity once a year to propose changes in the contract regarding service levels and rates charged. The city could not amend, however, the contract on its behalf.

Making a Decision

Mr. Cerny was thinking of bidding on the lease contract for the 1100-liter solid waste container operations. Though he believed he was technically qualified to best operate the service, Mr. Cerny would also be competing for the service from other Technical Services managers, including the current chief of solid waste operations. One of his concerns included potential conflict that might arise with the operator of the 110-liter solid waste container and landfill operations. Would he fall victim to being overcharged for use of the landfill by the other contractor? What other potential issues would Mr. Cerny have to address prior to submitting his proposal?

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[3]Firms had to obtain an entrepreneurial license prior to operating businesses in the Czech and Slovak Republics

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CESKE TECIN: PRIVATIZATION OF MUNICIPAL SOLID WASTE SERVICES THROUGH A LEASE CONTRACT (Entry Conditions)

Questions for Discussion

1. What advantages does the form of PPI chosen provide for the city of Ceske Tecin? What potential risks may exist for the city through this form of PPI?

2. What makes this deal attractive to Mr. Cerny?

3. What potential problems may exist for Mr. Cerny as the new provider of the service?

4. How can this model be applied in other market environments and how should it be modified?

5. What role exists for the World Bank Task Manager in this case?

CESKE TECIN–PRIVATIZATION OF MUNICIPAL SOLID WASTE SERVICES THROUGH A LEASE CONTRACT: EPILOGUE

The privatization of waste services

The privatization of solid waste management services in Ceske Tecin began in 1990. First, the city council requested the transfer all waste facilities from state to city control. Next the city liquidated the state-owned Technical services. Some former Technical Services employees went to work in the newly created private waste management firms, while most found other jobs locally. The majority of employees were terminated because they could not adapt to the new requirements of the private firm. These workers were either not interested in adapting their own work patterns or did not have the necessary skills. The city did not offer the newly dislocated employees other jobs since unemployment in this region was quite low (about 7%). These workers were able to find jobs fairly easily on their own through the local placement office.

The city then announced a request for proposal to bid out waste services to local private companies. The city council wanted the private sector to provide the city with refuse collection and solid waste transfer. The private contractor would lease waste facilities and office space to provide such services. Bids were judged using several criteria: the firm's ability to provide repair of waste facilities (such as trash receptacles and trucks), its willingness to maintain its own office building, and a guarantee of quality of service once in operation. Three firms submitted bids for the contract: the local government of the nearby town Karvinà (about 10 miles away), and two private firms in Ceske Tecin. The city council would not accept offers from other local governments or foreign firms. This eliminated the bid from Karvinà. Of the two firms in Ceske Tecin, one had no experience in waste management, while the other firm had considerable experience. Hence, the experienced firm, Pežga, won the bid.

The other services previously provided by the state, such as street lighting, road cleaning and repair, city landscaping and greenhouse operation, were now provided by three other private firms.

In 1990, when the city council of Ceske Tecin privatized its waste management services, there were not many firms interested in providing this type of service. Much has changed since then. Not only do Czech firms now seek to provide these services, but foreign firms are bidding as well. The city council has not yet decided whether or not it will bid out the task to a new contractor at the end of the year or even bid it out to two contractors, who would then have to share the job. If an additional contractor was chosen he or she would have to share the transfer station with the first contractor. The city council thus has two options: to refuse renewal of the existing contract and re-bid the service, or add another contractor and thus promote competition among the two. The council will continue to discuss its options before deciding on a plan of action.

Waste services: the current situation

The winning private contractor, Mr. P. Pežga, had extensive experience in waste management. Mr. Pežga had worked in all departments of Technical Services, and worked in its solid waste department for the previous three years. When Technical Services closed down he started his own company, Pežga.

Initially, Pežga employed 26 people. Several workers then left the company and were not replaced since the workers who remained had gained experience and improved efficiency. In the spring of 1995, there were 17 employees (15 taking care of collection, one accountant, and one secretary). The company now has two garbage trucks for small receptacle collection, two trucks to collect large refuse receptacles (1100 liter), one truck equipped to pump sewage from septic tanks. Mr. Pežga has already purchased three of these trucks and would like the city to sell him the rest once he raises the necessary revenue.

Pežga provided services for 1,800 pick-up sights and 227 commercial organizations in Ceske Tecin,. which has a population of 28,000. Each of Pežga's 2,027 customers signs a yearly agreement with the firm specifying frequency of collection. Customers may change their requested collection schedules at any time by sending a letter to the firm. The firm usually handles the requests within two weeks.

The contract signed by the city council allows Pežga to provide services for other customers, although it does not allow him to lease any of the equipment to other contractors. Since August 1993,Pežga also provides collection services for the nearby village of Albrechtice.

Pežga's expenses include road taxes, gas for vehicles repair of trucks and trash receptacles, employee salaries, office rental (which is paid to the city) and other indirect expenses. Although Pežga's fees cover his cost of collection and maintenance, they do not allow him sufficient funds to replace or buy additional trucks (which cost about $110,000 each). The last improvement made by Pežga involved replacing the receptacle container type on the truck for more efficient collection. This proved considerably cheaper than having to replace the truck. While small refuse receptacles are city-owned, large receptacles are now partially owned by the private contractor. Refuse containers in general have short lives (between 5 and 6 years, depending on the frequency of collection and content) so they must constantly be replaced.

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Table 1

Breakdown of refuse collection by private contractor	1993	1994
household refuse (mixed food residue)	24%	20%
bigger volume household refuse (textiles, paper, plastics)	6%	7%
big volume household refuse (furniture, appliances)	1%	0%
other big volume household refuse (fences)	3%	4%
yard trimmings	1%	2%
septic-tank waste	1%	0%
ash from coal and coke	2%	1%
building and construction rubble	11%	44%
paper cuttings	2%	2%
street cleaning refuse	2%	3%
road demolition	1%	5%
soil and excavation	46%	12%

Effect on citizens

The citizens of Ceske Tecin recognized the change in waste management services as positive for several reasons. Most noticeably, their trash cans were emptied more often than before. Next, their trash receptacles are now being repaired shortly after they are damaged, or replaced altogether. Before privatization, citizens often went several weeks without receptacles. Citizens noted that the service was inflexible and generally unreliable (sometimes the collection simply did not occur for weeks at a time). They now have the option to decide how often they want their trash to be collected since the new waste management company is flexible and willing to accommodate its customers.

Collection prices, however, have increased dramatically. In 1993, the price of collection increased by 40% and in 1994, the price was doubled (100%) from the previous year. The city has always paid 30% of the cost and citizens are asked to pay a supplement. The city pays the difference from its own budget (through funds received from the central government). In reality, only about one third of citizens actually pay the requested fee.

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Price of collection per year:

1991: $8
1992: $8
1993: $10
1994: $20
(city still pays 30%)

Waste cannot contain certain solid waste like tires, car batteries, car wreckage, etc. Citizens must pay an added fee to dispose of this type of waste. In the past, citizens received a small fee for depositing waste such as bottles, cans, scrap metal, etc. This service is rarely provided now, resulting in the disposal of wreckage throughout the town.

Use of the sanitary landfill

The sanitary landfill shared by the city, located about 25 miles outside of town, is built to meet Czech regulating standards. Waste is stored by category to avoid chemical reactions which produce toxicity and the corrosion of landfill. The landfill cannot contain potentially self-igniting material, odor-emitting materials, or materials which become heat or gas-emitting materials if in contact with water. Highly-inflammable substances and containers whose contents are under pressure are strictly forbidden, as well as certain hospital waste, metals, toxic pollutants, and organic or inorganic materials must fit into a strict and specific code of law as far as which quantities are allowed. Any amount considered hazardous under Czech law will not be admitted into the landfill.

The landfill is composed of two artificial layers resting on a natural stone basin whose bottom is semi-permeable but was made impermeable with insertion of a mineral seal two feet thick. The second layer is made of foil. The landfill has the technical capability to drain rain or groundwater and transfers the water to an impermeable pool where it can be purified. It also contains a groundwater monitoring system. When parts of the landfill are full, it is covered by soil and prepared for recultivation.

Landfill operators monitor the weight, quantity and quality of refuse. They provide space for handling waste before it is put into the landfill, and clean trucks and other landfill equipment such as bulldozers, earth movers, landfill compactors, etc.

