

**GAZA HOUSING PROJECT
TECHNICAL ASSISTANCE:**

**MARKET-BASED AFFORDABLE
HOUSING FINANCE LOAN TERMS**

(Project 254-0006)

Prepared for

USAID Affairs Office for Gaza
U.S. Agency for International Development, G/PRE/H
PCE-1008-I-00-2066-00, Delivery Order No: 10

Prepared by

Bassam M. Atari
Carol Oman Urban

First Washington Associates, Ltd. &
Technical Support Services, Inc. Joint Venture
1501 Lee Highway, Suite 302
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AUTHOR'S ABSTRACT

The U. S. Agency for International Development (USAID) requested the First Washington Associates/Technical Support Services Joint Venture (FWA/TSS) prepare a report regarding **Market-Based Affordable Housing Finance Loan Terms** for the Palestine Housing Council's (PHC's) Al Karama Towers apartment component of the USAID's Gaza Housing Project (GHP). Initially for lower income Gaza residents (incomes of under \$700 per month), the recommended loan terms could form the basis for development of a housing finance system. The Report is based on interviews with representatives of commercial banks, housing finance institutions, credit programs, housing development entities and donor agencies in the West Bank/Gaza, Jordan and Israel. The Report describes the housing finance and commercial lending systems in operation in the region with particular reference to interest rates, loan terms and security. Relevant factors analyzed include household incomes, inflation, exchange rate and various risks associated with credit granting. A U. S. dollar denominated loan is recommended using 3- month LIBOR as the market reference interest rate, with 2% added for administration, 1% for loan loss and 1% for profit, for a total current rate of about 9%. Other specific loan terms and conditions include a 18 year maximum term, 25% downpayment, 30% of income for loan repayment, and two or more guarantors. The full cost of the project exceeds the ability of potential beneficiaries to repay using this market-based rate. A program of capital grants (subsidies) which would in effect buy down the loan amount to affordable levels is recommended. To lower the need for capital grants in the future and conserve scarce resources, production of lower cost, more affordable units in the future is essential. A program for loan administration using two Managing Banks is proposed, along with technical assistance/training for the PHC and Managing Banks. Suggested future activities include development of a Housing Bank, Islamic housing finance and contract saving programs.

MARKET-BASED AFFORDABLE HOUSING FINANCE LOAN TERMS

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EXECUTIVE SUMMARY

The U. S. Agency for International Development (USAID) requested that the First Washington Associates/Technical Support Services Joint Venture (FWA/TSS) prepare a report regarding **Market-Based Affordable Housing Finance Loan Terms** that could be adopted for one component of the Gaza Housing Project (GHP), and which could form the basis for development of a housing finance system.

The new housing component will finance construction of Palestine Housing Council (PHC) housing in Gaza. The apartments are to be sold to lower income Gaza residents, with monthly incomes of \$700 dollars or less. The PHC and USAID have agreed that purchasers will receive "terms to be generally agreed upon between USAID and the PHC which shall include full financing terms in order to obtain maximum full cost recovery and limitation of capital subsidies to low income groups or their equivalent."

The Report describes the housing finance and commercial lending systems in operation in the West Bank/Gaza, Jordan and Israel, with particular reference to interest rates, loan terms and security. Relevant factors are analyzed including household incomes, inflation, exchange rate and various risks associated with credit granting. A comparison and analysis of the commercial and residential loan terms is made which could have application in determining reference market interest rates and loan instruments. A market reference rate and loan terms are recommended for implementing the loan programs for the GHP. Assumptions and the rationale for specific recommendations are indicated, including the concept of capital grants to address the affordability of housing for lower income households, and proposals are made with regard to implementation. The Report is based on interviews with representatives of commercial banks, housing finance institutions, credit programs, housing development entities and donor agencies in the West Bank/Gaza, Jordan and Israel.

The Current Situation

Four factors are particularly important to consider in attempting to determine a market reference rate for housing loans and the other terms and conditions that should apply: (1) limited financial institution activity and absence of a housing finance market, (2) three currencies are used but no "local" currency exists, (3) the legal system is neither uniform nor up-to-date; (4) the area is in transition with a great deal of uncertainty as to the future, including how the financial sector will operate.

In the West Bank/Gaza, no financial institutions are active in granting loans for housing. Until recently, only the Bank of Palestine in Gaza and branches of the Jordanian-based Cairo-Amman Bank on the West Bank provided any banking services. Several other Jordanian and new Palestinian-owned banks opened recently or will open soon. A number of relatively small donor-supported credit programs provide commercial loans, recently most charging rates of 9-11%, and securing loans by guarantors rather than mortgages on real property. Some developers provide buyer financing for a few years.

Three currencies, the Jordanian dinar, Israeli shekel and U.S. dollar are in circulation and accepted. Loans, rents, and other financial transactions tend to be denominated in U.S. dollars, while people earn Jordanian dinars and Israeli shekels. Loans are disbursed in dinars or shekels at the prevailing rate and the repayment amount is determined at the rate prevailing at the due date. As a result, borrowers carry the exchange risk. The limited market-based financial activity results in no locally determined market base interest rate routinely being used as a reference rate for deposits or loans. No uniform, current legal

system is in place, with 1967 Jordanian law applying to the West Bank and 1941 ordinances from the British mandate in Egypt applying in Gaza, supplemented with Israeli military orders.

In Jordan, the Housing Bank dominates the housing finance market, offering regular and low income loans for up to 15 years. Low income loans carry an interest rate of 7%, while regular loans are at 10% with a 1% commission. A reduction in tax rate for the Housing Bank is the only government housing finance incentive. The marginal cost of funds is estimated at 7.4%, the average cost of funds at about 5% and administrative costs at 2.4%. The Jordanian Housing and Urban Development Corporation (HUDC) provides low income housing, applying full cost recovery concepts.

In Israel, mortgage companies, primarily owned by commercial banks, offer housing loans and administer government housing programs designed to benefit specific segments of the population. These programs until recently included very substantial subsidies and a significant impact on the government budget. Mortgage financing is available up to 20 years at rates which are adjusted monthly to reflect changes in the cost of living. A function of Israeli experience with high inflation rates relative to the region, current rates may reach 19%. Due to a number of factors, including complex property titling and reluctance of courts to foreclose, multiple guarantors have been used to provide housing loan security for lenders.

Several issues have particular, immediate impact on determining loan terms for the Al-Karama Towers project. Little data are available on **household incomes**. Preliminary evaluation of applications for housing loans made to PHC indicates about 90% of the applicant households reported incomes of under \$700 per month and about 50% were in the \$400-\$700 per month range.

The **full cost of the Al Karama Towers Project** was estimated at about \$9,100,000 or almost \$400 per m². This full cost approach encompasses all costs related to the project, including land, design, permits, administrative costs, and a portion of the operating costs of PHC. In addition, a 10% "profit" figure has been included which is used as a proxy for the cost of capital and inflation. While the "capital" is free to PHC as a grant from USAID, foregoing earnings at a level that could be earned elsewhere is also a cost, as could be the reduction the value of these resources due to inflation. If the objective is to have a true picture of costs and a market price for units, such costs should be considered, as they would be by the private sector. Offering artificially low prices which the private sector cannot match distorts markets and is a disincentive for the private sector to produce low income housing.

The current uncertainty as to the legal system and how it will be applied in practice means that lenders, realizing the problems with potential foreclosure, will probably not view a mortgage as sufficient collateral. **Guarantors** acting like co-obligors will be needed to secure housing loans, at least initially.

No generally agreed upon prime or base reference rate is used by financial institutions to price loan and deposit services. There is no inter-bank market, or locally issued and traded short-term securities. Using deposit interest rates in the country of the currency in question as a reference rate seems appropriate, at least in the short term until the local market develops.

As housing loans are to be denominated in U.S. dollars, U.S. interest rates are most applicable. Deposit rates of three months were chosen as little market exists for longer deposits in Jordan and the West Bank/Gaza, and this measure is routinely used in international comparisons of deposit rates. The 3 - **month LIBOR** is most appropriate.

Loan administration costs typically equal about 2%-2.5% of the lending rate at depository institutions in Jordan and elsewhere. **Loan losses** are low in the West Bank/Gaza lending programs with higher rates (9%-11%). Likewise, housing loan programs in Jordan that charge market rates of 10% or more and in Israel with inflation indexed loans of 16%-19%, all have low default rates. A 1% cost for loan losses and a 1% profit margin are considered reasonable by lenders in the region.

Any program that is implemented should recognize the particular circumstances in West Bank/Gaza today. Such factors as a new legal system, changes in and opening/closure of boundaries, elections, and freer movement of people and goods, are only a few of the many possible changes that could affect the housing finance market and specific programs. Adopting flexible policies and procedures, as well as encouraging programs which have been successfully tested elsewhere is appropriate where situations may soon change.

Recommendations

Based on the analysis of the situation in the West Bank/Gaza and the region, the following key recommendations are made for establishment of a market reference interest rate, specific loan terms and conditions, capital grants (subsidies), technical assistance/training and future activities.

Currency. Loans are **denominated in U.S. dollars**, but disbursed and payable in Jordanian dinars or Israeli shekels. The U.S. dollar is recommended for the following reasons: (1) maintains value by protecting the lender from inflation, (2) used widely in other loan programs in Gaza/West Bank; (3) commonly used for pricing rents and other fees, (4) has lower interest rate than Jordanian dinars and Israeli shekels, (4) would be easily converted to any new Palestinian currency, and (5) favored by PHC. Using the U.S. dollar is a temporary measure; long -run, it is preferable to have housing loans denominated in local currency.

Reference Interest Rate. It is recommended that the PHC housing loan carry a **Commercial Rate of Interest** which reflects the opportunity cost of capital, administration costs, provisions for bad debts, and profit. Interest Rate is **Floating (Adjustable)** and may be changed annually at the option of the PHC in coordination with the Managing Bank(s) based on changes in Opportunity Cost of Capital. The **Opportunity Cost of Capital** is defined as the Cost of Funds at the margin, i.e. the cost of raising additional funds. Marginal cost of funds for the U.S. dollar is defined as the **3-month LIBOR rate**.

The **current estimated Commercial Rate of Interest** based on rates and practices in local, regional and international credit markets is 9%, based on (1) a 3 month LIBOR rate of 4.93%, (2) a reserve for losses of 1%, (3) administrative costs of 2%, and (4) profit of 1%. An initial rate of **9%** is recommended.

Interest Ceiling and Loan Maturity. The interest rate and term are **capped** so that accumulated interest over the life of the loan does not exceed principal in accordance with Ottoman Law in force in the West Bank. The maturity of the loan is a maximum of 20 years, but may be less depending on what the borrower prefers and can afford and the impact of the interest ceiling. At 9%, the maximum term is 18 years.

Loan to Value Ratio & Down Payment A down payment is 20%-25% of the unit selling price (to minimize the subsidy level as practically as possible), for loan to value ratio of 75%-80%.

Establishing a **contract savings program** administered by the **Managing Bank(s)** to help beneficiaries build up the down payment needed during the construction period of the project should be considered.

Guarantors. No less than **two guarantors** are required, at least one of which must have steady income and the salary directly deposited at the Managing Bank so that attaching the salary of the guarantor is possible in the event of the borrower's non-payment. That demand on the guarantor for payment of past due installment(s) can be made before foreclosure proceedings are completed should be stated clearly in the loan contract. This is necessary as long as lenders are not certain that foreclosure may be implemented. As **Collateral**, title remains in the name of PHC until final repayment is received.

Delinquency. Non-payment for 3 months equals default and can trigger calls on the guarantee. The Managing Bank(s) have the right to demand payment from guarantors prior to instituting foreclosure proceedings. In the event of foreclosure, the **defaulted borrowers will have no rights to the Capital Grant subsidy** already provisioned for in the loan contract. This is necessary in order to prevent the delinquent beneficiary upon foreclosure from obtaining a windfall represented by the initial subsidy.

Managing Bank(s). At least **two Managing Bank(s)** should be selected to administer the loan program which would support financial institution-building, competition, convenience to borrowers, and residential lending abilities of banks, as well as provide PHC with a future reference for choosing Managing Bank(s).

Managing Bank(s) are responsible for **evaluating creditworthiness** of PHC selected beneficiaries and guarantor, **training beneficiaries** on loan responsibilities and mechanics, **preparing** and **closing** loans, **servicing** loans and **reporting** regularly on loan status to PHC, USAID, and borrowers. With concurrence of PHC, Managing Bank(s) **institute legal proceedings**, including seizing and reselling property.

These tasks are the same ones that the Managing Banks would undertake if they were making and servicing a loan for their own credit risk, using their own funds. Significantly more tasks are involved than are currently being performed by the Bank of Palestine for the various credit programs.

Fees. Managing Bank(s) receive fees (estimated to be 2%) for managing the loan program, as negotiated with PHC. The Bank of Palestine has indicated a willingness to perform these functions at a much lower rate. Before accepting any rate much below 2%, it will be important to clarify in very specific terms the tasks to be performed and what other compensation could accrue to the Managing Banks (e.g. profit on dollar/shekel/dollar conversion, interest paid on PHC accounts, etc.).

Capital Grants (Subsidies). The **Capital Grant** is defined as the difference between the amount of loan based on full cost recovery at the commercial interest rate and terms and the amount of the loan the beneficiary can afford. The capital grant is in fact equivalent to a **buy-down of the loan amount**. When the recommendations relating to interest rates and terms are applied to the Gaza Housing Project and take into consideration the incomes of the potential beneficiaries that have made application to the PHC, it is clear that the **Al Karama Towers** units when priced for full cost recovery will **not be affordable** to most applicants. The **subsidy amount** totals almost US\$3,600,000 when loans cover 75% of the value at a 9% interest rate for 18 years, compared to a total cost of about \$9,100,000 and total loan amount of about \$6,800,000. Assuming that the distribution of borrowers with incomes of \$400-\$700

is the same as a preliminary analysis of PHC applicants, the subsidy is 39% of the total project and 52% of the loan amount.

This is the apparent subsidy. However, if an adjustment is made reflecting the net present value of the net interest income earned by the PHC on the USAID grant funds (i.e. the net present value of 6% which is 9% less 2% for administration and 1% for loan losses), the actual loss of capital through subsidy is less. This calculation lowers the total subsidy to about 20% of the total project and 42% of the loan amount.

This high level of subsidy suggests that future projects must find ways to lower costs through changes in standards, design, minimum interior finishing, lower priced land, cross-subsidies, etc.

The temptation to lower interest rates to reduce the subsidy is best avoided. Such rate reductions would have the potential for distortion in market interest rates and may have long term consequences far more costly than the capital grant, which is direct, immediate and transparent.

Technical Assistance. Technical Assistance to **Managing Bank(s)** is needed on the following:

- rights and responsibilities under the program, to ensure that loans are handled in the same manner as the loans for the Managing Bank(s)' own risk;
- developing proper documentation for long-term housing loans;
- developing and implementing policies and procedures for origination and servicing housing loans;
- developing and implementing of marketing and customer service activities;
- designing and implementing accounting and MIS systems as necessary; and
- establishing policies and procedures, as well as training in loan collection and recovery.

Training/Study Tours. Managing Bank(s) should receive training with housing finance institutions, such as the Housing Bank of Jordan, for practical knowledge of housing finance operations. PHC staff should participate in Training/Study Tours on housing finance policy and practices at institutions such as HUDC.

Future Housing Finance System. In order to assure future development of an efficient, sound housing finance system, with efficient institutions, the following should be undertaken:

- Conduct a Housing Finance System Needs Study including consideration of institutional requirements.
- Consider creation of a Housing Bank with majority private ownership, conduct feasibility study, and provide subsequent technical assistance for implementation in areas including development of articles of association, policies and procedures related to programs for deposit-taking and lending and overall operations of a housing bank. The Housing Bank might best be authorized from the beginning also to undertake normal commercial banking and Islamic banking activities.
- Explore other options to mobilize funds for housing finance including contract saving programs, guarantee mechanisms and secondary market operations.