Table 2

Fee structure in dollars per ton	1992	1993
soil and rock, dirt, misc.	.04	.11
other solid waste except above	.93	2.59
municipal solid waste	.74	2.59
special waste not including hazardous waste and municipal solid waste	4.07	11.85
hazardous waste	111.11	148.15

The city council would eventually like to transfer all its waste facilities (excluding its offices) to the private contractor, who currently rents these. This would eliminate the city's duties to pay for the annual overhaul of the facilities. The contractor would like to buy the facilities, although slowly, as his income allows it.

Some concerns

Mr. Pežga believes that cooperation between his firm and the city has generally been good. One dilemma mentioned by Mr. Pežga , however, is the city's lack of vision. In 1993, Mr. Pežga wanted to invest in a sorting facility which would include an incinerator and a transfer station. The city council vetoed this proposal since they believed that building a sorting facility would not be profitable for their small city. The city advised Mr. Pežga to start sorting on a small scale (with such activities as recycling paper first), then to slowly expand his activities. The need for a sorting facility has taken on new importance, however, since a recent Czech law states that as of June 1996, all refuse will have to be sorted. The city council has suggested that cooperation be started with other neighboring cities in order to pool resources.

Furthermore, the citv council has no modification or expansion plans for collection and disposal of solid waste. The council is aware of how much refuse the city produces, and since it presently has a place to put it, it is not eager to develop a plan for the future. But this plan will be needed shortly. At the end of 1994, the landfill within the city's district was shut down because it was not legal. The landfill did not have the required protective underlayer and toxins seeped into groundwater sources. The city currently operates another landfill which only accepts inert substances (construction debris, etc.). Presently, non-inert waste must be taken to another landfill, about 25 miles away. The city of Ceske Tecin must pay for this service on a per dump basis. The city also uses make-shift transfer stations since it is cheaper than building a new transfer station. This make-shift station is unprotected, open and unsorted. Two prospective sites exist for new landfills, but which are currently only in the proposal stages. In general, private firms are interested in developing a contract for this service. The city would not assist monetarily, but would provide the land. The current temporary solution involves Mr. Pežga taking the waste to the make-shift transfer station, where his responsibility ends. A transport company, which runs a bus and truck service in the Czech Republic, then takes the waste to the landfill.

Mr. Pežga also noted that the city hall's bureaucracy is very slow to respond to resolving needs in the waste management area. Mr. Pežga cites an example: when citizens place their trash into receptacles, refuse sometimes spills over onto the street. Since his contract does not cover this task, the refuse was left in its place. The city cleaners ignored the refuse as well, so it was not cleaned up. Mr. Pežga would eventually clean up the trash even though he was not paid to do so. He plans to ask the city to pay him for this service next year.

As another example of bureaucracy's problems, Mr. Pežga sends a monthly invoice to the city, who in turn pays him. Mr. Pežga then pays taxes out of his income. He would like to receive a subsidy from the city, as well as the process to be simplified. He believes it would be more efficient if they settle on one amount and have the city pay him directly.

The city is supposed to pay for the annual overhaul of waste equipment. Since the term "overhaul" is not specified, the private contractor must negotiate the terms each year. Mr. Pežga first requests the overhaul, then both parties agree on what is necessary given the technical state of the trucks, and the city's budget. The city tries to minimize the amount it provides for overhauls since they are quite expensive (a truck engine overhaul runs about $20,000). The city would like to sell all the facilities to the private contractor who would then assume responsibility, but must wait until the contractor has the funds to do so.

PHILIPPINES–HOPEWELL NAVOTAS I POWER PROJECT THROUGH BUILD-OPERATE-TRANSFER (Part A: Entry Conditions)

Introduction[1]

In 1988, the government of the Philippines estimated that a shortfall in electricity generated, averaging about 500 MW, would occur between 1989 through 1990 within the Luzon power grid. The government concluded that a 200 MW single cycle gas turbine power plant was needed to act as a standby facility to provide power for peak-load purposes. This arose from two major developments: a) higher than expected demand growth; and b) the governments decision not to use the 620 MW nuclear power plant at Bataan. The government had concerns over the power sector's ability to meet the demand levels to support economic growth.

In March 1988, the National Power Corporation (NPC), the state-owned entity responsible for bulk power generation and transmission, advertised an invitation to bid on the construction of the 200 MW turbine gas power plant through a Build-Operate-Transfer (BOT) scheme. This project would serve as a pilot attempt to gain experience in BOT projects prior to initiating larger scale commitments. The plant would be located at the Navotas Fishing Complex. At the end of a 12-year cooperation period, the plant would be transferred by the operator to the NPC at no cost.

Hopewell Holdings Limited (HHL), a Hong-Kong based holding company, had earlier expressed to the GoP an interest in participating in such a project. HHL had just completed in 1988 the first successfully operating BOT power plant outside of the United States. The new 700 MW Shajiao coal-fired power plant in the Guandong Province of the People's Republic of China was intact and operating profitably. Though HHL had substantial experience in BOT projects, it needed to further examine the proposed project's enabling environment for private sector participation before submitting a proposal.

Structure of the Power Sector

Prior to 1972, power was mainly generated and distributed by the private sector. During this time, the NPC held responsibility only for hydropower development, while the Manila Electric Company (MERALCO), the largest private distribution utility in the Luzon grid, operated its own oil-based thermal plants. In 1972, however, the government reorganized the power sector in response to

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problems in long-range planning caused by the sector's fragmented structure. Presidential Decree No. 40, issued in 1972, provided that the establishment of transmission line grids and the construction of generating facilities was to become the sole responsibility of the NPC as the state implementing agency.

The electric power market in the Philippines was now divided into two major power delivery systems: a) a generation and transmission system dominated by the NPC; and b) a distribution system consisting of 32 private and municipal utilities, which included MERALCO, and 118 rural electric cooperatives (RECs). The NPC was government-owned and responsible for the majority of power generation in the Philippines, including three independent power grids in Luzon, Visayas and Mindanao. The NPC also sold power to distribution utilities, large industries and the RECs.

In 1988, the electric power market had a combined installed capacity of 6,850 MW and generated 24,615 GWh. The NPC accounted for 93% of all the electricity generated in the Philippines, while private utilities accounted for 2% of electricity generated.

Problems in the Power Sector

Electricity losses had increased from about 14% in 1980 to about 18% in 1988. In 1988, public investment in power was 2,305 million Philippine pesos (US$108 million), or 28% of total government investments for public infrastructure. This fell from 3,903 million Philippine pesos (US$187.6 million), or 31.1% of total investments in 1987, and from 4,977 million Philippine pesos (US$239.3 million), or 42% of total investments in 1986.

By 1988, the NPC had made few investments in new generating plants, and existing plants needed extensive maintenance, refurbishment, and modernization. The NPC's self-financing ratio (cash available from operations for investment/3-year average capital expenditure) was negative for 1987-1988, significantly below the norm of 20-30% that was appropriate for utilities that needed to undertake major capital expenditures.

The government's decision to halt the completion of the Bataan 620 MW nuclear plant due to environmental safety problems created a serious impediment to the NPC's generating capacity. This resulted in a need to retain old, poorly maintained plants in operation which had otherwise been retired.

Encouraging Private Sector Participation

The Philippine Constitution permitted foreign ownership based on two requirements: a) only companies whose capital was at least 60% owned by Filipino nationals could purchase land, or otherwise lease land (up to 50 years); and b) only companies that were at least 60% owned by Filipino nationals could construct, operate, and own public utilities.

In July 1987, the government instituted Executive Order No. 215, which opened the doors to the private sector to construct and generate power generation facilities. This order allowed the private sector to enter into various contractual arrangements with the government, including cogeneration-build-own-operate-transfer (BOOT) schemes, and relaxed the laws established in Presidential Decree

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No. 40. The main features of Executive Order No. 215 included:

- allowing the NPC to recruit private sector participation in power generation consistent with its Power Development Program;
- permitting construction, ownership and operation of generation facilities by private parties, including foreign entities provided they were governed by Philippine Laws relating to corporate registration (under Philippine law, a foreign company could only operate in the Philippines by establishing a local legal entity) and electric utility regulation;
- allowing the private sector to construct and operate power plants throughout the country and sell electricity to the NPC grids where they existed, or to end-users in areas outside the NPC grid;
- not requiring the NPC or any other electric utility to pay more for power than if they had built the plant themselves;
- increasing power capacity through private sector generation of electricity to meet target demand without financial support from the government.

Executive Order No. 215 gave the NPC authority to process the bidding and award of the projects, thus avoiding a lengthy approval process. The NPC was also authorized to determine and award credit enhancements/limited guarantees (capital infusions made by participating parties to reduce risks in case of adverse events) in order to make the project more attractive to the private sector.