I. INTRODUCTION

The U. S. Agency for International Development (USAID) requested that the First Washington Associates/Technical Support Services Joint Venture (FWA/TSS) prepare a report regarding Market-Based Affordable Housing Finance Loan Terms that could be adopted for one component of the Gaza Housing Project (GHP), and which could form the basis for development of a housing finance system.

In January 1994, USAID authorized the \$25.5 million GHP which aims at improving shelter conditions in the Gaza Strip and the West Bank. The GHP combines four components for immediate implementation - new housing, home improvement loans, private housing and neighborhood upgrading - with technical assistance to Palestinians and their governing entities in developing housing and urban environmental strategies and policies. This report specifically addresses the financing terms for the new housing component.

The new housing component will finance construction of Palestine Housing Council (PHC) housing consisting of 192 apartments in six high-rise buildings in Gaza. The apartments are to be sold to lower income Gaza residents, defined as households with monthly incomes of \$700 dollars or less. In the Memorandum of Understanding between the PHC and USAID, it is agreed that deserving purchasers will receive "terms to be generally agreed upon between USAID and the PHC which shall include full financing terms in order to obtain maximum full cost recovery and limitation of capital subsidies to low income groups or their equivalent."

A. Objectives and Scope of Work

Specifically the objectives of the report are to recommend and describe for the Gaza Housing Project (1) affordable housing finance lending terms and (2) loan instruments which:

- reflect market conditions and opportunity cost of capital for financial institutions in the West Bank and Gaza
- are consistent with development of free market financial system mobilizing savings for private sector commercial and housing lending

The Statement of Work specifically requires the following:

- describe and analyze commercial and housing loan terms and instruments used in neighboring countries, and current formal and informal lending practices in the West Bank/Gaza, including interest rates, mortgage security, terms, subsidies and payment or interest rate indices.
- describe and analyze the opportunity cost of capital for loan funds for the GHP and for private sector financial institutions.
- recommend a reference market interest rate or adjustable interest rate indices for housing and home improvement loans, describing assumptions including inflation rate trends, currency denomination of loans, loan administration costs and risks of default, and effects of assumptions on recommendations.
- recommend and describe fixed or variable rate loan instruments, describing

- assumptions, including loan payment to income ratios.
- recommend and describe a system to calculate and administer a program of capital grants, if necessary, to maintain affordability of PHC units to households with monthly incomes of \$700 per month or less.

B. Methodology

The FWA/TSS team consulted with the PHC obtaining their perspective on mortgage loan financing and information about the beneficiaries, based on their extensive work with over 6,000 applications received for PHC housing. Meetings were held with the USAID Affairs Office for Gaza, A.I.D. economists, UNRWA, UNDP, and ANERA credit program managers, and the World Bank task managers for projects related to the Occupied Territories to obtain their views on the theoretical and practical aspects of developing housing finance loan terms. Given the current lack of formal residential mortgage lending in the West Bank and Gaza, commercial banks and operators of credit programs with a variety of purposes were interviewed to obtain information on interest rates, currency, tenor, collateral and repayment experience. Meetings were held with commercial banks and specialized housing finance and housing development companies in Jordan and Israel. The information gathered can, to a certain extent, provide a proxy or reference point useful to consider in developing market-based mortgage financing instruments and terms. In addition, the FWA/TSS team considered FWA/TSS's experience with housing finance terms and instruments in other geographic regions. Studies conducted for the World Bank, USAID and other donors were also reviewed.

The above referenced activities provided useful input to the recommendations set out in the report. It should be noted that rapid change and uncertainty regarding economic, political, financial and legal conditions in the West Bank/Gaza lead the consultants to suggest that flexibility in loan finance will be both useful and necessary to successful program implementation.

C. Outline of the Report

Chapter II of the Report describes the housing finance and commercial lending systems in operation in the West Bank/Gaza, Jordan and Israel, with particular reference to interest rates, loan terms and security. Chapter III presents relevant economic factors in West Bank/Gaza, Jordan and Israel which could have application in determining reference market interest rates. These factors include household incomes, inflation, exchange rate and various risks associated with credit granting. Chapter IV provides a comparison and analysis of the commercial and residential loan terms and instruments in the region as described in the previous two chapters, indicating the advantages and disadvantages of each. This Chapter also contains an analysis of the opportunity cost of capital. Chapter V sets forth the recommendations with regard to the Gaza Housing Project. Assumptions are indicated and the specific rationale and effect of specific recommendations with regard to interest rate and terms and conditions for the loan instrument are presented. In addition, the concept of capital grants as an approach to address the affordability of housing for lower income households is explored and proposals made with regard to implementation.

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II. COMMERCIAL AND RESIDENTIAL LOAN TERMS AND INSTRUMENTS IN THE REGION

A. Background¹

In 1967, the financial institutions operating in the West Bank and Gaza were closed. At that time, eight Jordanian and foreign-owned banks operated 26 branches in the West Bank and three Egyptian and foreign-owned banks had three branches in Gaza. The banks on the West Bank operated under the Jordanian Banking Law of 1965 and were supervised by the Central Bank of Jordan. In Gaza, the commercial banks operated under the Banking Ordinance of 1941, established by the British mandatory authority, and were under Egyptian administration. Israel declared the Israeli currency as the legal tender in the Occupied Territories and the Israeli foreign exchange controls were applied. These exchange controls were more strict than those applied in Jordan. The Jordanian Dinar continued to circulate as legal currency in the West Bank and unofficially in Gaza. The net result of these actions was to leave the residents of the West Bank/Gaza without a functioning financial system.

Prior to 1967, the commercial banks in West Bank/Gaza were active financial intermediaries, with 1966 deposits in the West Bank totaling US\$39 million and bank credit reaching \$28 million or about 30% of the region's GDP. In 1981, the Bank of Palestine was allowed to reopen in Gaza, and in 1986, Cairo-Amman Bank also was allowed to reopen. Israeli banks operated in the West Bank/Gaza after 1967, opening 11 branches in Arab towns. However, their lending was limited (estimated to equal only 1 percent of GDP between 1967-1987, reaching \$48 million in 1987). Following the Intifada, almost all of these branches closed and business dropped to 20% of the previous low level.

Clearly, for many years only very limited financial services have been available in the West Bank and Gaza. At year-end 1992, deposits with commercial banks totaled \$143 million (a rapid increase from \$108 million in 1991 due to influx after the Gulf War), and loans of only \$17 million. Until recently, both banks exercised very conservative banking practices with limited lending due to the unstable security situation.

This situation is changing however, as the peace process moves forward. The Bank of Palestine now operates 6 branches in Gaza and one in Jericho, while Cairo-Amman Bank has 9 branches open on the West Bank and expects to have 13 in two months. Several other Jordanian banks have received permission to reopen branches, and several have already done so or plan to do so in the next few months. Among these banks are the Arab Land Bank (operating in Jordan with Egyptian government ownership), Bank of Jordan, Arab Bank, and Jordan-Gulf Bank. In Gaza, the Arab Land Bank is opening two branches and Cairo-Amman one branch in August, 1994, and Bank of Jordan has made applications for two branches in Gaza. Also, at least one new commercial bank has received permission from the Israeli authorities to begin operation in the West Bank, and others are seeking permission. In addition, specialized investment and development banks are being established, with international shareholder participation.

¹ Background based primarily on World Bank, Developing the Occupied Territories: an Investment in Peace, Vol. III: Private Sector Development, pp. 70-106.

On December 2, 1993, the Central Bank of Jordan and the Bank of Israel signed a memorandum of understanding on the reopening of branches, and licensing and supervision of banks.

International donors have supported a number of credit programs, implemented by Palestinian non-profit organizations, Non-Government Organizations (NGOs) or international agencies. These include the Economic Development Group (EDG), Agricultural Development and Credit Company (ADCC), Technical Development Corporation, ANERA, and UNRWA.

B. West Bank and Gaza

It should be emphasized that no housing finance market is operational in the West Bank/Gaza. Commercial and consumer lending is very limited and lending for housing almost non-existent. The following description of commercial banking in West Bank/Gaza relates to deposit-taking and commercial lending. This provides a context for future lending for housing and suggests the parameters for a reference interest rate.

The banking practices in the West Bank/Gaza are changing as competition is developing. Additional services are being offered and deposit interest rates have increased as new banks open and seek market share. As yet, increases in lending are not generally evident, with commercial banks preferring to remain cautious until the political situation is further stabilized and the legal situation clarified. The Bank of Palestine has rapidly increased lending, albeit from a very low base. Loans outstanding totaled less than \$10 million at year-end 1993.

The deposit rates, lending rates, and loan terms reported in interviews are shown in the table on the next page. These rates should be viewed somewhat cautiously as they reflect very limited current experience, a changing financial environment, the regulations in effect at the Central Bank of Jordan and the Bank of Israel, and the policies of parent banks in Jordan.

1. Commercial Banks

Deposit Rates

Given the limited financial services available, the few banks which operate offer few deposit products and have limited sources of funding. Banks now offer U.S. dollar, Jordanian dinar and shekel accounts. It should be noted that the Bank of Israel requires that withdrawals from U.S. dollar accounts be paid out in shekels, rather than dollars. Thus the U.S. dollars contribute to Israeli foreign exchange reserves. There is no market for medium-long term deposits, either from individuals or institutions. Most deposits are demand and savings accounts and fixed deposits normally have a term of three months or less. Interest rates on deposits indicated in the table are the current rates being charged by the various commercial banks in West Bank/Gaza whose representatives were interviewed. The interest rates appear to reflect the relative rates prevailing in the Eurodollar, Jordanian and Israeli financial markets.

Commercial, Construction Loans. Loans for construction are offered at the same rates and terms as commercial business loans. Loans, rather than overdrafts, are typical.

Loan Currency Denomination. Loans are typically denominated in U.S. dollars, and disbursed and repaid in shekels or Jordanian dinars. Only limited shekel lending occurs as a discount to the face value of shekel checks for collection as security, normally for a few days (up to two months).

WEST BANK/GAZA FINANCIAL RATES AND TERMS		
Commercial Banks		
Deposit Rates	U.S. \$ 3 mos. JD 3 mos. 6 mos. 1 yr. savings Shekel 3 mos. Demand Accounts	2% 3 1/2% - 4%, 5 1.2% 5 1/2% 6% 3% 8%, 11%, 9 1/4%-10% 0%
Commercial Lending Rates	U.S. \$ denominated up to 3 years Shekel Overdraft on 50-60% of post-dated checks, up to 2 mos.	11% + 2% commission 9% + 3 1/2% commission 19%
Max. loan as % of project	50%-60%	
Credit Programs		
Lending Rates	U.S. \$ loans up to 3 years U.S. \$ 1-2 years U.S. \$ 3-5 yrs.	11%+ 1% commission, 2% late payment fee 9-10% + 1% commission 8%
Max. loan as % of project	50%-80%	
Informal Sector		
Supplier Credits	Shekel discounts on maximum net 30 days purchases	10%-250% annualized

Loan Interest Rates. The commercial banks operating in the West Bank/Gaza charge 9-11% for loans up to three years, plus "commissions" of 1% - 3 1/2% payable when the loan is granted. Loan pricing is standard with little variation based on term, purpose of loan or creditworthiness. Only the most valued customers receive somewhat lower rates. Interest rates are determined by each institution. However, the rate and term are in effect capped by law. (See Legal Issues in Chapter III.)

Loan Maturity. Banks typically offer loans rather than overdrafts for terms up to three years, although most business loans are for much shorter terms.

Loan to Value Ratio. Commercial banks typically lend for 60% or less of the value of the real estate purchase, in the few instances where such loans have been made. This low level of financing seems

to reflect the practices of Jordanian banks and the fact that these real estate purchasers are basically seeking bridge financing for a few years, rather than a long term mortgage type loan.

Collateral/Security for Loans. Commercial banks and donor-supported credit programs normally seek two or more guarantors for loans granted to individuals. At least one of the guarantors (and often all guarantors) must have regular income which can be deposited directly to the bank. This enables the bank to freeze the guarantor's account in the event of non-payment by the borrower. The guarantors sign the loan contract which in effect makes them co-obligors in that the lender can seek payment from the guarantor before instituting legal proceedings against the borrower. Requests for payment from guarantors usually result in receipt of payment from borrowers. Commercial banks and donor-supported business credit programs report low delinquencies and virtually no losses.

In addition, the lenders take a notary deed which allows the lender to seize the property financed and the borrower agrees to forego any rights to go to court. The lenders may also take a promissory note which is a legal obligation which can be pursued in the court system. Lenders and others interviewed indicate that it is possible to take a mortgage on real estate and to pursue it in court. In practice, this is not done. In the case of apartments on the West Bank, no condominium law is in effect which prevents owners from registering title or the lender from registering a mortgage. A notary deed incorporating an undivided percentage of the land is used in lieu of a mortgage.

Compensating balances may be required for business loans. However, for loans to individuals for real estate transactions with adequate guarantors, the commercial banks report that compensating balances are usually not required. Cash collateral is used when other means to secure the loan are not available.

2. Credit Programs

Loan Currency Denomination. The credit programs typically grant dollar denominated loans, with disbursements and repayments in Jordanian dinars and shekels.

Loan Interest Rates. Some credit programs, such as the Economic Development Group (EDG) funded by the EC, carry interest rates substantially below those charged by commercial banks. Others, such as ANERA and UNRWA, charge interest rates similar to commercial banks.

Loan Term. Most of the credit programs lend small amounts for periods of up to three years. Programs with longer terms have not been used extensively.

Loan to Value Ratio. Loan to value ratios are similar to those of commercial banks, but in some credit programs may be higher (up to 85% of project value).

Collateral/Security for Loans. As noted, the successful credit programs use guarantors as the main security for loans.

Delinquencies. Programs developed in the 1990s have had good repayment experience. Managers of these programs attribute good repayment experience to counseling borrowers prior to granting loans, use of guarantors, and follow-up on late loan payments. Some earlier programs with low interest rates experienced extensive losses as borrowers viewed programs more as grants than loans.

3. Informal Sector

In the absence of any formal housing finance market, some developers extend financing on an informal basis. Developers of houses and apartments for relatively high income individuals provide financing for up to 50% of the value on terms of up to five years at 11-12% interest. One developer reported discounting the price for full cash payments, and financing about 85% for two-three years. Developers make this financing available using their own resources due to the absence of other funding sources. This use of funds limits the capacity of developers to build additional units.

Absent any bank financing, West Bank/Gaza businesses have used credit from Israeli suppliers as one source of funding. Such credit is given on terms such as a percentage discount for payment in cash upon purchase and "full price" for payment in 10-30 days. As in many parts of the world, this is often a high cost source of financing. If these "discounts" are annualized, supplier credit rates were reported to range from 10% to 250%. Apparently, the cost charged by some Israeli suppliers may be higher in West Bank/Gaza than in Israel.

Money changers provide financial services in the absence of operating commercial banks. However, their role is primarily to facilitate exchange of currencies, transmission of funds across borders, and check cashing on external accounts. They undertake very limited credit operations for select clients.

C. Jordan

The Housing Bank in Jordan is the primary lender for housing, offering extensive long term loans at commercial rates and operating special programs for low income households. The public sector only has a small shareholding in the Housing Bank, which is operated on a purely private sector basis. The basic programs of the Housing Bank are described below, and detailed in Attachment B. Commercial bank and Housing and Urban Development Corporation (HUDC) activity are also fully described in Attachment B.

1. The Housing Bank

The Housing Bank offers three types of housing loans: regular housing loans, low income housing loans and loans for construction of investment properties by developers and individuals. For financing houses for individual households, two programs are offered, one for low income and the other for everyone else.

Regular Loan Program. For households that are not low income, the regular loan program is available. Under this program the maximum housing loan offered is 30,000 JDs for one unit at an interest rate of 10% plus 1% commission for 12 years with a 1 year grace period. The loan to value ratio is 75% and maximum percentage of fixed income for monthly repayment is 30%.

Low Income Loan Program. For the low income housing loan program, the maximum loan amount is 10,000 JDs to a household with a maximum income of 375 JD per month, for a single housing unit not exceeding 200 m² (plus 50 m² for basement). The borrower must be buying a home for the first

time. The loan term is 15 years, with 1 - 1 1/2 years grace period. By law, loans are allowed to extend to 20 years, but the Ottoman legal provision remaining in Jordanian law stipulates that interest over the life of the loan should not exceed principal. As a result, at current rates loans over 15 years would be prohibited.