The government also enacted the **Omnibus Investments Code** in July 1987 to liberalize the country's investment policies. Part of the Code prescribed the incentives to companies who invested in the areas of the economy that were classified by the Board of Investments as "priority areas." Such incentives included three to six year tax holidays, tax deductions for labor expenses, tax credit on domestic capital equipment, and tax and duty exemption of imported spare parts and supplies.

Priority areas of the economy were divided into two groups: "pioneer" and "non-pioneer". Pioneer status allowed for 100% foreign ownership, but the area of investment had to be returned to Filipino ownership after 30 years. Non-pioneer status only applied to areas of investment in mass transit operations, storage and processing facilities, and port infrastructure.

BOT projects, however, did not automatically qualify for "pioneer status." Rather, certain areas of investment were identified as "potentially pioneer," including power generating plants. Power project sponsors would have to appear before the Board of Investment to apply for "pioneer" status, and upon approval, would receive the benefits under the Omnibus Investment Code.

- Another bill was pending in the House of Representatives that would have authorized all government infrastructure agencies to enter into contracts with any pre-qualified private contractor for the financing, construction, operation and maintenance of highways, bridges, airports, communication facilities, and power and electrification systems.

Project Design

The NPC would use the 200 MW gas turbine power plant as a peaking plant for about four hours per working day and as a standby in case of emergency. Electricity would be generated by the plant at the

NPC's request and supplied to the Luzon grid.

The proposed plant did not pose any significant environmental risks. An environmental impact study conducted by the NPC concluded that the chemical emissions into the atmosphere and liquid effluent into the Manila Bay met standards set by the Environment Management Bureau.

The private contractor would be responsible for the design, construction, testing, commissioning and operation of the power plant. The private contractor would also be responsible for fully financing the project as well as pay for all project cost overruns. The private contractor would be liable for penalties if the required power generation capacities and efficiencies set by the NPC were not met. Further, the private contractor would have to obtain all permits necessary for project implementation.

If the private contractor qualified for pioneer status, the following incentives would be granted to it under the 1987 Omnibus Investment Code:

- 100% foreign ownership;
- exemption from all national internal revenue taxes for 6 years from start of contract date, with the right to apply for extensions allowable under law;
- full exemption from customs duties and national internal revenue taxes on importation of capital equipment and spare parts up to August 1992, with the right to apply for an extension;
- tax credit equivalent to 100% of customs duties and national internal revenue taxes for locally supplied capital equipment;
- full exemption from value-added tax and local contractor's tax for the private bidder and for contractors associated with the project;
- unrestricted use of consigned equipment.

The NPC would take charge of leasing the land for the project from the Philippines Fisheries Development Authority and make it available to the private contractor at no cost. At the end of the cooperation period, the private contractor would hand over the project to the NPC, also at no cost. In addition, the NPC would ensure access to and from the project site and provide all necessary inputs for construction, testing, and commissioning the power plant. Some of these inputs included on-site roads, supply of fuel free of charge, start-up electricity, site water, security services, transmission lines, estate taxes and assessments.

Through an energy sales agreement, the private contractor's only customer would be the NPC. The NPC would be obligated to pay a monthly capacity fee in US dollars to the private contractor, whether any electricity was generated or not, for standby capacity committed to be available. The NPC would also pay a monthly energy fee based on electricity actually generated and supplied to the NPC. A majority of the energy fee would be paid in US dollars to an offshore escrow account, while the remainder would be paid in local currency to cover operating and maintenance costs incurred locally by the project company.

The NPC had not guaranteed the minimum amount of energy it would purchase. The government did provide, however, a performance undertaking through which the government guaranteed NPC's performance and payment obligations (e.g. capacity fee, fuel provisions) to the private contractor.

The government could claim abandonment by the private contractor if physical completion of the plant

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were not achieved at the end of a period of 10 months after the target date of completion. The NPC would require the private contractor to post a performance bond of US$4 million as security for its completion obligation. For reasons of *force majeure* (ie. earthquakes or civil wars), NPC would refund the project company their capital costs plus a 10% premium.

The NPC would also have a continuing option to buyout the equity holders after 5 years by paying the remainder of the present value of the capacity fee.

Making a Decision

Hopewell Holdings Limited planned to propose the refurbishing of three used turbines, instead of the purchase of new equipment. HHL also planned to use its subsidiary, Hopewell Project Management Company (HPMC), to prepare the project and provide the majority of the equity for the project. To cover its obligations to pay for all project cost overruns, HHL would most likely enter into a fixed price turnkey contract with Slipform Engineering Limited (SEL), another subsidiary with substantial experience in civil construction and portfolio investment. HHL was also aware that it would need to establish a local subsidiary in order to even be considered for pioneer status and receive the benefits under it. Though realizing who it would need to implement the project, what issues did HHL have to work through to ensure that the project itself would succeed?

PHILIPPINES–HOPEWELL NAVOTAS I POWER PROJECT THROUGH BUILD-OPERATE-TRANSFER (Part A: Entry Conditions)

Questions for Discussion

1. What advantages does a BOT scheme provide for the GoP?

2. What makes this project attractive to Hopewell?

3. What issues does Hopewell need to resolve before submitting a bid?

4. How are risks commonly allocated in a BOT project? What risks are being born by each party in this case? What constitutes a fair allocation of risks?

5. What factors may contribute to the success of this BOT project?

6. Is there a role for the World Bank Task Manager in this case? If so, what type of role?

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PHILIPPINES–HOPEWELL NAVOTAS 1 POWER PROJECT THROUGH BUILD-OPERATE-TRANSFER (Part B: Financing Package)

Introduction[1]

Hopewell Holdings Limited (HHL) was the only company to submit a bid that conformed to the parameters set by NPC. Two other bids were accepted, but not submitted as BOT projects and were twice the cost of Hopewell's. This was primarily due to the fact that the other companies proposed purchasing brand new equipment, whereas Hopewell proposed the refurbishing of three used turbines. Contract negotiations began in May of 1988 and a contract was signed between Hopewell and NPC in November of the same year.

Hopewell Philippines, the local private company established by HHL, was granted pioneer status and the associated incentives under the Omnibus Investments Code by the Board of Investments on January 31, 1989. Hopewell Philippines was also registered with the Philippines Securities and Exchange Commission

Project Sponsors

This project was sponsored by the following entities:

- Project Equity Sponsor: Hopewell Project Management Company (HPMC), a subsidiary of HHL, was jointly owned by HHL and Kanematsu Gosho, Ltd (KGL) of Japan. HPMC the provided majority of the equity to the project.

- Local Project Sponsor: Incorporated in the Philippines to implement, manage, operate, and maintain the power plant. The company would be established as Hopewell Energy Philippines Corporation (Hopewell Philippines).

- Turnkey Contractor: Slipform Engineering Limited (SEL) was a subsidiary of HHL. SEL was the turnkey contractor for the projects. SEL was engaged in civil construction, consulting services, portfolio investment and had extensive experience in project management and civil construction.

- Financial Advisor: Citibank was an experienced financial advisor and the financier of Hopewell's Shajiao deal.

[1]This case study was developed by *Price Waterhouse LLP* for the Private Participation in Infrastructure (PPI) Seminar given for the World Bank Group. The case is meant to serve as a basis for class discussion rather than to illustrate either effective or ineffective handling of a business scenario. The authors of the case wish to thank the World Bank's PPI Group for obtaining information necessary to write the case. Further use of the case is prohibited without permission from *Price Waterhouse LLP* and the World Bank's PPI Group.

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- Implementing Agency: The Government-owned National Power Corporation (NPC) was responsible for bulk generation and transmission facilities in Luzon, Visayas, Mindanao and other major islands.

Other participants in the project were:

- Civil Designer: A civil works design contract was let by Hopewell Philippines to Ove Arup and Partners, H.K., a firm internationally known for its competence in civil designs, with representatives in the Philippines.

- Civil Works: Civil works was undertaken by local contractors who were pre-qualified and selected on a competitive basis.

- Electrical/Mechanical Design: This was carried out by Ewbank Preece Engineering (HK) Limited, which assisted HPMC in an advisory capacity in inspecting the turbines and appraising them. Additionally, the firm was to provide consulting services to SEL in the dismantling of turbines in the US and then re-erection in the Philippines.