The interest rate for low income housing loans is fixed at 7%. The Housing Bank retains the right in the loan agreement to float the interest rate, but in practice it is not done. The 7% represents some subsidy, but it is made up through cross subsidy, and at 7% is probably not lower than the average cost of funds (estimated to be about 5.5%). The maximum loan to value is 75% and the maximum percentage of household income for loan repayment is 30%. Almost 95% of these loans finance housing developed by the Government's Urban Development Department (now HUDC).

There have been virtually no delinquencies with less than 100 foreclosure actions since beginning operations. Even with foreclosure, most borrowers repay in the one year period the bank must wait before it can legally sell a foreclosed property.

Funding and Administrative Costs. The Housing Bank is funded by deposits from individuals, institutions and government. The cost of funds at the margin is about 7.5%, and administrative cost is about 2.4%. The average cost of funds is estimated at somewhat above 5%.

Government Programs and Subsidies. The main government benefit the Housing Bank has is tax exemption on 50% of net income from housing loans. The maximum benefit to the Housing Bank of the tax exemption is equivalent to less than 1.5% on the rate for a low income housing loan. There are no other subsidy programs for housing finance.

2. Commercial Banks

Commercial banks provide some financing for real estate, primarily for 50% or less of construction cost to affluent individuals and developers of high cost housing units, on terms up to 5 years at commercial rates ranging from 10% to 13%.

Commercial banks indicate the marginal cost of funds to be about 8% or more, with some banks (with a large number of deposit and savings customers) reporting the average cost of funds near 5.5%. Administrative costs were reported in the 2.0%-2.5% range, with the cost of reserves/bad debts at 1.0% or less. While banks were generally reluctant to disclose profit margins on loans, a range of 1.0-1.5% was agreed as an approximate profit level on lending.

3. Housing and Urban Development Corporation (HUDC)

HUDC, a statutory corporation wholly owned by government, is responsible for housing policy development. HUDC is the main provider of low income housing units using a market oriented approach, including full cost recovery and offers some finance services. Privatization of the housing developer function is under active consideration. They are considering a voucher system to subsidize borrowers by direct means. This is considered necessary so uniform loan terms will be applied when the private sector supplies low cost housing. HUDC operates a contract savings scheme to assist pre-qualified borrowers accumulate savings for a downpayment while the project is under construction.

D. Israel

The Israeli housing finance system is outlined below and a detailed description is in Attachment B.

1. Mortgage Banks

In Israel, mortgage banks provide most of the loans for housing, either using their own funds, or managing government loan programs. The vast majority of the mortgage banks are subsidiaries of commercial banks. Mortgage banks obtain funding from institutions (insurance companies, pension funds, etc.).

Deposit and loan rates are expressed as a base rate plus "linkage" which is based on the consumer price index. The linkage rate changes each month. Both the principal and the interest are linked, such that the principal amount of the loan may be more after several years of payments than it was initially. Intense competition has led to reduction in spreads to less than 1%, compared with margins of 2-3% only a couple of years ago.

Lenders depend on guarantors rather than foreclosure on the property as collateral to secure the mortgage loan. While foreclosure is a legal possibility, courts in practice have been reluctant to agree to foreclosure. Until recently, lenders have taken recourse to the guarantors in the event of non-payment. However, the legislature recently enacted legislation which provides that the lenders must proceed with foreclosure before they can have recourse to the guarantors.

2. Government Programs

The Government of Israel provides financing support for first time home buyers through a number of programs. Eligibility is determined through a point system based on such factors as number of brothers and sisters, service in military, newlyweds, number of children, newcomers. The mortgage bank determines government program benefits the purchaser is entitled to receive and then evaluates the creditworthiness of the borrower using the mortgage bank's normal lending criteria. The mortgage bank receives a fee for managing the government loan program.

Rates and Terms. Right now the maximum loan under the government programs is Sh 70,000 at an interest rate that is 80% of the consumer price index for 25 years, which now would be equivalent to 4% plus linkage or about 16%. The maximum amount is now generally insufficient to purchase a home. As a result, most home buyers also take out a supplemental loan at the normal mortgage bank rate. A typical blended rate now would be 4.8% plus linkage for a 20 year term.

The loan to value ratio for a government loan is normally 75% and for a private mortgage bank loan it is 50%. The usual percentage of income dedicated to loan repayment is 25%. Loans are denominated in dollars and repaid in shekels, which means that the mortgage banks have inflation protection. The practice of denominating in dollars and adjusting rates monthly according to the cost of living index was adopted when Israel experienced hyper-inflation in the early 1980s.

The Ministry of Housing runs the Israeli Government housing subsidy programs using budgeted moneys managed by the Ministry of Finance. Housing subsidies have been very substantial in the past and with budget reform housing has been de-emphasized and the relative amount of subsidy decreased.

III. RELEVANT ECONOMIC AND OTHER FACTORS

A. Incomes

The income levels of households in the West Bank and Gaza must be taken into consideration in determining what interest rates and loan terms would be most appropriate. No comprehensive, current information on incomes is available. The World Bank reports that the average household median income in the West Bank and Gaza to be about \$900 per month. Specifically, the World Bank estimates 1990 income per capita in Gaza to be \$1,300 and \$2,200 in the West Bank and average household sizes of 5.5 persons in Gaza and 5.6 in the West Bank, average household income is estimated to be \$7,150 in Gaza (\$596 per month) and \$12,320 (\$1,027 per month) in the West Bank.² Information on distribution of incomes by percentile is not available. Preliminary evaluation of the applications received by the PHC for housing units showed the median income to be \$420 per month. About 90% of applicant households had incomes of less than \$700 per month and about 50% had incomes between \$400 and \$700 per month. Incomes may have increased somewhat due to inflation, particularly through increases in salaries of persons working in Israel. However, it is reported anecdotally that income increases appear to lag inflation and the effect of repeated closures preventing workers from going to Israel to work may indeed mean incomes have not increased in the last two years.

The PHC has now completed social surveys of the applicants and is in the process of computerizing the data for analysis. When available, this income data should provide a better picture of applicants incomes. What is clear is that incomes are low relative to the cost of housing in Gaza and the West Bank, and as a result, affordability of housing is a real issue.

B. Cost of Housing

The chart in Chapter V shows the estimated cost of the al Karama Towers housing project. This full cost approach encompasses all costs related to the project, including a portion of the operating costs of PHC. In addition, a 10% "profit" figure has been included which is used as a proxy for the cost of capital and inflation. While in this case, the "capital" is free to PHC in the sense that it is a grant from USAID; foregoing earnings at a level that could be earned elsewhere on the resources can also be considered a cost. Likewise, had the PHC borrowed these resources, there would have been an interest cost to acquire such resources. Also, inflation could usefully be considered as a cost since over time the value of the capital resources is diminished by inflation. This is particularly true with respect to buying land for new construction at higher prices. If the objective is to have a true picture

² World Bank, op. cit., Vol V: Infrastructure, p.108.

of costs and a market price for units, such costs must be considered. The private sector would definitely consider all the above in pricing units for sale. PHC should employ similar techniques to the private sector. Offering artificially low prices that cannot be matched by the private sector will distort the market and make it unattractive for the private sector to produce low income housing. The full cost of \$394/m² at Al Karama Towers may be quite high relative to costs reported by private developers in the West Bank and Gaza for similar size units. It was reported that one builder in Gaza is offering 30% larger units at \$365/m², including a substantial mark-up. Several other observers believed that production of lower cost units, through reduction in finishing, size, or other means would be necessary to make units more affordable. In Jordan, the costs for low income units are estimated to be \$200-\$250/m² or 40%-50% less than the Al Karama Towers project. The high cost of the Al Karama Towers project makes it unlikely that most PHC applicants from Gaza will be able to afford the units if the full cost is to be recovered even with very low interest rates and extended payment terms. Affordability and loan terms are discussed extensively in Chapter V.

C. Inflation and Exchange Rates

Local inflation needs to be taken into account by PHC in determining prices for units, particularly inflation in land values. Likewise, inflation needs to be considered relative to the currency in which housing loans are denominated so that the reduced purchasing power of repayments does not result in reduction in the value of PHC's capital. No current, accurate statistics are available on inflation in the West Bank and Gaza. The World Bank estimated inflation at 13% in 1990, and for 1992, USAID economists mention a rate of 14.1% in Gaza and 13.9% in the West Bank. Some local observers believe this to be understated by as much as 50% and that the reported inflation lags actual inflation by three months.

At the risk of over-simplifying, normally market interest rates reflect the inflation rate (to maintain value of capital) plus the costs of funds, the cost of administration, risk of loss and profit.

It is important to consider inflation in the country of the currency being utilized and the cost of acquiring that currency, rather than the inflation and interest rates where the loan is made. Where there is free market determined exchange rates, the relative exchange rates will reflect the differences in inflation and interest rates, among other factors. Thus, if loans are denominated in dollars, the interest cost associated with dollars, the inflation rate in the U.S. and changes in exchange rates are more relevant than local interest, inflation and exchange rates.

Israeli interest rates have been substantially higher than in Jordan, as has inflation, particularly in the era of hyper-inflation in the early 1980s. The Israeli shekel - U.S. dollar exchange rate has been relatively more volatile than the Jordanian dinar dollar exchange rate. The absolute decline of the shekel to the U.S. dollar has also been substantially greater than the JD to U.S. dollar.

Inflation and exchange rate changes could obviously affect the borrowers ability to repay loans if household earnings, expenses and the loan are denominated in different currencies. For example, the decline of the shekel relative to the U.S. dollar would mean that a person earning shekels would have to repay more shekels for the same U.S. dollar equivalent loan repayment. This exchange risk usually is the responsibility of the borrower and not the lender.

The following chart indicates relative inflation and exchange rates for the U.S., Jordan and Israel.

INFLATION & EXCHANGE RATES CHANGES FOR JORDAN, ISRAEL U.S. & WEST BANK/GAZA, 1990-1993					
	1989-90	1990-91	1991-92	1992-93	Avg.1989-93
Rate of Inflation					
Jordan	16.1%	8.2%	4.0%	4.7%	8.3%
Israel	17.3%	18.9%	11.8%	11.1%	14.8%
United States	5.4%	4.3%	3.0%	3.0%	3.9%
West Bank			13.9%		
Gaza	13%		14.1%		
Exchange Rate/\$					
Jordan Dinar	-2.6%	-1.5%	-2.3%	-1.8%	-2.0%
Israel Shekel	-4.3%	-11.5%	-21.1%	-8.0%	-11.2%

In the case of the West Bank and Gaza, there is no "local" currency as yet which people earn; instead they earn shekels or Jordanian dinars and pay for loans denominated in U.S. dollars. This practice in effect transfers the exchange rate and local inflation risk to borrowers, and protects the value of the lender's funds. The rationale for choice of the U.S. dollar to denominate the housing loans for the Gaza Housing Project and other projects in the near future is set forth in Chapter V.

D. Other Issues

In addition to inflation and currency, other issues, particularly in the legal and political areas, are important to consider.

1. Legal System

At the current time, two different legal systems are in effect, one in Gaza and the other in the West Bank. Both have basically been suspended in time, with the laws in effect in 1967 being applied, with relatively little change in the intervening 27 years. Gaza/Jericho are expected to adopt a legal system soon which may differ from those previously in effect. A number of Israeli Military Orders further complicate the legal situation. Financial institutions are likely to be very conservative in the presence of multiple legal systems, absence of any law or regulation in some areas and uncertainty as to the future. A few legal areas seem to be of most importance for housing finance at this time.

Foreclosure

Typically in most developed housing finance systems, having a mortgage on a property and foreclosing on the mortgage in the event of non-payment is the main method lenders use to secure their housing loans. While foreclosure appears to be legally possible, in the West Bank/Gaza lenders and courts have been unwilling to pursue it, and borrowers have been hesitant to mortgage property

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and risk loss. The practice of using guarantors to secure loans is widely used in Gaza and Israel. The guarantors agree to repay past due loan installments, before lenders seek foreclosure, and as a result, become co-obligors on the loan.

This practice has recently been circumscribed in Israel where a new law requires that action first be taken to foreclose before seeking payment from the guarantors. Also, it is now necessary for guarantors to have equal obligation, i.e. a lender cannot seek repayment from one guarantor, but must approach each. Also, the maximum amount of a guarantee has been capped at \$250,000.

The normal practice in most countries is demand for payment to be made on guarantors only after direct legal action to obtain repayment from the borrower has failed to completely discharge the debt. In other words, foreclosure on the property is the first source of collateral security and the guarantors are a second, additional collateral security. If foreclosure actions are lengthy and frequently unsuccessful, lenders become reluctant to make loans where the primary collateral is property.

The current uncertainty as to the legal system and how it will be applied in practice means that lenders will probably not view a mortgage as sufficient collateral realizing the problems with potential foreclosure. Other means, such as guarantors acting in effect as co-obligors will be needed to secure housing loans, at least initially. When developing/adopting a uniform legal system, careful consideration will need to be given to mortgage foreclosure, guarantors and other forms of collateral/security.

Interest

Jordanian law incorporates a provision from Ottoman Law which prohibits the maximum amount of interest charged during the life of the loan from exceeding the principal amount of the loan. For example, a loan at 9% cannot exceed approximately 17.5 years, while an 8% loan cannot exceed about 20 years, and an 11% loan must be for a term of less than 15 years, assuming equal monthly installments. Also, some people have an objection to paying interest based on their religious beliefs. In Gaza, several credit programs use the term "service fees" rather than interest to address this issue. Most programs have observed little objection by borrowers to the concept of paying interest. It is believed to be appropriate to adopt standard loan practices initially, similar to the practices in all the neighboring countries. However, Islamic banking practices may be usefully developed in the future to address this issue.

2. Interest Rates

At the present time, no generally agreed upon prime or base reference rate is used by financial institutions to price loan and deposit services. There is no inter-bank market, or locally issued and traded short-term securities. As previously noted, until very recently, only one commercial bank operated in Gaza and one in the West Bank. The opening of branches of Jordanian, Egyptian and new West Bank/Gaza banks can be expected to change this situation, as banks compete for deposit and lending opportunities. The policies of the parent banks may also affect pricing of deposit and loan products. Importantly, the fact that three currencies are used routinely and that no currency specific

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to West Bank/Gaza exists, further complicates pricing of financial products. In addition, the cost of funds to commercial banks is somewhat difficult to determine given Central Bank of Jordan and Bank of Israel (BOI) capital requirements (deposits and guarantees for Jordanian bank branches) and BOI reserve requirements which apply to the Bank of Palestine. Given this situation, using deposit interest rates in the country of the currency in question as a reference rate seems appropriate, at least in the short term until the local market develops.

The following chart provides information on relative interest rates for deposits (three months) and loans (prime/base rate) as reported by the IMF or the region's central banks.

COMPARATIVE DEPOSIT AND LENDING RATES FOR JORDAN, ISRAEL AND UNITED STATES, 1990-1993				
	1990	1991	1992	1993
Deposit Rate				
Jordan *	8.00%	6.25%	6.00%	5.75%
Israel	14.40%	13.90%	11.30%	10.40%
United States	8.12%	5.84%	3.68%	3.12%
LIBOR - 3 mos.	8.31%	5.99%	3.86%	3.29%
Lending Rate				
Jordan	10.00%	10.00%	9.75%	9.00%
Israel	21.40%	26.40%	19.90%	16.40%
U.S.	10.01%	8.46%	6.25%	6.00%
Spread (Lending- Deposit Rate)				
Jordan	2.00%	3.75%	3.75%	3.25%
Israel	7.00%	12.50%	8.60%	6.00%
United States	1.89%	2.62%	2.57%	2.88%

*Average of minimum and maximum rates for 1990-93.