Total Project Cost

Total cost for the project amounted to US$45.47 million, broken down as follows:

ITEM	COST (US$ millions)	PERCENT OF TOTAL
Gas Turbines	23.50	57.3
Refurbishment, Shipping	5.60	13.7
Switchgear	3.10	7.5
Civil Works	3.10	7.5
Interest During Cons.	2.20	5.4
Others	3.50	8.6
HPMC COSTS	41.00	100.0
NPC COSTS	4.47	
TOTAL COSTS	45.47	

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BOT SECURITY PACKAGE

The BOT security package developed NPC and HPMC was a comprehensive agreement which included project implementation, power sales and fuel supply arrangements. The security package served as a summary of all the key contractual undertakings and provided the basis from which the other project contracts were subsequently developed.

Land/Construction Agreement

The site for the power plant was leased by NPC and made available to Hopewell Philippines at no cost. This site, including the facility, would revert back to NPC at the end of the cooperation period free of charge.

Financing Agreement

HHL's responsibility to finance the project as well as cover cost overruns was accomplished by entering into a fixed price turnkey contract with SEL. To guarantee its obligations, SEL posted a performance bond of US$3.5 million, equivalent to ten percent (10%) of the turnkey contract. The economic consequence of any delays in delivery or any cost overrun in excess of the performance bond was to be the responsibility of HHL.

Energy Sales Agreement

NPC would pay a monthly capacity fee to Hopewell Philippines, regardless of usage, for standby capacity committed to be available. The NPC guaranteed that it would pay to Hopewell Philippines a fixed capacity fee of $3.225 per kw per month, which would represent 90% of the project's revenues. This fee would be denominated and paid in US dollars to an offshore escrow account in Hong Kong.

In addition, the NPC would pay a monthly energy fee based on electricity actually generated and supplied to NPC, although there was no minimum guaranteed off-take. The majority of the energy fee would be paid in US dollars to an offshore escrow account and the balance would be paid in local currency for use by Hopewell Philippines for expenses incurred locally. Fuel would be supplied by NPC at no cost to Hopewell Philippines.

The government would guarantee NPC's payment obligations through a performance undertaking, by which the government backed NPC's obligations to the winning contractor (ie. capacity fee payment, energy fee payment, no-cost fuel provisions, etc.).

Hopewell would be liable for penalties in the event of failure to generate the contracted amount of electricity at agreed upon heat levels. Hopewell would be penalized for not producing enough electricity at that specified heat level.

Equipment Agreement

HHL would purchase 3X75 MW Westinghouse gas turbines that belonged to Tri-State Corporation, a non-profit, wholesale power supply utility cooperative based in the United States. The equipment was

sold to Hopewell by George Zaferos, Inc. (GZI), a company that acted as the intermediary and had exclusive selling rights to the units.

The units were approximately twelve (12) years old, although they were used for only two thousand (2,000) running hours and considered in good condition. The turbines were refurbished to "zero running hours" and were expected to have no difficulty delivering rated output of 210 MW during the entire cooperation period.

Shanahan Engineering, based in Ireland, carried out the dismantling, shipping and commissioning of the turbines as subcontractor to SEL. They also installed the high-voltage switchyard.

Abandonment & Buy-out Agreement

If abandonment by HPMC occurred, HPMC would pay US$4 million in full and final liquidated damages in addition to any delay penalties incurred. HPMC would post a US$4 million bond as security for this obligation. Hopewell Philippines would assume this obligation as a party to the accession agreement between HHL and NPC. SEL would counter-indemnify HPMC for this amount to cover its liability.

Had abandonment occurred for reasons of force majeure, NPC would have refunded to the company the capital cost incurred plus a ten (10) percent premium.

The security package further permitted NPC to buy out the equity holders after five years by paying the remainder of the present value of the capacity fee.

Operation & Maintenance Agreement

Hopewell Philippines was responsible for the managements, operation, maintenance and repair of the power station throughout the cooperation period. Although the intention was to utilize the plant for peak shaving (4 hours per day), the plant was to be fully manned and available to generate in excess of minimum output requirements. Operation on weekends and public holidays was subject to notice from NPC.

Routine annual, monthly, and weekly system operation programs were to be prepared by NPC in consultation with Hopewell Philippines. Programs would allow for downtime to enable Hopewell Philippines to maintain gas turbine generators in line with manufacturer's recommendations.

Planned maintenance and downtime was calculated as a function of operating hours and unit starts times twenty (20) hours. Downtime occurs every four thousand (4,000) hours and downtime varies between seventy-two (72) hours and seven (7) days.

PROJECT FINANCING

Financing Package

Total capital raised for the project was US$41.0 million: US$30.0 million came in the form of debt and US$11.0 million was in the form of equity. In addition, NPC spent US$4.5 million for construction of fuels oil tanks and related transmission lines. These were financed by NPC out of its own resources. Of the US$45.5 million total funding, US$36.66 million (80.62%) was provided in foreign exchange and US$8.81 million (19.38%) in local currency.

Equity Component

The equity portion of the capital structure, accounting for 37% of the total capital, was composed of the following:

	Contribution (US$ Millions)	Percent of Total
(i) HPMC	6.61	60.10
(ii) Citicorp	2.19	19.90
(iii) ADB	1.10	10.00
(iv) IFC	1.10	10.00
	11.00	100.00

The debt-equity swap mechanism, pursuant to Central Bank (CB) Circular No. 1111, was used to provide equity funds. This mechanism allowed Citicorp, for example, to purchase eligible debt paper at prevailing market prices which the Central Bank discounted and converted to equity in Philippine pesos. This meant purchasing debt from a "fresh water" bank that held debt paper in dollars of about the same face value as that which had to be invested in Navotas. Citicorp then retired the debt on that paper with the Central Bank, who converted dollars into pesos for Citicorp to contribute equity to the Navotas project.

Debt Holders

The Debt holders were as follows:

(i)	ADB	US$ 10.0 MM
(ii)	IFC	US$ 10.0 MM
(iii)	Commercial Co-financing	US$ 10.0 MM
	Total	US$ 30.0 MM

The ADB portion was a currency-specific loan in US dollars from its Ordinary Capital Resources (OCR) to Hopewell Philippines. The term was ten (10) years inclusive of a grace period of one year.

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The interest rate was fixed at 10.75% per annum. A commitment fee of 1% per annum on 50 percent of the loan amount less any disbursements during the first year, and 1 percent per annum on the loan amount less any disbursements thereafter. A front-end fee of 1/2 percent was also charged to recover the Bank's processing expenses.

Commercial co-financing in the amount of US$10.0 million was arranged by the ADB through its Complementary Financing Scheme (CFS). The participating banks were:

Osterreichesche Landerbank AG	(US$4.0 million)
Indosuez Asia Ltd.	(US$2.0 million)
Credit Lyonnais	(US$2.0 million)
Girozentrale Bank	(US$2.0 million)

The term of the CFS loan was seven years with an one-year grace period. The interest rate was 1-3/4 per cent above three-month LIBOR.

The IFC loan was a variable rate loan at 2% over 3-month LIBOR. The term of the loan was fixed at 9 years with 36 quarterly installments commencing six months after project completion.

Payments Structure

The finances for the project company were handled by an escrow agent based in Hong Kong. Under this arrangement, the escrow agent received the capacity fee from NPC and used this money to make debt service payments to the project's lenders. Whatever cash flow was left over was handed over to the project company.

The Security Package for lenders

The lender's security package included the following provisions in the loan agreement:

(i) Maximum debt/equity ratio of 75:25
(ii) Minimum liquidity ratio of 1.3:1
(iii) General minimum debt-service ratio of 1.3:1
(iv) Maintenance of 3 months forward moving balance of debt-service payments
(v) Retention of minimum cash dividend balance of $.95 million until co-financing loans were repaid
(vi) No buyout of equity shares until long-term debt was repaid
(vii) Payment of dividends would be subject to satisfactory payment of due debt-service and compliance with the covenants above.

In addition, the security package also included:

(i) A real estate and chattel mortgage on all fixed and moveable assets of Hopewell Philippines respectively
(ii) A special Power of Attorney to exercise all rights under the Project Agreement
(iii) Charge over the escrow account
(iv) Assignment of all insurance proceed including business interruption insurance.

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PROJECTED PERFORMANCE

Operating Projections

The gas turbines were expected to operate in a peaking mode with a plant usage factor range of 0-25%. Based on demand growth projections in the Luzon grid, and given the planned addition of new coal-fired base load plants, NPC estimated an average plant usage factor of fifteen percent (15%) for three turbines until the year 2000. Base case assumed an average plant usage factor of ten percent (10%), dropping to eight percent (8%) in years 1992, 1995, 1998, and 2001, due to additional required downtime for maintenance in those years. As no new base load capacity was expected to be on stream until 1993, it was virtually certain that these turbines would be used extensively to meet peak load demand until 1993.