The spread between deposit and lending rates represents what commercial banks view as acceptable to compensate them for credit risk (risk of loss due to borrower default), interest rate risk (risk of loss due to mismatch of source and use of funds where cost of funds increases relative to earnings on loans), spread risk (risk of loss from change in funding cost relative to lending reference rate), liquidity risk (cost of reserves required by the central bank), administrative cost, and profit (compensation to providers of capital for opportunity cost of capital, and uncertainty associated with risk of loss and cost estimates).

Comparing the deposit and lending rates with the inflation rates shown in the previous table, it is clear that Israeli interest rates are significantly higher due to such factors as higher inflation, uncertainty as to future inflation and interest rates, and higher labor costs than rates in Jordan. The U.S. inflation and interest rates are the lowest. This relative stability is one factor leading to a lower spread between

deposit and lending rates in the U.S. than either Jordan or Israel. Other factors include the larger, more diversified financial markets in the U.S. resulting in more competition offering financial products, and higher productivity in administration.

3. Administrative Cost

The cost of raising funds, and originating and servicing loans varies among countries based on such factors as labor costs, government regulation, automation and productivity.

Examples of administrative costs associated with mortgage loans by depository institutions (i.e. commercial banks, housing banks, savings and loan associations, building societies, etc.) in several countries are shown below as a percentage of the loan asset.

AVERAGE ADMINISTRATIVE COSTS FOR MORTGAGE LENDING BY COMMERCIAL BANKS AND OTHER DEPOSIT TAKING ORGANIZATIONS ³	
Country	Average Cost (% of Assets)
Denmark	1.89%
France	2.50%
Germany	2.10%
United Kingdom	1.16%
United States	2.21%
Jordan ⁴	2.40%

The Bank of Palestine is "managing" several of the credit programs supported by NGOs and international donors. The functions performed by the Bank of Palestine for these programs is primarily to disburse and receive payments and keep records of loan status. The main fee collected by the Bank of Palestine is a 1% origination fee upon making the loan. In addition, it holds accounts for the initial deposits for the program and loan repayment flows, paying its normal interest rates to the program. The Bank also apparently makes some fees or spread on the conversion of ECU or U.S. dollars to Israeli shekels or Jordanian dinars and reconversion back to U.S. dollars/Israeli shekels. The Bank of Palestine does not lend any of its own funds or take any credit risks on these loans. It does not perform any credit analysis and generally does not undertake collection efforts; however, if collection efforts are necessary, additional fees are charged. It has a simple computer-based loan tracking system.

As a Managing Bank for USAID's Gaza Housing Project, the Bank of Palestine proposes to charge a 1% origination fee and an annual fee, calculated and charged monthly on the remaining outstanding

³Source: Diamond & Lea, "Housing Finance in Developed Countries: An International Comparison of Efficiency," Journal of Housing Research, Vol 3, No.1.

⁴Housing Bank of Jordan

loan balance. The proposed annual fee would be 0.375% in years 1-5, 0.400% in years 6-10, 0.425% in years 11-15 and 0.475% in years 16-20. A modest application fee of \$15 would also be charged. In the case of the USAID program, however, the Bank of Palestine would be expected to take on a significantly more tasks it does for the other programs. Specifically, Bank of Palestine would undertake the following:

- Construction: receive U.S. dollars, remit construction payments in local currency and keep records. The bank's customary fees and rates would apply.
- Housing loan origination: appraise and approve individual loan applicants in accordance with predefined lending rules and procedures, explain in detail loan terms and obligations to borrowers and guarantors, complete loan documentation, collect down payments, disburse loans, and keep complete borrower and loan files.
- Loan Servicing: maintain accounts, record and allocate repayments to accounts, keep detailed records and make monthly reports to PHC, undertake collection activities including initiating collections from guarantors and attaching secured property. Keep detailed records of collection efforts, report to PHC, estimate collection costs and obtain PHC approval prior to incurring such costs.

4. Uncertainty

Any program that is implemented should recognize the particular circumstances in West Bank/Gaza today. These circumstances may affect program operations and lead to a need for changes over time.

Stability of incomes is a particular issue right now which might affect borrower's ability to repay loans. For example, inability of workers from Gaza to go to work in Israel on a regular basis certainly affects the economy of Gaza and may affect specific borrower's income and make prompt loan repayment difficult.

Such factors as a new legal system, changes in and opening/closure of boundaries, elections, and freer movement of people and goods, are only a few of the many possible changes that could affect the housing finance market and specific programs. In uncertain situations, expectations often exceed actions taken, leading to further frustration and instability.

In particular, it is important to be aware that political uncertainty affects how financial institutions operate, what potential borrowers do, and what donor agencies are interested and willing to undertake. In such situations, adopting flexible rather than rigid policies and procedures is appropriate. Also, encouraging programs which have widespread use and have been successfully tested elsewhere may be better than trying to tailor whole programs to fit situations that may soon change and make the programs unworkable.

IV. COMPARISON AND ANALYSIS OF LOAN TERMS AND INSTRUMENTS IN THE REGION

Based on the descriptions presented in Chapter II and Attachment B, the chart below summarizes deposit rates, and housing loans terms and conditions for West Bank/Gaza, Jordan and Israel. The following section notes variations among areas, discusses primary reasons for them and suggests appropriate basis for housing loans for the Gaza Housing Project and the West Bank/Gaza in general.

A. Summary Comparison Chart

Using the information developed in Chapter II, the following chart compares deposit and loan terms in the region.

COMPARISON OF CURRENT REGIONAL FINANCIAL RATES AND TERMS			
	West Bank/Gaza*	Jordan**	Israel
Deposit Rates - 3 mos			
U.S. dollar	2.0%		
Jordanian dinar	3 1/2%-5 1/2%	7.5%-8.5%	n/a
Israeli shekel	8%-11%	n/a	13.5%
Housing Loan Rates			
Commercial/Mortgage Bank	10-11%	10%	19%
Government/Low Income	3.5%, 9%-11%	7%	16%
Term, Real Estate Loans			
Commercial/Mortgage Bank	3 Years	12 Years	10 Years
Government/Low Income	1-5 Years	15 Years	20 Years
Maximum loan as % of project			
Commercial/Mortgage Bank	50%-60%	75%	50%
Government/Low Income	50%-80%	75%	75"
Max. % of Income for Repayment	Depends on Cash Flow	30%	25%-30%
Collateral/Security	Guarantors Notary Deed	Mortgage	Mortgage Registration of rights 2+ Guarantors
Other charges, requirements			
Application Fee		25 JD	Modest
Origination/Management Fee		1%	1%
Appraisal cost			Sh 250-400
Govt. Stamp Tax/Registration		16 per mil	2 per mil
VAT		n/a	17%
Lawyer's fees		n/a	1-2%
Life Insurance		Required	Required
Property Insurance		Required, not enforced	Required

* For West Bank/Gaza, Commercial/Mortgage Bank refers to commercial bank loans, and Government/Low Income refers to credit programs

** For Jordan, Commercial/Mortgage Bank refers to Housing Bank's regular loan, and government/Low Income refers to Housing Bank's low income loan program.

B. Comparative Analysis

1. Deposit Interest Rates

As previously noted, no independent reference rate is used in West Bank/Gaza for any of the 3 currencies.

One measure that might be considered as representing the marginal cost of funds to a lender is the **interbank rate**. However, no interbank rate exists in the West Bank/Gaza and, in Jordan, several of the largest banks are not active in the interbank market. Therefore, until an interbank market is established in the West Bank/Gaza, this is not a feasible reference. A single interbank reference rate will probably not develop until a single currency is agreed as the primary, widely used currency.

Assuming the U.S. dollar is the currency in which housing loans are denominated in the short run, U.S. dollar interest rates would be most applicable. Deposit rates of three months were chosen for comparative purposes, as little market exists for longer deposits in Jordan and the West Bank/Gaza, and this measure is routinely used in international comparisons of deposit rates (e.g. IMF statistics). Several possible U.S. dollar reference rates could be used.

One possibility is the **U.S. three month certificate of deposit rate**. While not directly related to funding for local institutions, it is analogous in term to local deposits, and could have some merit as a reference rate.

Another option with regard to the U.S. dollar is to use the **Eurodollar London Interbank Offer Rate (LIBOR)** for three months. This is the rate that financial institutions are willing to provide U.S. dollars outside the United States for a three month period. Were the commercial banks in the region to obtain funds on international markets, the LIBOR rate would be the typical base representing the marginal cost of funds. The LIBOR rate is generally slightly above the U.S. three month deposit and T-Bill rates. As shown in the Table on Page 19 the LIBOR rate was approximately 0.15%-0.19% (15 - 19 basis points) higher than the three month certificate of deposit rate. Another possibility would be the **U.S. three month Treasury Bill (T-Bill) Rate**, which is well-known. The T-Bill rate, however, relates more to the cost of funds to the U.S. government and U.S. financial institutions than it does to banks in the region.

As would be expected, Israeli shekel rates are the highest and U.S. dollar deposits are the lowest reflecting the relative level of interest rates and inflation in each of the countries.

2. Lending Interest Rates

Likewise the mortgage interest rates are lower in Jordan than in West Bank/Gaza and Israel, once again closely aligned to the relative inflation. There is no clear loan reference rate such as the Base Rate in Jordan, the U.S. Prime Rate or LIBOR on which to base rates. In the West Bank/Gaza, the very limited activity of commercial banks, which is only now beginning to change, has provided little in the way of measures for interest rates. As competition for loans (and deposits) increases, base lending rates are likely to be similar for all commercial banks. Furthermore, after operating for some

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time, banks will be able better to price loan and deposit products having knowledge of cost of funds, costs for administration, expected requirements for loan loss reserves, and feasible profit expectations. At the present time, using a U.S. dollar reference rate for cost of funds, and adding rates for the other factors based on Jordanian banks experience would seem to be a logical approach. The Jordanian banks opening branches in the West Bank/Gaza expect such costs to be higher in the West Bank/Gaza in absolute terms, but think that these costs as a percentage of the loan assets will be similar.

The Bank of Palestine has indicated a willingness to undertake loan administration, without assuming credit risk, for less than 0.5% per annum, plus a 1% origination fee. Such charges seem low given the relative costs of loan administration elsewhere, including Jordan. These costs seem similar to the administrative costs associated with mortgage companies, rather than deposit taking organizations. To the extent that the bank or banks which manage donor funded housing loan programs have use of program deposits, make spreads on foreign exchange conversion and charge any other fees for banking services, the Bank of Palestine may view managing the housing loan program as profitable on an overall relationship basis, even at what appears to be lower than normal rates.

Based on the foregoing, it is recommended that the three month U.S. dollar LIBOR rate be adopted as the base rate, and that additions be made to the rate for administrative cost, reserves for losses and profit. In order to deal with changes in interest rates and inflation, the housing loans interest rates can be adjusted annually. The PHC could exercise the option of changing the rate or leaving it the same.

There is no basis to use lending rates prevailing in Jordan and Israel as the reference rate for housing loans in the West Bank and Gaza. As noted several times, Israeli lending rates are higher reflecting inflation experience and expectations. Israeli deposit and lending rates are directly linked to an inflation index and adjusted on a monthly basis. Such linkages are used typically where there is hyper-inflation. The lending rates for government programs are not market-based, although in recent years these rates have begun to more closely resemble market rates. There is no evidence on which to conclude that such methods should be adopted for the West Bank/Gaza. The Jordanian rates reflect local conditions and would only be appropriate for West Bank/Gaza were the Jordanian Dinar to become the primary currency in use.

This is an interim solution for establishing a base rate. Eventually some locally determined market rate will be established, based on the marginal cost of raising funds locally, loss experience and administrative costs and profit requirements of financial institutions competing in the marketplace.

3. Loan Terms

For purely commercial loans, loan tenor and percentage of the value of the property financed by the loan tend to be lower than for special programs for low income or other priority groups in both Jordan and Israel. The Housing Bank of Jordan lends for 12 years on 75% of the value, while low income loans are for 15 years at 75% of value. Commercial banks generally make real estate loans for five years or less and rarely for more than 50% of the value of the property. In Israel, mortgage companies lend for 10 years at 50% of value on a market basis and for 20 years on 75% for government programs. Availability and stability of funding sources at known costs, risk of loss and affordability of loan repayment by borrowers are the primary consideration in setting loan maturities.

Absent long term sources of funds at fixed rates, lenders prefer short term loans. Lowering the loan to value ratio decreases the perceived risk in that the value of the underlying asset when sold will not cover the loan amount. Increasing the loan term makes repayments lower and increases affordability, and is the primary reason for having long term loan terms for housing loans. At present, no commercial banks operating in West Bank/Gaza have interest in making long term loans and will be unlikely to do so unless there is a stable source of long term funding or a way to sell the loans (secondary market). Specialized housing loan institutions, i.e. a housing bank or mortgage companies, will be needed eventually.

4. Collateral/Security

As previously discussed, the primary real estate loan collateral in Jordan is a mortgage on the property, while in the West Bank/Gaza guarantors acting like co-obligors on the loan provide security to lenders. In Israel, guarantors are also used extensively, although a new law requires that recourse first be taken to foreclosure on the underlying property. Until the legal situation is clarified, continuing to use the guarantor mechanism seems appropriate for the West Bank/Gaza.

C. Analysis of the Opportunity Cost of Capital

The rationale for dollar denominated housing loans and the choice of reference rate has been addressed previously in the report. In addition, it should be noted that while the current source of funds is a "grant", consideration must be given to what such funding would have cost had it been raised locally or internationally, as will be the case for future funding. In other words, what would have been the cost to the PHC or Palestinian Authority and how much should they earn so that the funds would not lose value. For example, at 12/31/93 the three month LIBOR rate was 3.29%. Assuming that 1% is a reasonable loss estimate, based on a delinquency rate ranging from 0.5%-1.0% in the region, and 2% as a typical administrative cost for deposit-taking financial institutions, a minimum rate of 6.29% would have been appropriate at 12/31/93. Adding 1% representing the profit expectations of the marketplace, suggests that a true market rate would have been 7.29%. Because PHC is not operating in a dollar economy, the change in relative exchange rates provides compensation for inflation. Hence, there is justification for not making an adjustment for U.S. inflation. Maintaining the option of adjusting the interest rate annually can compensate for any significant changes in U.S. rates.

As of August 15, 1994, the following rates would apply, reflecting the increases in U.S. rates since year end 1993.

3 month LIBOR	4.93%
Reserve for Loss	1.00%
Administration	2.00%
Profit	1.00%
Total	8.93% or approximately 9%

This compares with 9-11% rates which are meant to be market-based. These rates are now being charged by business credit programs with terms generally of 2-3 years in the West Bank/Gaza.

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V. RECOMMENDATIONS FOR GAZA HOUSING PROJECT

A. Assumptions

The following assumptions were made with regard to incomes, sources of funding and costs associated with lending and the Gaza Housing Project in analyzing and developing recommendations:

1. Incomes

The maximum eligible income is \$700/month. Distribution of incomes of beneficiaries range from \$700- \$400 per month. This range is based on preliminary analysis of applications received by PHC and represents approximately 65% of the applicants. Applicants with incomes below \$400 per month were considered to be able to afford only such a modest loan as to make home purchase unfeasible without massive subsidy. Even at 1% per annum for 20 years with 30% of income devoted to loan repayment, a household earning \$400 per month could only afford a \$26,000 house.

Repayments to income ratio is assumed to be 30% consistent with regional practices (range 25%-33%).

Other eligibility requirements are that beneficiaries not be older than 65 at maturity of the loans, under the assumption that after that time they will not have regular income for loan repayment.

Funding Sources

Applicants pay 25% down payment and 75% of the value of the housing unit is financed through a loan or grant. The shortfall between the loan amount which is affordable and the loan amount which represents 75% of the fully-costed price of the housing unit, is considered a capital grant to the beneficiary.

Housing Unit Costs

The full cost of the Al Karama Towers project was calculated with PHC input. In addition, a 10% margin is added to compensate for the cost to replace the land at the current price, i.e. to bring the sales price to a market price, and for profit. In order to approximate a market price that would not distort the market were private developers to sell similar units, it is essential to consider some factor for profit to compensate for developer risk-taking. This 10% is very modest and likely to be lower than developers would be willing to accept for taking the risks associated with housing development.

The full cost estimate is shown on the following chart.

COST OF AL KARAMA TOWERS PROJECT

Cost Components	Total Cost	Cost/m ²	A Unit Cost	B Unit Cost
1. Land Purchase	987,216	42.7	5,291	4,694
2. Construction	6,915,000	298.9	37,062	32,877
3. Design	65,000	2.8	348	309
4. Building Permit	165,690	7.2	888	788
5. Sub-Total A	\$8,132,906	\$351.5	\$43,589	\$38,668
PHC Administration				
6. Full-time Engineers (2)	30,000	1.3	161	143
7. Allocated Indirect Costs	120,000	5.2	643	571
8. Total Administrative Costs	150,000	6.5	804	713
9. Sub-Total B	\$8,282,906	\$358.0	\$44,393	\$39,381
10. Profit /Land Appreciation @ 10%	828,291	35.8	4,439	3,938
11. Grand Total	\$9,111,197	\$393.8	\$48,832	\$43,319

Assumptions

"A" model = 144 units @ 124 m², "B" model = 48 units @ 110 m², Total 23,136 m² for 192 Units

B. Recommendations on Interest Rate/Index and Loan Terms

- Currency Rate.** U.S. dollar denominated Loan, disbursed and payable in Jordanian dinars or Israeli shekels. The rationale for choice of currency is summarized in the following chart which lists the pros and cons of using each of the three currencies.

	U.S. Dollar	Jordanian Dinar	Israeli Shekel
Pros	<ul style="list-style-type: none"> ● Maintains value by protecting lender from inflation ● Used widely in other loan programs in Gaza/West Bank ● Rents and other fees commonly use \$ for pricing ● U.S. interest rate is lower than JD/Sh ● Easy conversion to any new Palestinian currency ● PHC favors U.S. dollar denominated loan 	<ul style="list-style-type: none"> ● Widely used in West Bank for lending ● Jordanian banks are active ● Is acceptable local currency ● Lower interest rate than Shekel ● More stable currency than Shekel ● Inflation in Jordan quite moderate in region. 	<ul style="list-style-type: none"> ● Many beneficiaries in Gaza and some in West Bank earn Shekel income.
Cons	<ul style="list-style-type: none"> ● Exchange risk with borrower may result in inability to pay ● Repayment amount uncertain ● Increases in income tend to lag inflation/ exchange rate changes 	<ul style="list-style-type: none"> ● Many West Bank/ Gaza residents earn shekels, not JD ● Higher interest rate than U.S. dollar 	<ul style="list-style-type: none"> ● Borrowers prefer not to risk dealing with Israeli legal system and any possibility of land loss. ● Politically least desirable ● Few banking relationships with Israeli banks

2. Interest Rate

Reference Interest Rate

The housing loan carries a **Commercial Rate of Interest** which reflects the cost of funds, administration costs, provisions for bad debts, and profit.

The **Opportunity Cost of Capital** is defined as the Cost of Funds at the margin, i.e. the cost of raising additional funds. Marginal cost of funds for the U.S. dollar is defined as the **three month LIBOR rate**. The following is the current estimated Commercial Rate of Interest based on rates and practices in local, regional and international credit markets.

3 month LIBOR	4.93%
Reserve for Loss	1.00%
Administration	2.00%
Profit	1.00%
Total	8.93% or approximately 9%

Interest is charged on daily balance for past due installments.

Floating/Fixed Interest Rate

Interest Rate is **Floating (Adjustable)**. The interest may change annually at the option of the PHC in coordination with the Managing Bank(s) based on changes in Opportunity Cost of Capital.

This flexibility allows the PHC to protect the value of the loan portfolio by making changes to reflect current rates. Very large upward shifts in rates may lessen affordability. However, changes may also occur to incomes and exchange rate which could compensate for the rate change or exacerbate it. Such factors can be taken into account in deciding whether or not to change the rate, and by how much.

Rate Incentives

Incentives can be provided for borrowers to contract for shorter loan maturities or prepay loans. Shorter maturities would reduce subsidy, limit false reporting of incomes, and facilitate replenishment of revolving fund. The interest rate could be reduced modestly as follows: 1/2% for loans of less than 7 years, 1/4% for loans of 7-12 years, and full rate for loans of 13-20 years.

Interest Ceiling

The interest rate and term are **capped** so that accumulated interest over the life of the loan does not exceed principal in accordance with Ottoman Law now in force in the West Bank.

3. Other Loan Terms

Loan Maturity

The maturity of the loan is a maximum of 20 years, but may be less depending on what the borrower prefers and can afford and the impact of the interest ceiling.

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No grace period is allowed other than the first month.

Loan to Value Ratio & Down Payment

Down payment is 20%-25% of the unit selling price (to minimize the subsidy level as practically as possible), for loan to value ratio of 75%-80%.

Establishing a **contract savings program** to help beneficiaries to build up the down payment needed during the construction period of the project should be considered. Such a program would be administered by the Managing Bank(s).

Commission (Points)

No commission is recommended based on the fact that the Managing Bank(s) will be compensated at a rate of 2% or more per annum on the outstanding loan balance. It is recognized that a "commission" of at least 1% is normal practice. However, up-front costs additional to the downpayment should be minimized given the modest incomes of beneficiaries. If Managing Bank(s) insist on some initial commission, it is recommended that borrowers be given the option of including the commission in the loan amount

Guarantors

No less than **two guarantors** are required, at least one of which must have steady income and the salary directly deposited at the Managing Bank so that attaching the salary of the guarantor is possible in the event of the borrower's non-payment. Each case should be evaluated to determine the financial standing and reputation of the proposed guarantors and whether or not additional salaried guarantors are needed.

That demand on the guarantor for payment of past due installment(s) can be made before foreclosure proceedings are completed must be stated clearly in the loan contract. This approach is necessary as long as lenders are not certain that foreclosure is clearly established in the legal system and implemented promptly in the courts.

Collateral

Title remains in name of PHC until final repayment is received.

A Notary Deed is drawn. The loan contract is notarized and recorded with the court. Legal counsel in Gaza should be consulted as to how the loan should be recorded.

Insurance

Life insurance is preferred (current cost is 16 per mil on the West Bank). The beneficiary is required to obtain **property insurance** as it benefits both the lender and the beneficiary (but lack of property insurance will not constitute default and the Managing Bank will not insist on it due to high cost of 1.2%-1.5% per year in the region).

Delinquency

Non-payment for 3 months equals default and can trigger calls on the guarantee. In the event of foreclosure, the defaulted borrowers will have no rights to the subsidy already provisioned for in the loan contract. This is necessary in order to prevent the delinquent beneficiary upon

foreclosure from obtaining a windfall represented by the initial subsidy.

4. Contract Wording

PHC should seek legal advice and carefully study loan contract wording in coordination with a housing finance expert. The contract wording should include the following points specifically:

Interest Rate is floating and can be adjusted annually.

Subsidy is not a given right. In case of default and eviction, all previously collected installments from the beneficiary are considered rent and wording shall not contradict applicable rent laws of Jordan/Egypt/West Bank and Gaza.

Managing Bank has right to demand payment from guarantors prior to instituting foreclosure proceedings.

C. Recommendations on Managing Bank(s)

At least **two Managing Bank(s)** should be selected to administer the loan program. This approach has the following advantages: provides for competition, increases convenience to borrowers, enhances residential lending abilities of banks and provides PHC with a reference on which to base its choice of Managing Bank(s) in the future. PHC retains the right to cancel the contract with a Managing Bank based on unsatisfactory performance. This approach also supports financial institution-building in the West Bank/Gaza.

Managing Bank(s) are responsible for evaluating creditworthiness of PHC selected beneficiaries and guarantor, training beneficiaries on loan responsibilities and mechanics, preparing and closing loans, servicing loans (including initiating, updating and maintaining loan accounts, loan files, and following upon collection of repayment installments on a timely basis) and reporting periodically on loan status to PHC, USAID, and borrowers. With concurrence of PHC, the Managing Bank(s) institute legal proceedings, including seizing and reselling the property. Attachment D describes the responsibilities of Managing Bank(s) in greater detail. In future PHC projects, the Managing Bank(s) will also be responsible for marketing the loan program to potential beneficiaries.

These tasks are the same ones that the Managing Bank(s) would undertake if they were making and servicing a loan for their own credit risk, using their own funds. It is important to note that significantly more tasks are involved here than are currently being performed by the Bank of Palestine in Gaza for the various credit programs with which it is involved.

Fees

Managing Bank(s) receive fees for managing the loan program, as negotiated with PHC. It is estimated that fees will be about 2%. Current administrative costs for banks are range from 2.0%-2.5%. As noted, the Bank of Palestine has indicated a willingness to perform these

functions at a much lower rate. Before accepting any rate much below 2%, it will be important to clarify in very specific terms the tasks to be performed and what other compensation could accrue to the Managing Bank(s) (e.g. profit on dollar/shekel/dollar conversion, interest paid on PHC accounts, etc.).

Costs for foreclosure and sale of assets shall be shared between the PHC and the Managing Bank(s), as negotiated with the Managing Bank(s). The Managing Bank(s) would not incur such costs for the account of PHC without prior agreement with PHC.

D. Recommendations on Capital Grants (Subsidies)

1. Effects of Interest Rate and Term Recommendations

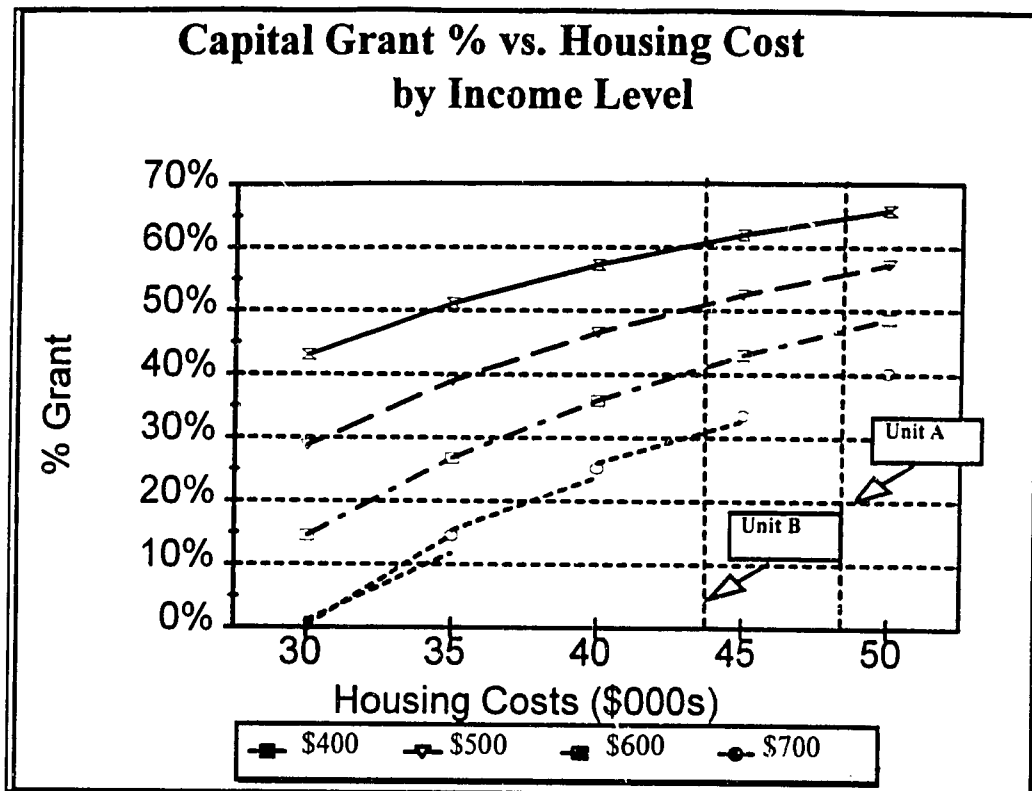
When the recommendations relating to interest rates and terms are applied to the Gaza Housing Project and the incomes of the potential beneficiaries that have made application to the PHC are taken into consideration, it is clear that the Al Karama Towers units when priced for full cost recovery will not be affordable to most applicants.

The subsidy amount totals almost US\$3,600,000 when loans cover 75% of the value at a 9% interest rate for 18 years, compared to a total cost of about \$9,100,000 and total loan amount of about \$6,800,000. Assuming that the distribution of borrowers with incomes of \$440 to \$700 is the same as the preliminary analysis of the PHC applicants, the subsidy reaches 39% of the total project and 52% of the loan amount. To illustrate the effect on the subsidy of changing terms and conditions, lowering the interest rate to 7% only reduces the subsidy to 34% of the total project and 45% of the loan amount. If the down payment were lowered to 20% to assist lower income households who might not have the required savings, the shortfall would be exacerbated even more because the term would have to be lowered to 15 years. This decrease in term would then result in a subsidy increase to 63% of the loan amount.

This is the apparent subsidy. However, if an adjustment is made reflecting the net present value of the interest income earned by the PHC on the USAID grant funds (i.e. 9% less 2% of administration and 1% for loan loss or 6%), the actual loss of capital is less. This calculation lowers the total subsidy to about 32% of the total project and 42% of the loan amount.

The graph below shows the percentage of capital grants required for income levels from \$400 to \$700 on housing units of different values, including Al Karama Towers Units A and B. This high level of subsidy suggests that future projects must lower costs through changes in standards, design changes, minimum interior finishing, lower priced land, cross-subsidies, etc.

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The temptation to lower interest rates to reduce the subsidy is best avoided for the result is the same in terms of the opportunity cost of capital. And even more importantly, such rate reductions would have the potential for distortion in market interest rates. Such actions may have long term consequences far more costly than the clear subsidy element in the Gaza project.

Attachment C provides detailed information which illustrates the loan requirements for recovering the full price loan amount for the two types of units in Al Karama Towers, indicates what is affordable and quantifies the shortfall under the recommended loan terms and conditions, and several other scenarios. The methodology used is described.

2. Capital Grant (Subsidy) Procedures

The **Capital Grant** (subsidy) is defined as the difference between the amount of the loan based on full cost recovery at the commercial interest rate and terms and the amount of the loan the beneficiary can afford. The capital grant is in fact equivalent to a buy-down of the loan amount. PHC determines the maximum amount of capital grant subsidy for each accepted beneficiary. This approach is taken instead of an interest rate subsidy, as the amount of the subsidy can be clearly established from the beginning and the responsibility for determining who receives the subsidy and the amount is also known.

Other approaches, such as reductions in loan principal based on a record of prompt payment and graduated payment loans, were considered but are not recommended due to the complexity involved for both beneficiary and lender. The capital grant approach is direct, immediate and transparent.

The following procedure for tracking subsidies is proposed.

- The PHC informs the Managing Bank(s) of the maximum loan to which the beneficiary is entitled.
- The Managing Bank(s) confirm the creditworthiness of the beneficiary and the guarantors for the PHC approved maximum amount and informs PHC if the beneficiary can afford a larger loan (with less subsidy) or a reduced loan. The subsidy amount is adjusted accordingly.
- The loan contract indicates the full cost recovery amount, the subsidy and the reduced loan amount which the Beneficiary must pay.
- The Managing Bank(s) track in their MIS systems the subsidies granted and report periodically to PHC.
- In the event of foreclosure, the amount of the subsidy will be recovered from the foreclosure sale price if possible and the foreclosed beneficiary will have no rights to the proceeds from the foreclosed property.

E. Recommendations on Technical Assistance/Training

Technical Assistance/Training is required as follows:

Technical Assistance. Technical Assistance to Managing Bank(s) is needed for

- developing rights and responsibilities under the program to ensure that loans are handled in the same manner as the loans for the Managing Bank(s)' own risk;
- developing proper documentation for long-term housing loans;
- developing and implementing policies and procedures for origination, closing and servicing housing loans;
- developing and implementing marketing and customer service activities;
- designing and implementing accounting and MIS systems as necessary; and
- establishing policies and procedures for pursuing loan delinquencies and training in collection and recovery techniques.

Training/Study Tours

Managing Bank(s) should receive training with housing finance institutions, such as the Housing Bank of Jordan, in order to gain practical knowledge of housing finance operations.