Operating costs (excluding depreciation) were estimated at about eighteen percent (18%) of total revenues and were projected on the basis of comparable plants in the Philippines.

The projections assumed that the project would be able to obtain capacity fees for 210 MW on a consistent basis. Energy fees would account for less than ten percent (10%) of total revenues in the base case. The return on equity was seventeen percent (17%) measured in current US dollars. Debt service remained tight in years 2 and 3, reflecting the fact that commercial bank loans would get paid off on a shorter schedule, six months after the end of a six-month grace period.

Sensitivity Analysis

Performance was tested against two possible adverse situations: (i) a reduction from 210 MW to 200 MW which would have resulted in a decrease of the capacity fee, and (ii) no energy fee for the life of the project due to non-utilization.

Assuming the project would earn only capacity fee payments, the return dropped to 13% in current dollar terms and the debt service coverage ratio would drop to 1.0. The project was able to service its debt even in the case that it did not generate any power over its entire life. This low-debt service coverage ratio was offset by three other factors:

(i) Cash flows are highly predictable and stable.
(ii) Three-month forward debt-service is permanently blocked in the retention account.
(iii) Dividends of up to US$ 0.95 million are retained until shorter term commercial bank loans are repaid.

HOPEWELL NAVOTAS 1 TODAY

It was often the case that timetables were not adhered to, for a wide variety of reasons. In the case of Navotas 1, the effective date of the contract was postponed from May 31, 1989 to October 1, 1989.

This was due to the fact that certain legal/contractual problems were encountered. The first major obstacle was a complication in the lease of land between the Philippine Fisheries Development Authority and NPC. Second, a delay in finalizing all legalistic matter caused time slippage in the purchase of equipment. The turbines were finally purchased in August of 1989.

Damage to the equipment occurred during shipping, causing more delays. All three units were shipped to Hong Kong for repairs. Two out of the three units suffered largely superficial damage but the third unit required extensive repairs. Repairs were undertaken in Hong Kong by ADB.

Because of these delays, a revised completion schedule was agreed:

(i) Unit 1 July 7, 1990
(ii) Unit 2 August 15, 1990
(iii) Unit 3 September 30, 1990

No other operational problems were encountered and the project was ultimately completed on time, based on this new schedule. Plant availability was at an average of ninety-eight percent (98%) with average running time per weekday of thirteen (13) hours. Needless to say, running time was much longer than anticipated and this resulted in greater returns through increased energy fees.

Navotas 1 was an excellent and rapid solution to the Luzon energy crisis.

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Case I: Restructured Port
Port Kelang, Malaysia

Introduction[1]

On September 14, 1988, Mr. Jafaar Ahmed, Deputy Director of the Ministry of Transport (MOT), was in the process of reviewing his presentation to the Prime Minister's Privatization Task Force. He had been called upon to present the Ministry's views on the proposed Ports Privatization Act which was being drafted for approval by the Parliament. The act currently allowed each port to develop and implement its own privatization strategy, subject to approval of the MOT. However, the Ministry believed that formulating a comprehensive ports privatization strategy should be the responsibility of MOT officials and the Task Force. These organizations had acquired some measure of privatization knowledge and experience over the past few years.

It was two years since the privatization of Port Kelang's container terminal. Not only had the terminal been the first port operation to be turned over to the private sector, but it was also the government's pilot project to initiate nation-wide a private sector development program. Many claimed it had been a success, but not everyone agreed. There were several concerns about the pilot project, including the appropriateness of privatizing a natural monopoly; of "selling off" what had already been a successful and profitable government entity; and of protecting the interests of the workforce. Some also questioned the long-term impact on the financial performance of the rest of the port without what had traditionally been the most profitable division.

Mr. Ahmed was confident that, while there were many reasons that pointed to the success of the container terminal's privatization, he believed that the issues were more complex than the ports themselves realized, and that not every port was positioned to easily replicate the privatization methodology employed at Port Kelang. He was anxious to inform the board of his views, and was ready to answer their questions.

Economic and Political Background Prior to 1983

Malaysia is comprised of Peninsular Malaysia at the southern tip of the Asian mainland, and East Malaysia on the island of Borneo. About 80% of the roughly 17 million inhabitants reside on the Peninsula (see Exhibit 1). Malaysia obtained independence from Britain is 1957, and for a decade experienced an average growth rate of about 6% per year, and a 30% increase in per capita income. Economic growth and political stability contributed to the country's positive trade

[1] This case study was written by *Price Waterhouse LLP* as part of the Regional Seminar on Ports Restructuring, Project Number 690-0280. The seminar was funded by the U.S. Agency for International Development, Regional Center for Southern Africa, on behalf of the Southern African Transport and Communications Commission and the Port Management Association of Eastern and Southern Africa. This case was prepared as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

surplus, budget surplus, and low inflation rate. Private enterprise flourished without much government intervention.

The Malaysian population consisted of three ethnic groups. The indigenous population, called the Bumiputras, comprised roughly 50% of the population, yet were among the poorest. The Chinese comprised 35%, and the Indians, 12%. During the 1960's, the government pursued a policy of income redistribution to help relieve the Bumiputra population of widespread poverty, but these efforts proved too limited in scope to be effective. In 1969, violence broke out and the Bumiputras seized control of the government.

The Bumiputra government implemented a New Economic Policy (NEP) which required a more active government role in the redistribution of wealth which would favor the Bumiputra majority. Developing state-owned enterprises was seen as the necessary vehicle for implementing NEP. The government's role in the economy doubled from 24% in 1966 to 48% in 1981. Expansion of this program kept the economy growing at a solid pace for ten years, aided by increasing commodity prices for key Malaysian exports, notably rubber, tin, palm oil, and crude oil.

An international recession in 1981-1982 severely affected Malaysia's trade balance and fiscal stability. By the end of 1982, external debt reached 93% of GDP. During this economic crisis, Dr. Mahathir bin Mohjamad stepped in as the new Prime Minister. His government decided on two measures to reverse the economic decline: first, improve poor performance in state-owned enterprises, and second, increase the level of private participation in the economy, thereby reducing public expenditure.

Private Participation through Privatization

Prime Minister Mahathir was convinced that Malaysia's current economic crisis was due largely to the government's increasing financial and administrative obligations for the management of an overwhelming number of public enterprises. He firmly believed that a majority of public enterprises suffered from poor managerial decision-making, inefficient use of resources, and unmotivated employees - problems that could be resolved in part by encouraging the participation of the private sector. Backed by Mahathir, the government decided on a set of objectives for developing the private sector, including:

- reduce the administrative and financial obligations of the government
- improve the efficiency and productivity of state-owned enterprises,
- increase the level of private participation in the economy by promoting investment and entrepreneurship,
- reduce the monopolies and bureaucracy present in the government, and
- perform all of the above in the context and spirit of the NEP.

The concerns of government officials at the outset of this process were numerous. For example, there was no domestic precedent or expertise in privatization; the general public and the unions

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were expected to be opposed to the idea; and the window of opportunity for demonstrating a successful beginning was limited. Immediately, the government began the tasks of forming a privatization entity, establishing laws and regulations, and selecting the first entities for privatization.

After carefully evaluating a short list of potential candidates, the Prime Minister personally selected the Port Kelang Container Terminal as the first pilot company to be privatized. Although the reasons for the container terminal's selection were not made clear, it seemed to be in line with national objectives to revitalize the transport sector by increasing efficiency and reliability while decreasing costs. Linkages to foreign markets were considered essential for expanding the country's economic growth, and sea trade played an important role the export/import market. In fact, one of the government's overriding concerns regarding the performance of Port Kelang was the long-term impact on Malaysia's ability to facilitate international trade. Lastly, the container terminal's solid financial condition and potential for growth would presumably appeal to investors.

Port Kelang Before Privatization

Located 30 miles from the inland capital of Kuala Lumpur, on the straits of Malacca off the South China Sea, Port Kelang is the largest and most important of the fifteen Malaysian ports. Seven additional ports surround the Malaysian peninsula, while another seven ports cover the coastline of west Malaysia. Competition for international trade emanates primarily from the port of Singapore, located at the southern tip of the peninsula.