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PHC staff should participate in Training/Study Tours on housing finance policy and practices at institutions such as the Housing and Urban Development Corporation in Jordan.

F. Recommendations on Islamic Banking

In the future, the PHC should consider offering two programs - one Islamic and one common interest bearing mortgage-type loan. The Islamic program would have characteristics that would result in equal benefits to the lender and returns on capital as the other program. For the time being, it should be enough to refer to interest as "**service fees**" which is a normal, acceptable practice in Gaza.

G. Recommendations on Future Housing Finance System

In order to assure future development of an efficient, sound housing finance system, with efficient institutions, the following should be undertaken:

- Conduct a Housing Finance System Needs Study including consideration of institutional requirements.
- Consider creation of a Housing Bank with majority private ownership, conduct feasibility study, and provide subsequent technical assistance for implementation in areas including development of articles of association, policies and procedures related to programs for deposit-taking and lending and overall operations of a housing bank. The Housing Bank might best be authorized from the beginning also to undertake normal commercial banking and Islamic banking activities.
- Explore other options to mobilize funds for housing finance including contract saving programs, guarantee mechanisms and secondary market operations.

It is noted that in establishing a housing bank, the following factors would be useful to consider.

Palestine Housing Bank

For the future, it is imperative to establish a specialized housing credit institution (a housing bank) in order to stabilize the housing finance system in West Bank and Gaza as commercial banks normally cannot be active players in the housing finance market, even if they assume the mere role of financial administrators to the housing programs. However, while it is advisable to have the public sector share the responsibility of establishing the proposed Bank with the private sector, it is essential to have the private sector undertake the leading responsibility in establishing the bank in order to run the bank on a commercial basis. Thus, the Bank would be protected from being controlled and operated on a political basis. Therefore, the private sector contribution in the capital of the proposed bank might not be any less than (51%) or preferably (60% - 65%). The proposed Housing Bank is expected to be able to grow and expand on its own, without being heavily dependant on public funds. Therefore it should be authorized to mobilize national savings and to reach international capital markets and sources of long term capital funds. In its endeavor to mobilize national savings, the bank ought to be authorized to take deposits, including current or checking accounts. This authorization of deposit taking might create a

mismatch of maturities question; however, there are on the technical side of this issue a variety of policies and measures that can efficiently deal with this problem.

Once the proposed Bank is established and strengthened, it would be advisable to entrust it with all the existing and future finance and lending business of all public housing projects. Careful study needs to be carried out in the process of the bank establishment to see that its mandate and terms of reference (goals and objectives, policies, procedures, lending programs, deposit taking programs) are all tailored to meet the specific housing finance needs to the West Bank and Gaza. This concept cannot be over emphasized, as housing banks in one place cannot be replicas of other banks which operate in different environments.

Technical assistance in the formation phase of the Palestine Housing Bank, and the formation of policies, procedures, documentation and organizational structuring is needed. Also, training assistance at different staff levels in the first two years of operations is required to secure efficient and successful operations from the beginning.

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LIST OF PERSONS CONTACTED

COMMERCIAL/MORTGAGE BANKS

Bank of Palestine Ltd.

Ali Hassan Zammar, General Secretary
Unsan Kamal Shaushaa, Foreign Relations

Cairo-Amman Bank, Nablus

Mr. Aziz Shaker, Area Manager

Arab Bank plc

Mufleh Akel, Senior Manager, Merchant Banking Dept.
Dr. Faisal Murrar, Senior Manager, Research and Financial Policy Dept

Arab Land Bank

Samir Mahdi, General Manager

Bank of Jordan

Mohammed J. Qassim, Senior Assistant General Manager

Cairo Amman Bank

George Dallal, Senior Assistant General Manager

The Housing Bank

Ghassan Shahatit, Assistant, Deputy General Manager
Ibrahim M. Daher, Manager of Housing Loans Dept/General Management
Nabih H. Jweinat, Head Individual Loans Unit, Housing Loans Department

Jordan-Gulf Bank

Muhammad M. Jamjoum, General Manager

Carmel Bank, Mortgage and Investment Ltd.

Ron Goldner, Marketing

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Palestinian Housing Council - Jerusalem

Abdallag Said Abdallah, Treasurer
Ali I. Ariqat, Financial Manager
Lourance Khair, Chairman, Public Relations Committee
Taher A. Khalaf, Urban and Regional Planning Coordinator
Studies and Research Unit

Palestinian Housing Council - Gaza

Omar Al Othmani, Engineer - Acting Branch Director

American Near East Refugee AID

Lance Matteson, Middle East Representative
Adnan M. Obeidat, Co-Operative Consultant

**United Nations Relief and Works Agency (UNRWA)
for Palestine Refugees in the Near East**

Alex Pollock, Field Development and Planning Officer

Central Bank of Jordan

Dr. Michel Marto, Deputy Governor

Housing and Urban Development Corporation (HUDC), Jordan

Eng. Yousef Hiasat, General Director
Arch. Jiries Habash, Senior Director, Policies and Training Unit

United States Embassy/Tel Aviv

Judith G. Garber, First Secretary, Economic Affairs

USAID Affairs Office for Gaza

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Salah Abdel Shafi
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James Walker, Economist
Gregg R. Baker, Economist

International Bank for Reconstruction and Development (World Bank)

3

Lawerence M. Hannah, Urban Development Division

OTHER

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Ibrahim H. Abdelhadi. Managing Director

Asusi Housing Co. Ltd.

Tahany Said, Accounting

Center for Engineering and Planning

Dr. Rami S. Abdulhadi, Director

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**HOUSING FINANCE IN THE REGION:
REVIEW OF RELEVANT FINANCIAL PRACTICES, RATES AND TERMS
IN JORDAN AND ISRAEL**

The following pages detail the housing loan programs of Jordan and Israel

A. Jordan

The Housing Bank in Jordan is the primary lender for housing, offering extensive long term loans at commercial rates and operating special programs for low income households. It should be noted that the public sector only has a small shareholding in the Housing Bank, which is operated on a purely private sector basis. The Housing Bank operates 114 branches.

Other banks provide some financing for real estate, primarily for 50% or less of construction cost to affluent individuals and developers of high cost housing units, on terms up to 5 years at commercial rates.

The Housing and Urban Development Corporation (HUDC) supplies low cost housing finance using a market oriented approach, including full cost recovery and offers some finance services.

1. The Housing Bank

The Housing Bank offers three types of housing loans: regular housing loans, low income housing loans and loans for construction of investment properties by developers and individuals. For financing houses for individual households, two programs are offered, one for low income and the other for everyone else.

Regular Loan Program. For households that are not low income, the regular loan program is available. Under this program the maximum housing loan offered is 30,000 JDs for one unit at an interest rate of 10% plus 1% commission for 12 years with a 1 year grace period. The loan to value ratio is 75% and maximum percentage of fixed income for monthly repayment is 30%.

Home improvement loans are offered on the same terms as housing loans, except there is no maximum size ceiling. They also lend for land purchase.

Low Income Loan Program. For the low income housing loan program, the maximum loan amount is 10,000 JDs to a household with a maximum income of 375 JD per month, for a single housing unit that not exceeding 200 m² (plus 50 m² for basement). The borrower must be buying a home for the first time. The loan term is 15 years, with 1 - 1 1/2 years' grace period. By law, loans are allowed to extend to 20 years, but the Ottoman legal provision remaining in Jordanian law stipulates that interest over the life of the loan should not exceed principal. As a result, at

current rates loans over 15 years would be prohibited.

The interest rate for low income housing loans is fixed at 7%. The Housing Bank retains the right in the loan agreement to float the interest rate, but in practice it is not done. The 7% represents some subsidy, but it is made up through cross subsidy, and at 7% is probably not lower than the average cost of funds (estimated to be about 5.5%). The maximum loan to value is 75% and the maximum percentage of household income for loan repayment is 30%. Housing Bank life insurance is provided as part of the loan. They require borrowers to obtain property insurance, but they rarely check to enforce this requirement.

Over 120 million JD has been lent to low income households over the life of this program. The amount outstanding is now only 35 JD million. The average loan size is 6,000 JD. Almost 95% of these loans finance housing developed by the Government's Urban Development Department (now merged into the Housing and Urban Development Corporation - HUDC). UDD projects have not reached lower than the 20th income percentile, even with HUDC cross subsidy.

Investment Loans. For financing investment in housing, the interest rate is 11% plus 1% commission for 1-3 years, 11.25% plus 1% for 3-5 years, and 11.5% plus 1% for 5-7 years. It is unusual for the term on investment loans to exceed 5 years. The maximum grace period is 2 years. The Housing Bank typically lend to 50% of value of project, excluding land, but exceptionally they will lend up to a maximum of 70%.

Fees. Except for the 1% commission on the investment loans, there are no fees, other than a modest 25 JD application fee. Sometimes guarantors will be sought to support a loan; however, they usually sign the loan and in effect become co-obligors.

Delinquencies. There have been virtually no delinquencies. Delinquencies are currently less than 1% and are 0.36% for low income (based on definition of 6 months in arrears on interest which is considered non-performing). They have had less than 100 foreclosure actions since beginning operations. Even with foreclosure, most borrowers repay in the one year period the bank must wait before it can legally sell a foreclosed property.

Funding. The Housing Bank is funded by deposits from individuals, institutions and government. They have over 575,000 savings accounts or with more than 80% of households. The savings account base however is very stable. Maximum deposits are for 1 year tenor, but most are for one month. The Housing Bank competes for government and other institution deposits on the same basis as other banks, and participates in the interbank market. The Housing Bank is very liquid, and not particularly concerned with A/L matching in that they receive inflows from repayments equal to about 90% of new loans made, plus there is constant growth in the savings deposits. In recent years, the Housing Bank has also expanded activities to include the full range of commercial banking services.

The cost of funds at the margin is about 7.5%, and administrative cost is about 2.4%. The

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average cost of funds is estimated at somewhat above 5%.

The chart below describes the financial rates and terms prevailing in Jordan for the Housing Bank. Similar information is provided on commercial banks.

JORDAN FINANCIAL RATES AND TERMS		
Housing Bank		
Marginal Cost of Funds		7.5%
Cost of Administration		2.4%
Housing Loan Rates	Regular Housing Loans Low Income Developer/Investment Loans	10% + 1% commission 7 % up to 3 yrs = 11% + 1% 3 to 5 yrs = 11.25% + 1% 5 to 7 yrs = 11.5% + 1%
Maximum Loan Amount	Regular Housing Loans Low Income Developer/Investment Loans	30,000 JD 10,000 JD Not more than 50% of project
Term	Regular Housing Loans Low Income Developer/Investment Loans	12 yr. with 1 yr. grace period 15 yr. with 1 1/2 yr. grace 1-5 years (exceptionally 7 yrs) with max. grace period of 2 yrs.
Maximum loan as % of project	Regular Housing Loans Low Income Developer/Investment Loans	75% 75% 50% (exceptionally 75%)
Maximum % of Income for Repayment	Regular Housing Loans Low Income Developer/Investment Loans	30% 30% N/A
Collateral/Security		Mortgage on property, occasionally personal guarantees, cash collateral
Other charges, requirements	Application Fee Land/Property Registration Life Insurance Property Insurance	25 JD 16 per mil Required Required, not enforced
Commercial Banks		

JORDAN FINANCIAL RATES AND TERMS		
Marginal Cost of Funds Average Cost of Funds	3 mos. deposit Blended from all sources	7.8%, 8%-8.5%, 8.5% 5.2%-5.5%. 6%-7%. <5%, 5.75%
Cost of Administration Cost of Reserves, Losses Profit Margin	As % of working assets	2.0%-2.5%. 1%-1.33%, 2.5% 1%, 1% 1%. 1.5%
Commercial Loan Rates	Base Rate Real Estate Developers	11.5% + 1% comm., 10%-13%, + 1% (change yrly), 9% +3 1/2%, 13% +1% comm.(9%+2% for prime) 12%-13%
Term, Real Estate Loans	Owners Developers Residential, Employees (annual payment, 1 year grace on interest & principal)	up to 5 years up to 3 years up to 10 years, 20 years
Maximum loan as % of project	On Real Estate loans	75%, 60%, 40%
Maximum % of Income for Repayment	On Real Estate loans	Depends on cash flow, 33%, 25%, Max. loan 60 times salary,
Collateral/Security		Mortgage on property, occasionally personal guarantees, cash collateral

2. Commercial Banks

Commercial banks indicate that they generally lend for 3-4 years (maximum 5-6 years) to individuals to complete construction of a home by wealthy individuals. They expect the borrower to contribute the land and at least 25% and up to 60% of the construction cost which must be used prior to disbursement under the loan. A first mortgage is taken as security, and in some cases guarantors also are required. Only one bank, other than the Housing Bank, provides real estate loans of up to 10 years, but only for 40% of the market value. The commercial banks are not actively seeking real estate mortgage lending opportunities. Rather, they lend a portion of construction cost to their known clients basically as bridge financing for a period less than 5

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years. Rates and terms typically resemble those that apply to commercial loans.

Commercial banks indicate the marginal cost of funds to be about 8% or more, with some banks (with a large number of deposit and savings customers) reporting the average cost of funds near 5.5%. All but one bank, noted administrative costs were in the 2.0%-2.5% range, with the cost of reserves/bad debts at 1.0% or less. Banks were generally reluctant to disclose profit margins on loans. A range of 1.0-1.5% was agreed as an approximate profit level on lending.

3. Government Programs and Subsidies

The main government benefit the Housing Bank has is tax exemption on 50% of net income from housing loans. The maximum benefit to the Housing Bank of the tax exemption is equivalent to less than 1.5% on the rate for a low income housing loan. There are no other subsidy programs for housing finance.

4. Housing and Urban Development Corporation (HUDC)

HUDC, a statutory corporation wholly owned by government, is responsible for housing policy development. It is also the main provider of low income housing units. Privatization of the latter function is under active consideration.

HUDC has two housing finance related programs. Recognizing that one of the main problems for low income people is lack of collateral, HUDC now grants small loans up to 1,000 JD without collateral under a Ford Foundation supported program. If borrowers pay back as agreed, they can get more loans. The payback rate is almost 100%.

Four years ago HUDC started a savings scheme. Once the cost of a housing unit in a housing project is identified, beneficiaries contract to save, giving a 2% down payment and then saving until about 15% saved. The saving plan is timed to coincide with the end of the construction period. The savings deposits do not earn interest. However if four years pass without delivery of the unit, the Cabinet decree setting up the scheme requires that market interest be paid. To date, HUDC has accumulated more than 1 million JDs in savings, for seven sites for 400-500 people. When the units are ready, the beneficiaries are directed to the Housing Bank to get a loan.

Since 1988, HUDC has not received any government money. It has relatively low cost money from the World Bank (8-9%). The old portfolio of loans supported by Government still has 60 million JD outstanding. While problems were experienced in the past, less than 1% is now delinquent. It has rescheduled and restructured loans when necessary.

HUDC uses cross-subsidy to make smaller units affordable to lower income households. Land is sold at market prices. Its costs are higher than the private sector due to government procurement and bureaucracy.

The HUDC qualifies, select beneficiaries, etc., and the Housing Bank deals with affordability criteria. Beneficiary selection criteria include the following: must be Jordanian, over 18 years old, and not already own land or a house. Priorities are set by giving points related to marital status, family size, and government employment. HUDC makes a preliminary income study to determine expected eligibility for a Housing Bank loan.

HUDC is considering a voucher system to subsidize borrowers by direct means. This is considered necessary so that uniform loan terms will be applied when the private sector supplies low cost housing.

B. Israel

1. Mortgage Banks

In Israel, mortgage banks provide most of the loans for housing, either using their own funds, or managing government loan programs. The vast majority of the mortgage banks are subsidiaries of commercial banks. A few are independent entities. Mortgage banks are allowed to make loans for any purpose where the loan is secured with real estate assets, except that they cannot lend on property that is owned by companies or on commercial property owned by individuals. For example, a mortgage bank can take an apartment as security for an automobile loan on the same terms as a mortgage loan, i.e. a person can have a 20 year automobile loan secured by an apartment rather than the automobile itself. The same method is used for home improvement loans.

With the recent banking liberalization in Israel, it is likely that these specialized financial institutions will disappear, the mortgage companies will be incorporated into the parent commercial banks and the independents become full service commercial banks. As an indication of this trend, mortgage banks are now able to take deposits. Mortgage banks obtain funding from institutions (insurance companies, pension funds, etc.). Institutional deposit rates are related to government bond rates and the consumer price index. Deposits generally range in term from three months to three years. Deposit and loan rates are expressed as a base rate plus "linkage" which is based on the consumer price index. The linkage rate changes each month. Both the principal and the interest are linked, such that the principal amount of the loan may be more after several years of payments than it was initially.

Intense competition has led to reduction in spreads to less than 1%, compared with margins of 2-3% only a couple of years ago. Mortgage banks that have low cost funding from their commercial bank parent company have been less affected than the independent mortgage banks which must rely on institution deposits for funding.

The following chart shows current Israeli financial rates and terms.

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ISRAEL FINANCIAL RATES AND TERMS		
Deposit Rates Savings Rates Cost of Administration Profit Margin	3 mos. 2,6,8 years As % of working assets	13.5% non-linked 3.1%, 3.3%, 4% + linkage 2% estimate Less than 1%
Mortgage Loan Rates	Mortgage Bank Base Rate Government Program Rate	5.15%-5.5% + linkage (total 19.5%) 4%+ linkage (16%)
Term, Real Estate Loans	Mortgage Bank Government Program	10 years 20 years
Maximum loan as % of project	Mortgage Bank Government Program	50% 75%
Max% of Income for Repayment	On Real Estate loans	25%-30%
Collateral/Security	If title registered If title not registered Guarantors	Mortgage Registration of rights & sometimes bank guarantee in addition 2-3 (up to 5-6)
Other charges, requirements	Application Fee Management Fee Appraisal cost Government Stamp Tax VAT Lawyer's fees Life Insurance Property Insurance	Modest 1% Sh 250-400 2 per mil 17% 1-2% Required Required

Fees. The typical home purchaser incurs substantial fees related to the purchase and mortgage. In addition to the mortgage bank's 1% fee, there is the cost of appraisal (Sh 250-400), 4 per mil government stamp tax, 17% VAT, and 1-2% for lawyers fees, in addition to life and property insurance. The application, appraisal, management fee and any other fees collected by the bank typically would total Sh 2,000 per loan. The government taxes are in addition, as are the lawyers fees.

Property Registration. Because the state owns almost all the land, and only subdivided land can be built and leased or titled, little land is available for purchase or building. As a result, there is a complex system of registering rights to property and leases, which may involve land

owners, mortgage bank, commercial banks, future owners of apartments, etc. Many months, and even years, may elapse between the time a borrower moves into a completed apartment that was purchased and the actual registration of a title for the apartment. This complexity has led to estimations that as many as 400,000 units are not properly registered.

Foreclosure. One of the consequences is that lenders depend on guarantors rather than foreclosure on the property as collateral to secure the mortgage loan. While foreclosure is a legal possibility, courts in practice have been reluctant to agree to foreclosure. Until recently, lenders have taken recourse to the guarantors in the event of non-payment. However, the legislature recently enacted legislation which provides that the lenders must proceed with foreclosure before they can have recourse to the guarantors.

Delinquencies. Housing loan delinquencies (3 months past due) average from 0.9%-1.0% of loans outstanding, although one bank reported only about 0.5% past due.

2. Government Programs

The Government of Israel provides financing support for first time home buyers through a number of programs. Eligibility is determined through a point system based on such factors as number of brothers and sisters, service in military, newlyweds, number of children, newcomers. The potential home purchaser gets a certificate for the amount of points. The mortgage bank determines government program benefits the purchaser is entitled to receive and then evaluates the creditworthiness of the borrower using the mortgage bank's normal lending criteria. The number of variations and changes in government programs have complicated administration of the government programs, leading some mortgage banks to designate government program experts in the organization to assure that the mortgage bank is making the government loans correctly. The mortgage bank receives a fee for managing the government loan program. The fees are said to be adequate.

Rates and Terms. Right now the maximum loan under the government programs is Sh 70,000 at an interest rate that is 80% of the consumer price index for 25 years, which now would be equivalent to 4% plus linkage or about 16%. The maximum amount is now generally insufficient to purchase a home, primarily because it has not been increased for several years, while housing prices have increased quite dramatically. As a result, most home buyers also take out a supplemental loan at the normal mortgage bank rate. A typical blended rate now would be 4.8% plus linkage for a 20 year term.

Loan to Value Ratio. The loan to value ratio for a government loan is normally 75% and for a private mortgage bank loan it is 50%. The usual percentage of income dedicated to loan repayment is 25%, but may go up to 30% in certain circumstances (e.g. two income household with no children). Loans are denominated in dollars and repaid in shekels, which means that the mortgage banks have inflation protection. The practice of denominating in dollars and adjusting rates monthly according to the cost of living index were adopted when Israel experienced hyper-

inflation in the early 1980s.

Special programs for certain groups may determine the exact benefits which home buyers may obtain, i.e. newcomers. Some programs also have a grant component of 15%, received via a 1% reduction in principal for each of 15 years.

Commercial banks lend for housing construction under government programs. Loans carry incentives, including a guarantee of repurchase by the government in the event units are not sold.

The Ministry of Housing runs the Israeli Government housing subsidy programs using budgeted moneys managed by the Ministry of Finance. Housing subsidies have been very substantial in the past and budget reform housing has been de-emphasized and the relative amount of subsidy decreased. The lack of available affordable units due primarily to inflation in housing prices has led to calls for increasing housing support once again.

C. ANALYSIS OF CAPITAL GRANTS (SUBSIDIES) RELATED TO THE GAZA HOUSING PROJECT

When the recommendations relating to interest rates and terms are applied to the Gaza Housing Project and take into consideration the incomes of the potential beneficiaries that have made application to the PHC, it is clear that the Al Karama Towers units when priced for full cost recovery will not be affordable to most applicants.

Detailed scenarios follow which illustrate the loan requirements for recovering the full price loan amount for the two types of units in Al Karama Towers, indicate what is affordable and quantify the shortfall under the recommended loan terms and conditions. Alternate scenarios with regard to interest rate, term and downpayment are presented on a summary basis and with detail for each of the four income levels - \$400, \$500, \$600, and \$700.

The major assumptions are presented below:

Capital Grants in the Al Karama Towers Project

Assumptions

1	Cost of Unit A:	\$48,832
2	Cost of Unit B:	\$43,319
3	Total Project Cost: (144 A Units, 48 B Units)	\$9,111,120
4	Interest rate:	9%
5	Down-Payment: 25% - loan to value ratio:	75%
6	Maximum Term (interest not exceed principal of loan) in Years:	18
7	Loan Repayment Installment to Income:	30%
8	Loan on Unit A:	\$36,624
9	Loan on Unit B:	\$32,489
10	Total Loan Amount for Full cost Recovery (144 A Units, 48 B Units)	\$6,833,340

Based on the above assumptions the following maximum affordable loans are calculated for each of the four income levels.

Maximum Affordable Loan Size

11	Income/mo	\$400	\$500	\$600	\$700
12	Maximum Affordable Loan	\$12,814	\$16,018	\$19,222	\$22,425

Assuming that the distribution of incomes is similar to the preliminary review of PHC applicants, the following numbers of beneficiaries would be in each income category for Units A and B.

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	Income Level				
	\$400	\$500	\$600	\$700	Total
13 # Beneficiaries					
14 Unit A	37	53	29	25	144
15 Unit B	13	18	9	8	48

Relating this distribution to the maximum affordable loan, results in the following Capital Grants (subsidies) for Units A and B, and the total for the Al Karama Project, for the proposed interest rate and term.

Base Case:	Income Level				
Capital Grants - Subsidies	\$400	\$500	\$600	\$700	Total
16 Subsidy: Unit A	\$23,810	\$20,606	\$17,402	\$14,199	
17 Subsidy: Unit B	\$19,675	\$16,471	\$13,268	\$10,064	
18 Total Subsidy:	\$1,136,727	\$1,388,598	\$624,077	\$435,481	\$3,584,884

Calculating the percentage of subsidies relative to the cost and the loan amount for each income category and type of unit, shows the following.

	Income Level				
Subsidy as	\$400	\$500	\$600	\$700	Total
% of Total GHP Cost					
% Subsidy Unit A	49%	42%	36%	29%	
% Subsidy Unit B	45%	38%	31%	23%	
% of Total Cost					39%
Subsidy as % of Total Loan Amount					
% Subsidy Unit A	65%	56%	48%	39%	
% Subsidy Unit B	61%	51%	41%	31%	
% of Total Loan Amount					52%

Several other scenarios were calculated to determine the effects of changes in interest rate and term. In line number 19 below, the interest rate is lowered to 8% on the same 18 year term, which results in a \$228,000 reduction and lowers the subsidy to 49% of the loan amount. At 7% (Line 20), the subsidy reduces by another \$253,000 to 45%. If the term were shortened to 15 years at the base case 9% interest (line 21), the subsidy increases by \$249,000 from the base case with an 18 year term and reaches 56%. If the downpayment were reduced to 20%, the subsidy would again increase (by \$705,000 over the Base Case) at the lowered 15 year term, with the subsidy reaching 63%.

**Other Scenarios:
Subsidies Required**

Income Level	\$400	\$500	\$600	\$700	Total
19 Total Subsidy: 8%, 18 yrs.	\$1,091,705	\$1,308,684	\$572,752	\$383,480	\$3,356,620
20 Total Subsidy: 7%, 18 yrs.	\$1,041,705	\$1,219,935	\$515,752	\$325,731	\$3,103,123
21 Total Subsidy: 9%, 15 yrs.	\$1,185,888	\$1,475,859	\$680,120	\$492,262	\$3,834,129
22 Total Subsidy: 20% D/P, 9%, 15 yrs.	\$1,304,384	\$1,644,251	\$770,420	\$570,629	\$4,289,685

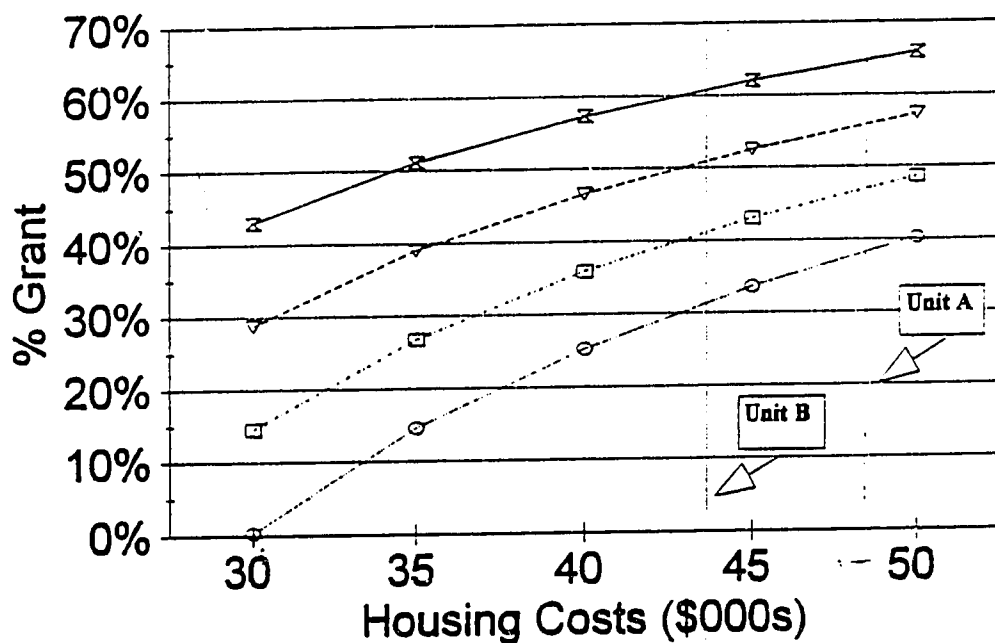
The tables on the following pages show the results in greater detail of the Base Case scenario at 9% and the lowered interest rate scenarios of 7%, and 8% for terms of 18 and 15 years.

Because the GHP funds are grants, the PHC has no out of pocket cost of funds. It could be considered that the amount earned above the cost of funds, less administration and loan loss provisions, are returned to the revolving fund, thus reducing the amount of capital grant or subsidy. Under the proposed loan terms, the net present value of 6% (9% less 2% administration fee and 1% loan loss provision) of monthly payments over 18 years represents the amount that is returned to the revolving fund. As this income is collected over the life of the loan, the net present value is calculated to show the actual value of the future income stream. Subtracting the net present value from the capital grant total equals the actual subsidy. This net present value calculation results in a reduction in the capital grant subsidy of almost \$714,000, and the percentage of subsidy on the loan amount reduced to 32% of the total project cost and about 42% of the loan amount. An argument could be made that the actual earnings that are considered in this calculation should be slightly above the 5% LIBOR representing an implied cost to PHC. At 5%, the net present value calculation results in a \$695,000 reduction, modestly lower than at the 6% rate, but not enough to have much affect on the percentage of capital grant calculations.

The graph below shows the percentage of capital grants which would be required for income levels from \$400 to \$700 on housing units of different values, including Al Karama Towers Units A and B. This high level of subsidy suggests that future projects must lower costs through changes in standards, design changes, minimum interior finishing, lower priced land, cross-subsidies, etc.

The temptation to lower interest rates to reduce the subsidy is best avoided for such rate reductions would have the potential for distortion in market interest rates. Such actions may have long term consequences far more costly than the capital grants in the Gaza project.