Management

From 1901 to 1963, Port Kelang was managed by the Malay Railway Administration. Port Kelang served the area surrounding Kuala Lumpur, and was the principal port of the country. Under the Port Authorities Act of 1963, management was transferred to the newly-created Kelang Port Authority (KPA). KPA was responsible for both regulating and managing the activities of the port.

As a statutory authority, KPA had financial autonomy which required KPA to raise its own funds and pay corporate taxes. KPA had the right to hire and fire its own staff, but could not authorize transfers of employees to other government agencies. Although autonomous, KPA's Board of Directors included officials from the Ministry of Transport, Ministry of Finance, the Economic Planning Unit, and the Selangor State Secretariat. The presence of so many government entities impinged on KPA's ability to act independently; for instance, KPA was required to purchase a crane for the container terminal from a designated manufacturer that KPA would not have considered otherwise.

Operations

In the early 1980's, all aspects of port operations were handled by the Kelang Port Authority (KPA), including tugs, pilotage, stevedoring, container handling and container freight station operations. The port operated reasonably efficiently with 24 hour operations for all major ship handling services.

Port Kelang was primarily a general cargo port with 14 berths handling principally general break bulk cargo on ocean-going and coastal vessels. In addition the port had three berths dedicated to Ro/Ro and container traffic. Dry bulk handling facilities were available at two dedicated bulk berths as well as at several of the general cargo berths. Another two berths were dedicated to tankers.

The port was able to accommodate large general cargo vessels - up to about 620ft LOA at berths with 30 to 40 ft depth alongside. Smaller coastal vessels were handled at three shallow water berths. The Ro/Ro berth could handle ships up to about 40,000 tons. Vessels up to the "handy-sized" range (about 35,000 dwt) could be accommodated. Small tankers could be accommodated at two dolphin berths.

KPA had opened the container terminal in 1973 as a result of the growing demand for container services. Three units were created within the container services division: the Container Terminal Department, the Container Mechanical Engineering Department, and the Container Security Section. These units provided services for discharging containers at the quayside, transporting containers from the quayside to the container stacking yard, storing at the container stacking yard, and releasing containers to the consignee. Large container vessels of up to 950 ft LOA and with over 40 ft of draft could be handled at the 2 dedicated container berths. Between 1981 and 1983, container throughput had increased from 148,000TEU's to 193,000 (see Exhibit 2). The terminal was expected to continue being the fastest-growing division of the port.

The two container berths, operated by KPA staff, were served by four gantry cranes backed up by 21 straddle carriers and 30 to 40 tractor trailers. The container stacking area was designed to accommodate 9,000 TEU. A container freight station for container stuffing and stripping was located near by the container berths. Terminal efficiency was reasonably good with gantry load/ discharge rates of 20 moves per hour being achieved.

Despite the introduction of container services, many people believed that customer satisfaction with the port was declining to the point where it risked losing valuable international shipping clients. Shippers expressed discontent with the port's operations, including increasing congestion and the underutilization of available equipment. The container terminal was considered to be operating at less than standard performance levels, resulting from management's inability to efficiently manage the terminal's receiving and releasing services, terminal stacking yard, ship planning and ship working.

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The government also recognized that customer service was being adversely affected by problems generated from a lack of coordination or cooperation with third party operators, among which were the customs officials, freight forwarders, shippers, consignees, and inland haulers. Port officials complained that administrative and bureaucratic delays were crippling the implementation of new projects and impairing management's ability to compete on a commercial basis.

Labor

KPA employed over 6,000 employees, and was the largest employer in the town of Port Kelang. Employees belonged to the CUEPACS union which represented more than 150,000 civil servants nation-wide. Roughly 800 employees, or 13% of KPA's workforce, serviced the container terminal. As with most government-owned enterprises, life-long job security and compensation based on seniority typified the workers' employment expectations.

However, a number of labor-related problems had been cited by KPA customers, including productivity levels below that of surrounding international ports, the lack of skilled workers capable of operating the port's cranes and other equipment, the downtime of equipment dependent upon the availability of maintenance staff, and increasing levels of pilferage.

Finance

Despite obvious efficiency and operational problems with the port, it was nevertheless an profitable entity which had continued to pay its 45% profit tax to the government, even during the recession. In 1983, KPA had reported revenues of M$ 189.6 million, and net income after taxes of M$ 26.4 million (see Exhibit 3A). The container terminal was particularly profitable, generating approximately 33% of the port's revenues and 56% of its profits in 1983 (see Exhibit 3B). This was despite the fact that container handling charges had not been increased by the Ministry.

As a government entity, KPA financed its capital expenditures, for example, the development of the container terminal in 1973, through the Ministry of Transport at subsidized rates. At the time of privatization, KPA had loans outstanding from development of the container terminal.

Competition

Since Singapore had broken away from Malaysia in 1965, its port was the biggest international competitor to Port Kelang, operating on a scale and size comparable to ports found in Japan and Hong Kong. Customer perception held that this port operated more efficiently and with more modern facilities than Port Kelang. The port was managed by the Port of Singapore Authority (PSA). Compared to Port Kelang, PSA maintained over three times the number of wharves, container cranes, and container stacking yard capacity. A number of large domestic and international companies, primarily in the petroleum industry, also maintained several berths at the port. In addition, Singapore's port was more accessible from the China Sea than Port Kelang.

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PSA was in the process of solidifying its position as a regional hub, persuading the large, international carriers that its size, location, and efficiency were best suited for international traffic, while surrounding ports could access the port's feeder lines for local traffic. The port offered international carriers access to transshipment services into Malaysia via feeder lines that shipped goods into the smaller Malaysian ports, or by road via the causeway that connected the island of Singapore to the Malaysian Peninsula.

Singapore was well on its way of realizing its goal as a regional hub. In 1983, approximately 30% of Port Kelang's containerized cargo moved through Singapore. Two-thirds of the cargo was transshipment, and one-third was direct trade to and from Malaysia. Even some of the Malaysian shipping companies were using Singapore rather than Malaysian ports. Customers cited the port's volume discounts, location, facilities, and efficiency in the cargo handling and forwarding as reasons why they preferred this port.

KPA had no specified marketing strategy to target new customers. In terms of size and services offered, it operated on the level of comparable ports in neighboring Thailand, Indonesia, and the Philippines. One advantage of selecting Port Kelang's container terminal for privatization was that none of these countries had, as yet, embarked on ambitious restructuring or public-private partnership programs. A disadvantage was the lack of precedents.

While Port Kelang had been the largest of Malaysian ports, the port also competed with other government-owned ports, namely the southern port of Pasir Hudang, the northern port, Penang, and the eastern port, Canteen. These ports did not have the developed containerization facilities of Port Kelang, nor did they compete heavily against each other.

Preparing for Privatization

The government of Malaysia was anxious to proceed with privatization of the container terminal despite the lack of appropriate regulations or even the designation of a government privatization entity. However, the process of bringing in the private sector needed to be both transparent to the public and ultimately accepted by the public. Recognizing that an experienced team would be necessary to undertake the first phase of privatizing the port, the government initiated a request for proposals from the local and international investment community.

A consortium led by Aseambankers, a local investment firm, and Kleinwort Benson, an international investment firm from England, won the bid. Their proposal combined local knowledge with experience in conducting transactions. Their task was to analyze the operations of the port and container terminal, value the container terminal's assets, and then recommend a process for divesting the terminal. The advisors were asked to take into account certain transaction requirements, namely: employees at the terminal would not be worse off as a result of privatization, the private company would be responsible for equipment maintenance, areas of mutual cooperation between KPA and the new entity would be specified, and the long-term financial position of KPA would not be compromised.

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The government accepted the chief recommendations of the Aseambankers team, submitted in the fall of 1984, which suggested that the government proceed by:

- corporatizing the container terminal as a separate entity; a legal requirement for privatization
- arranging a leasing agreement between KPA and the container terminal to operate the terminal's facilities
- selling a controlling percentage of shares to a private operator; and
- selling a block of shares on the Kuala Lumpur Stock Exchange within two years.

The container terminal was incorporated as a wholly-owned subsidiary under the name of the Kelang Container Terminal (KCT). Authorized capital of M$ 500 million (approximately US$ 201 million) was divided into 500 million shares of M$ 1 each. The government decided that 51% of the shares would be offered to a strategic investor, while KPA would retain 49%. After a period of two years, shares would be released on the stock exchange, reducing the current shareholders' stake, such that the final distribution would be: investor (40%), KPA (20%), public (35%), and employees (5%). The investor would purchase all of KCT's equipment, lease the land and buildings from KPA, and sign a management agreement specifying, in part, the allocation of responsibilities (i.e. fire-fighting and security services) between KCT and KPA.

In the meantime, the government initiated negotiations with CUEPACS leaders, who were adamantly opposed to private participation in the port's management. They were convinced that they would stand to lose significantly from the new privatization policy and expressed a number of concerns over issues such as job security, loss of benefits, inequitable compensation, morale, and others. The government clearly understood that winning over the union, and negotiating a fair agreement in the case of Port Kelang would be crucial for the success of future privatizations. Several months were spent in negotiations, with even the Prime Minister meeting with union representatives to lend his support.

The deal that was finally negotiated guaranteed the workers that they would not be worse off as a result of privatization. They were given the option of either terminating employment with KPA and receiving severance pay; remain employees of KPA rather than the new container terminal; or become an employee of the new company, whereby they could not be fired for a period of five years, except in extreme cases. The government also amended the pension law to ensure that their pension contributions under the KPA would not be lost.

Implementing Private Sector Participation

At the end of 1984, the Prime Minister designated a new department under the Economic Planning Unit (EPU) to oversee the privatization initiative. The Inter-Departmental Committee on

Privatization combined a select group of civil servants from various ministries already represented on the Privatization Task Force. They were immediately given the task to draft a set of privatization guidelines, and to oversee the process of privatization.

To facilitate the search and selection of an investor, the government once again called on Aseambankers to assemble the terms of reference for the bidding process and then oversee evaluation of the bids. Potential investors were required to submit numerous documents, including:

- a commitment to retain all workers retained by KCT for no less than five years, and to compensate them at their current level or better
- identification of all major shareholders, their financial condition, and their experience in terminal operations (implying implicitly that a foreign operator should be included in the bid)
- identification of key personnel proposed to manage terminal operations
- a detailed business plan including operational strategies, pro-forma financial statements, proposed capital expenditures, and an implementation plan
- proposed price for the shares of KCT and projections of future earnings to be remitted to KPA

In March 1985, the government announced that a newly-formed consortium, called Konnas Terminal Kelang Sendirian Bhd (KTK), had won the bid. KTK consisted of a joint venture between Kontena Nasional, a nation-wide trucking company with an 80% stake in KTK, and P&O Australia, a global shipping company with 20% . Kontena Nasional was actually a state-owned enterprise comprised of the Bumiputra Investment Foundation, which controlled 82% of the company, and two Malaysian shipping companies with 7.5% each (See Exhibit 4).

The consortium agreed to pay the equivalent of M$ 56.9 million (roughly US$ 23 million) for 51% of the shares of KCT. The land and buildings would be leased for 21 years by KTK for M$16.9 million (US$ 6.8 million) annually, to be increased by 10% every three years. A percentage of revenues for throughput in excess of 350,000TEUs would also be paid to KPA. A nine-member Board of Directors was established with four seats allocated to KN, one to P&O, and one each to KPA, the Treasury Department, the Ministry of Transport, and the Economic Planning Unit.

The process of completing negotiations required eight months and the participation of seven different government agencies. Although all the agreements were signed in September, 1985, handing over management control would not take place until March, 1986.

The First Two Years

KCT's management goals were to ensure increasing revenues and profitablity through improving the management structure, improving operating efficiency and the efficient utilization of

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equipment, pursuing a more aggressive marketing strategy, and improving labor utilization through cross-training and other measures.

As part of the privatization agreement, P&O was obliged to provide key managerial personnel for a period of five years. Three expatriates were placed in top management positions within KCT and some other officials were reallocated. Management sought to reduce the stifling level of bureaucratic control in the organization by pushing responsibility down to the lower level managers. The new managers were instrumental in bringing in a new corporate culture.

Operating efficiency was increased by allowing the terminal to be evaluated independently of the rest of the port, thus making it easier to monitor the terminal's activities. The increased flexibility to react to issues that arose on a day-to-day basis also enhanced performance. In addition, KCT installed a community computerized exchange to facilitate traffic management which allowed shipping lines, forwarding and shipping agents, customs, etc. to access the database and greatly reduce the amount of documentation required. By automating the arrival and unloading of ships, potential bottlenecks could be avoided.

Management immediately initiated an aggressive marketing campaign to compete against Singapore. Without government intervention in the setting of tariffs, KCT was able to offer discounts and rebates to customers and otherwise respond to trends in the market. KCT was targeting a number of international carriers, for example the Taiwanese line Evergreen, the Japanese "K" line, and Wan Hai Lines, to increase their calls to the port.

Labor union officials had already acknowledged the fact that increasing productivity was necessary. When the new management arrived, they began immediately to instill a new corporate culture into the organization. Employees transferred to KCT had all worked on the wharf. Restructuring the organization included promoting and training some of the workers to perform administrative jobs, while others were trained as foreman or supervisors. The unskilled workers were taught to use and repair equipment, and employees were cross-trained so that they were flexible in performing the tasks that needed to be done at the time. For example, equipment down time was reduced when the employees were trained to repair it without waiting unnecessarily for the maintenance staff. While there were some complaints about having to work harder or longer, these were offset by the workers' ability to participate in decision-making, and their higher pay (at least 20% for the same position), and incentive bonuses.

Within two years of assuming management control of KCT, results were positive, although not all of the performance targets had been met. Throughput had reached a level of approximately 320,000 TEUs by 1988, up from 242,000 TEUs in 1986, but below the target of 348,000 (see Exhibit 2). Experts pointed to external factors such as the recession in industrial markets and competitiveness in the industry as potential reasons for the slower-than-projected growth. Also, KCT was unable to affect certain port-related services such as customs clearance and forwarding, which continued to experience problems. However, the port was still poised to expand

aggressively, and was planning to invest in an additional 12 straddle carriers within the next year.

Mr. Ahmed's Decision

Mr. Ahmed knew that he needed to make a good case before the Privatization Task Force. He was convinced that the MOT's experience in the Port Kelang container terminal privatization would give it tremendous leverage in assisting the ports in their privatization endeavors. He believed that the privatization issues were of greater complexity than the ports would anticipate. Further, he knew that the privatization methodology at Port Kelang would not always be easily replicated at every port. With these thoughts in mind, Mr. Ahmed gathered up his notes and headed off to his meeting with the Privatization Task Force.

MALAYSIA

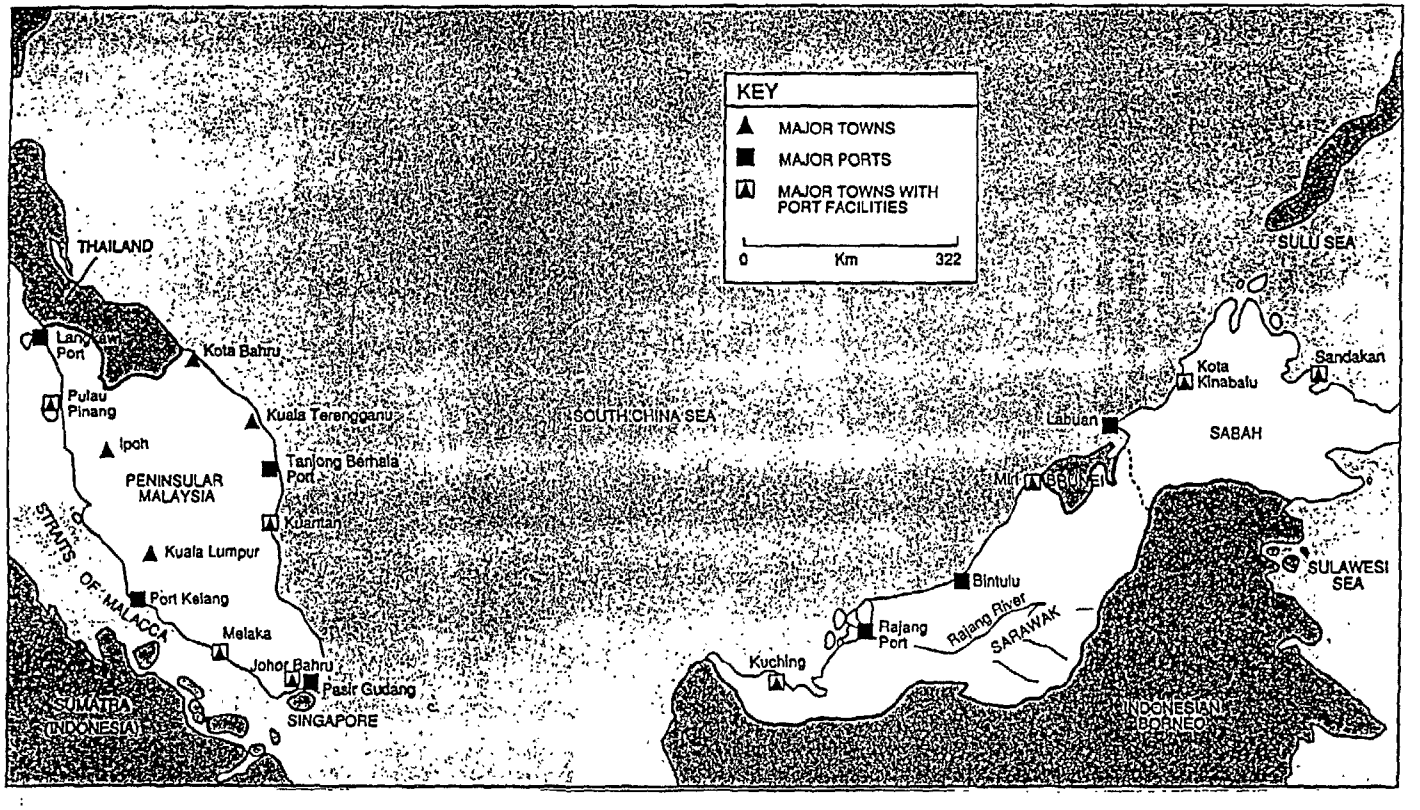

Exhibit 1

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Exhibit 2

Port Kelang Container Throughput
(thousands of TEUs)

Year	TEUs	Estimated Prior to Privatization*
1981	148	
1982	157	
1983	193	
1984	241	
1985	245	
1986	242	283
1987	276	310
1988	315**	348

* Forecast prepared by Aseambankers prior to privatization.

** Estimated as of September, 1988

Source: Hernan Levy, Aurelio Menendez, "Privatization in Transport: The Case of Port Kelang (Malaysia) Container Terminal"; The World Bank, 1989.

Exhibit 3A

Kelang Port Authority
Selected Income Statement Information
(Million Ringitts)

	1982	1983	1984	1985	1986	1987	1988
Operating Revenue	173.6	189.6	193.3	181.9	122.1	116.2	130.9
Working Expense	93.2	96.4	99.1	108.0	85.0	77.0	n/a
Depreciation	28.1	28.7	27.8	26.2	22.2	21.9	n/a
Total Operating Expense	121.3	125.1	126.9	134.2	107.2	98.9	102.5
Operating Income	52.3	64.5	66.4	47.7	14.9	17.3	28.4
Net Income	21.4	26.4	26.4	20.6	6.6*	8.2	n/a
Operating Income Ratio	70%	66%	66%	74%	88%	85%	77%
Net Income as % of Revenue	12%	14%	14%	11%	5%	7%	n/a

Note: n/a = not available
* If extraordiantry items less taxation are included (an amount of M$ 94.5 million) the total net income would be M$ 101.1 million. Out of this amount, M$ 65.1 million were used for redemption on loan capital and M$ 36.0 million for development and improvement In 1987, all the M$ 53.1 million surplus (including development and improvement reserves) was used for redemption on loan captial. The amount of M$ 94.5 million for extraordinary items included the M$ 91.7 million profit form the sale of container operations.

Source: Hernan Levy and Aurelio Menendez

Exhibit 3B

Port Kelang Container Terminal Operations
Selected Income Statement Information
(Million Ringitts)

	KPA Container Terminal Operations Prior to Privatization				Kelang Container Terminal After Privatization			
	1982	1983	1984	1985	1986 forecast	1986 actual	1987 forecast	1987 actual
Operating Revenue	50.2	62.2	69.6	69.6	84.9	70.2	95.2	63.8
Working Expense	21.0	23.1	21.5	24.5	n/a	n/a	n/a	n/a
Depreciation	14.2	9.5	9.6	8.7	n/a	n/a	n/a	n/a
Total Operating Expense	35.2	32.6	31.1	33.2	48.7	41.2	53.7	37.4
Operating Income	15.0	29.6	38.5	36.4	63.2	29.1	41.5	26.4
Net Income	n/a	n/a	n/a	n/a	27.5	21.0	33.2	18.4
Operating Income Ratio	70%	53%	45%	52%	68%	70%	65%	71%
Net Income as % of Revenue	n/a	n/a	n/a	n/a	32%	30%	35%	29%

Source: Hernan Levy and Aurelio Menendez

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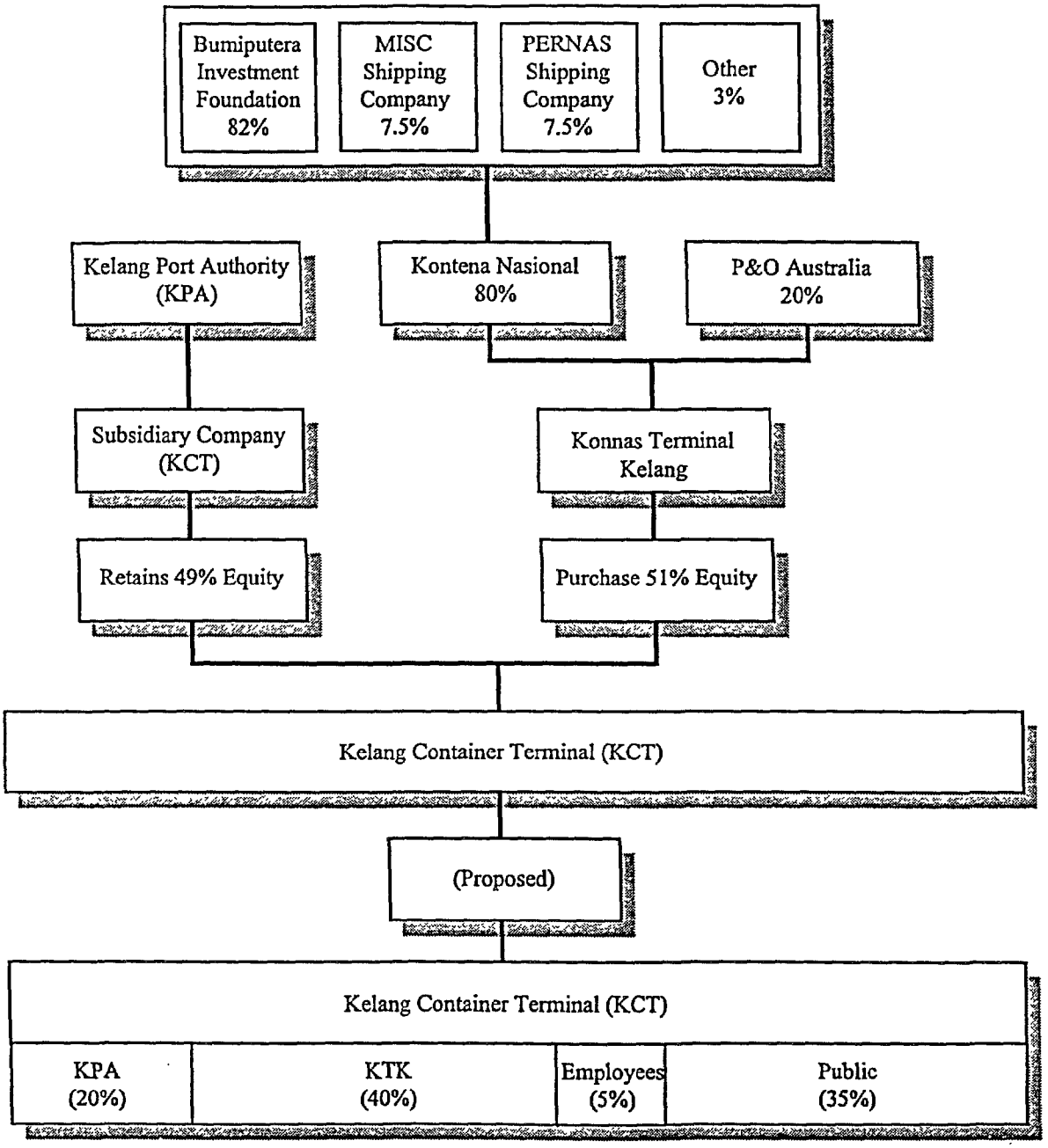
Exhibit 4

Port Kelang Container Terminal
Capital Structure after Privatization and Proposed Changes



Source: Hernan Levy and Aurelio Menendez

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