Capital Grant % vs. Housing Cost by Income Level



x \$400 Income
 v \$500 Income
 □ \$600 Income
 ○ \$700 Income

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SUBSIDIES FOR AL KARAMA TOWERS PROJECT: BY FREQUENCY OF APPLICATION

Income (\$/Month)	No. of Applications	Unit Distribution		15 Yrs. @ 9%			18 Yrs. @ 9.0%		
		"A" Units	"B" Units	"A" Units	"B" Units	Total Subsidy	"A" Units	"B" Units	Total Subsidy
\$700	196	25	8	397,994	94,278	492,272	354,978	80,513	435,491
\$600	232	29	9	547,449	132,683	680,132	504,679	119,409	624,089
\$500	428	53	18	1,157,274	318,606	1,475,880	1,092,136	296,484	1,388,620
\$400	303	37	13	917,347	238,556	1,185,903	880,968	255,774	1,136,742
Totals	1,159	144	48	3,020,063	814,123	3,834,186	2,832,761	752,180	3,584,941

SUBSIDIES FOR AL KARAMA TOWERS PROJECT: BY AFFORDABILITY @ \$700/ MONTH

Income (\$/month)	No. of Applications	Unit Distribution		15 Yrs. @ 9%			18 Yrs. @ 9%		
		"A" Units	"B" Units	"A" Units	"B" Units	Total Subsidy	"A" Units	"B" Units	Total Subsidy
\$700	196	144	48	2,292,444	565,667	2,858,111	2,044,674	483,078	2,527,751
Totals	196	144	48	2,292,444	565,667	2,858,111	2,044,674	483,078	2,527,751

Assumptions

"A" model = 144 units

"B" model = 48 units

Total = 192 Units

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COST OF AL KARAMA TOWERS PROJECT

Cost Components		Total Cost	Cost/m2	A Unit Cost	B Unit Cost
1. Land Purchase		987,216	42.7	5,291	4,694
2. Construction		6,915,000	298.9	37,062	32,877
3. Design		65,000	2.8	348	309
4. Building Permit		165,690	7.2	888	788
5. Sub-Total A		\$8,132,906	\$351.5	\$43,589	\$38,668
6. PHC Administration					
7. Full-time Engineers (2)		30,000	1.3	161	143
8. Allocated Indirect Costs		120,000	5.2	643	571
9. Total Administrative Costs		150,000	6.5	804	713
10. Sub-Total B		\$8,282,906	\$358.0	\$44,393	\$39,381
11. Profit /Land Appreciation @	10%	828,291	35.8	4,439	3,938
12. Grand Total		\$9,111,197	\$393.8	\$48,832	\$43,319
13. Down Payment @	25%	(2,277,799)	(98.5)	(12,208)	(10,830)
14. Loan Amount		\$6,833,397	\$295.4	\$36,624	\$32,489

Assumptions

"A" model =144 units @ m2	124
"B" model = 48 units @ m2	110
Total m2 for 192 Units	23,136

Down Payment	25%
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AL KARAMA TOWERS "A" UNIT

ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$700/MONTH

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	371	350	329	343	320	299
4. Income Required (\$)/Month	1,238	1,167	1,097	1,143	1,068	996
5. Available \$ for Repayment	210	210	210	210	210	210
6. Affordable \$ Loan Amount	20,705	21,975	23,364	22,425	24,001	25,751
7. Subsidy \$ Required	15,920	14,650	13,261	14,199	12,623	10,873
8. Subsidy as % of Loan Amount	43.5%	40.0%	36.2%	38.8%	34.5%	29.7%

Assumptions

"A" Unit Loan Amount	\$36,624		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$700		
Down Payment	25%		

**AL KARAMA TOWERS "A" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$600/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	371	350	329	343	320	299
4. Income Required (\$)/Month	1,238	1,167	1,097	1,143	1,068	996
5. Available \$ for Repayment	180	180	180	180	180	180
6. Affordable \$ Loan Amount	17,747	18,835	20,026	19,222	20,572	22,072
7. Subsidy \$ Required	18,878	17,789	16,598	17,403	16,052	14,552
8. Subsidy as % of Loan Amount	51.5%	48.6%	45.3%	47.5%	43.8%	39.7%

Assumptions

"A" Unit Loan Amount	\$36,624		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$600		
Down Payment	25%		

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AL KARAMA TOWERS "A" UNIT**ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$500/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	371	350	329	343	320	299
4. Income Required (\$)/Month	1,238	1,167	1,097	1,143	1,068	996
5. Available \$ for Repayment	150	150	150	150	150	150
6. Affordable \$ Loan Amount	14,789	15,696	16,688	16,018	17,144	18,394
7. Subsidy \$ Required	21,835	20,928	19,936	20,606	19,481	18,231
8. Subsidy as % of Loan Amount	59.6%	57.1%	54.4%	56.3%	53.2%	49.8%

Assumptions

"A" Unit Loan Amount	\$36,624		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$500		
Down Payment	25%		

**AL KARAMA TOWERS "A" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$400/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	371	350	329	343	320	299
4. Income Required (\$)/Month	1,238	1,167	1,097	1,143	1,068	996
5. Available \$ for Repayment	120	120	120	120	120	120
6. Affordable \$ Loan Amount	11,831	12,557	13,351	12,814	13,715	14,715
7. Subsidy \$ Required	24,793	24,067	23,274	23,810	22,909	21,910
8. Subsidy as % of Loan Amount	67.7%	65.7%	63.5%	65.0%	62.6%	59.8%

Assumptions

"A" Unit Loan Amount	\$36,624		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$400		
Down Payment	25%		

**AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$700/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	330	310	292	304	284	265
4. Income Required (\$)/Month	1,098	1,035	973	1,014	948	883
5. Available \$ for Repayment	210	210	210	210	210	210
6. Affordable \$ Loan Amount	20,705	21,975	23,364	22,425	24,001	25,751
7. Subsidy \$ Required	11,785	10,515	9,126	10,064	8,488	6,738
8. Subsidy as % of Loan Amount	36.3%	32.4%	28.1%	31.0%	26.1%	20.7%

Assumptions

"B" Unit Loan Amount	\$32,489		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$700		
Down Payment	25%		

**AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$600/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	330	310	292	304	284	285
4. Income Required (\$)/Month	1,098	1,035	973	1,014	948	883
5. Available \$ for Repayment	180	180	180	180	180	180
6. Affordable \$ Loan Amount	17,747	18,835	20,026	19,222	20,572	22,072
7. Subsidy \$ Required	14,743	13,654	12,463	13,268	11,917	10,417
8. Subsidy as % of Loan Amount	45.4%	42.0%	38.4%	40.8%	36.7%	32.1%

Assumptions

"B" Unit Loan Amount	\$32,489		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$600		
Down Payment	25%		

AL KARAMA TOWERS "B" UNIT**ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$500/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	330	310	292	304	284	265
4. Income Required (\$)/Month	1,098	1,035	973	1,014	948	883
5. Available \$ for Repayment	150	150	150	150	150	150
6. Affordable \$ Loan Amount	14,789	15,696	16,688	16,018	17,144	18,394
7. Subsidy \$ Required	17,700	16,793	15,801	16,471	15,346	14,096
8. Subsidy as % of Loan Amount	54.5%	51.7%	48.6%	50.7%	47.2%	43.4%

Assumptions

"B" Unit Loan Amount	\$32,489		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$500		
Down Payment	25%		

**AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$400/MONTH**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	330	310	292	304	284	265
4. Income Required (\$)/Month	1,098	1,035	973	1,014	948	883
5. Available \$ for Repayment	120	120	120	120	120	120
6. Affordable \$ Loan Amount	11,831	12,557	13,351	12,814	13,715	14,715
7. Subsidy \$ Required	20,658	19,932	19,139	19,675	18,774	17,774
8. Subsidy as % of Loan Amount	63.6%	61.4%	58.9%	60.6%	57.8%	54.7%

Assumptions

"B" Unit Loan Amount	\$32,489		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$400		
Down Payment	25%		

**LOAN PROGRAM FOR THE GAZA HOUSING PROJECT
DIVISION OF LABOR**

A lending program, including the one to be implemented for the Gaza Housing Project, involves many basic functions. These functions must be identified and then specific responsibility assigned so they will be carried out. These functions normally include:

- (1) marketing and publicity
- (2) receiving the loan applications, reviewing them, and executing the initial screening based upon a social survey, in the loan origination process
- (3) processing the loan applications and conducting the credit analysis and any other related activities to complete the underwriting phase of the loan
- (4) deciding upon the final approval of the loan
- (5) advising the successful applicants of loan approval and assuring that all terms and conditions applicable are thoroughly understood by the borrower
- (6) completing the loan documentation
- (7) opening the loan account, and the loan files, and maintaining the same in good order
- (8) following up on the collection of the repayment installments on a regular and strict basis

In addition, there are other functions related to the need to determine and track all capital grants that may be provided. The process for handling Capital Grants is summarized below and reference is made to these functions in the description of responsibilities of the Managing Banks and the PHC which follows.

- The PHC informs the Managing Bank(s) of the maximum loan to which the beneficiary is entitled.
- The Managing Bank(s) confirms the creditworthiness of the beneficiary and the guarantors for the PHC approved maximum amount and informs PHC if the beneficiary can afford a larger loan (with less subsidy) or a reduced loan. The subsidy amount is adjusted accordingly.
- The loan contract indicates the full cost recovery amount, the subsidy and the reduced loan amount which the Beneficiary must pay.
- The Managing Bank(s) track in their MIS systems the subsidies granted and report periodically to PHC.
- In the event of foreclosure, the amount of the subsidy will be recovered from the foreclosure sale price if possible and the foreclosed beneficiary will have no rights to the proceeds from the foreclosed property.

Taking into consideration the current expertise in loan processing of local financial institutions that might be designated as Managing Banks for implementation of the GHP, responsibilities could be assigned as follows:

Publicity and Marketing. Publicity and marketing of the project, and the loan program. The PHC is primarily responsible for publicizing and marketing its programs. In the future, as the number of projects increases, it would be useful to have the Managing Banks undertake marketing of the loan program. This would enhance the perception of borrowers that loans are being administered like all private sector loans which must be repaid.

Application Screening. Receiving and reviewing the loan applications, carrying out the initial screening and the social surveys is being undertaken by the PHC. In the future, it would be preferable to have loan applications made directly to the Managing Banks. The PHC could continue to pre-qualify applicants for eligibility and make final decisions on loans.

Pre-qualifying Applicants. PHC identifies and qualifies eligible applicants through use of a computerized numerical weighing system which incorporates criteria for beneficiary selection based upon the applicants' direct income, regular financial commitments, profession, other sources of income, age, family social status, existing housing conditions and etc.

Initial Capital Grant Determination. As part of the applicant screening process, PHC determines the amount and acceptability of any *capital grant* that might be required through analysis and verification of income of pre-qualified applicants. *Capital grant* information is recorded and is taken into consideration in the loan approval process.

Over time, these pre-qualification functions could also be assumed by the Managing Bank(s), applying specific guidelines set by the PHC. As noted above, having the Managing Bank(s) be the main point of contact would serve to reinforce a private sector orientation of the program. Also, the Managing Bank(s) would obtain more extensive experience in housing lending and the PHC could concentrate on a policy rather than an implementation role.

Credit Analysis. The Managing Bank(s) review applications forwarded to them from the PHC and undertake a credit analysis of the pre-qualified applicants together with their guarantors.

As part of credit analysis, the Managing Bank(s) conduct an independent computation of the applicants ability to repay the loans and the level of *capital grant* needed (if any) - within established underwriting guidelines.

Loan Recommendations. The Managing Bank(s) make recommendations for approval or denial of loan applicants based on credit analysis. The Bank specifies loan terms and conditions, clearly indicating the specific amount of any *capital grants* that may be required. These recommendations are submitted to PHC for final decision.

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The PHC makes a decision on loan applications based on its pre-qualification and the Managing Bank's recommendations. All approvals specify the amount of the *capital grant*. The PHC tracks loans approved and amounts of *capital grants*. The PHC informs the Managing Bank of their decision and the amount of *capital grant*.

The Managing Bank then carries out the following responsibilities, just as it would for any of its own loans:

- (1) Calls the beneficiaries, and advises them of loan approvals with all terms and conditions
- (2) Completes the loan documentation with the beneficiary, and ensures that the borrower and the guarantors thoroughly understand all the terms and conditions of the loan.
- (3) Opens a saving account for the contract saving plan to build up the down payment (if a contract savings plan is operational).
- (4) Opens the loan account in due course, and the loan file.
- (5) Maintains and updates the loan accounts and loan files.
- (6) Collects in a timely manner, the monthly repayment installments of principal and interest, all through the life of the loan, and updates the bank records accordingly.
- (7) Computes the exchange rate adjustments.
- (8) Updates periodically PHC and the borrowers about the loan status.
- (9) Tracks and periodically informs PHC as to the amount of *capital grants* associated with outstanding loans.
- (9) Monitors the delinquencies and promptly takes the necessary actions strictly and aggressively to follow up on delinquent borrowers .
- (10) Enforces the guarantees, if necessary.
- (11) Identifies and follows up any legal actions against delinquent borrowers and guarantors, if deemed necessary, with PHC concurrence.

It is worth noting from the above, that the Managing Bank would assume the full responsibility of dealing with the approved beneficiaries after the issuance of the final approval by PHC of the loan application. This approach is recommended to make it clear to the borrowers as early as possible that the loan offered to them is a bank loan, and they have no further relation with any other party regarding the lending business of the Managing Bank.

It is highly recommended to support the designated Bank(s) all through this process with appropriate technical assistance in order to build a sound working system for credit analysis, affordability analysis, loan documentation, loan accounts and file maintenance, and collection follow up of repayment systems.

A chart which summarizes the division of labor as detailed above is shown below.

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GHP LOAN PROCESSING FUNCTIONS AND RESPONSIBILITIES		
	Role	Responsible Entity
1 -Marketing	Publicize and market the housing projects Publicize and market the lending program.	PHC PHC, Managing Banks
2 - Receive Applications	Receive and review loan applications, carrying out the initial screening and the social surveys	PHC
3 -Pre-qualify Applicants	Qualify and identify eligible applicants through use of computerized numerical weighing system which incorporates criteria for beneficiary selection based upon the applicants' direct income, regular financial commitments, profession, other sources of income, age, family social status, existing housing conditions and etc.	PHC
4 - Initial Determination of Requirements for <i>Capital Grants</i>	Determine the amount and acceptability of any <i>capital grant</i> that might be required through analysis and verification of income of pre-qualified applicants.	PHC
5 - Analyzing credit - worthiness	Review applications and undertake credit analysis of the initially pre-qualified applicants together with their guarantors. As part of credit analysis, conduct an independent computation of the applicants ability to repay the loans and the level of <i>capital grant</i> needed (if any) - within established underwriting guidelines.	Managing Bank
6- Loan Recommendations	Make recommendations for approval or denial of loan applicants based on credit analysis. Specify loan terms and conditions, clearly indicating the specific amount of any <i>capital grants</i> that may be required. Submit recommendations to PHC.	Managing Bank

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GHP LOAN PROCESSING FUNCTIONS AND RESPONSIBILITIES		
	Role	Responsible Entity
7 - Loan Approval/Denial	Decide on loan applications based on pre-qualification and the Managing Bank's recommendations. Inform the Managing Bank. Track loans approved and <i>capital grants</i> .	PHC
8- Loan Documenta-tion and Disbursement	Inform applicant and complete loan documentation. Record and track <i>capital grants</i> .	Managing Bank
9. Loan Servicing	Keep complete, detailed, current records on borrowers and loan status. Report regularly on status to PHC	Managing Bank
10. Loan Collection	Pursue delinquent borrowers through established practices currently in use by Banks.	Managing Bank, with PHC concurrence

ANALYSIS OF CAPITAL GRANTS (SUBSIDIES) INCLUDING ON-SITE INFRASTRUCTURE

The initial analysis did not include the on-site infrastructure in the cost of the Al Karama Towers project. The PHC believed strongly that the beneficiaries should not be required to pay for the full cost given the absence of infrastructure in general. Had normal infrastructure been available, the project would have benefited from that infrastructure. It was also indicated that the infrastructure might have benefits beyond the site itself.

This attachment has been prepared to show the impact of the inclusion of US\$1.5 million in on-site infrastructure.

Revised estimates of the cost of the Al Karama Towers Project taking into account a \$1.5 million on-site infrastructure are shown on the following pages, using the same format as Attachment C in the Draft Report. These include charts showing details for various income groups for both the A and B units. In addition, new graphs have been prepared relating the percentage of grant to total housing cost and to loan amount. One set of graphs includes the on-site and the other excludes it (replacing the graph in the draft report).

The following chart summarizes the impact of including on-site infrastructure.

		Without On-Site	Including On-site
1	Cost of Unit A	\$48,832	\$57,676
2	Cost of Unit B	\$43,319	\$51,164
3	Total Project Cost	\$9,111,120	\$10,761,197
4	Interest Rate	9%	9%
5	Down-Payment	25%	25%
6	Maximum Term	18 years	18 years
7	Loan Repayment Installment to Income	30%	30%
8	Loan on Unit A	\$36,624	\$43,257
9	Loan on Unit B	\$32,489	\$38,373
10	Total Loan Amount for Full Cost Recovery	\$6,833,340	\$8,070,897

The net result is an increase of about 18% in the cost of the project and individual units.

Capital Grants would be required as follows under the Base Case Scenario.

Base Case: Capital Grant Subsidies						
	Income Level	400	500	600	700	Total
Without On-Site						
11	Subsidy Unit A	\$23,810	\$20,606	\$17,402	\$14,199	
12	Subsidy Unit B	\$19,675	\$16,471	\$13,268	\$10,164	
13	Total Subsidy	\$1,136,727	\$1,388,598	\$624,077	\$435,481	\$3,584,884
Including On-Site						
14	Subsidy Unit A	\$30,443	\$27,239	\$24,035	\$20,832	
15	Subsidy Unit B	\$25,559	\$22,355	\$19,152	\$16,048	
16	Total Subsidy	\$1,458,633	\$1,846,050	\$869,385	\$648,374	\$4,822,442

The tables on the following pages provide additional detail.

The percentage of subsidy increases correspondingly as shown in the following graphs. The graphs show the percentage of subsidy at various housing costs and loan amounts for different income levels, including and excluding on-site infrastructure.

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COST OF AL KARAMA TOWERS PROJECT (Including On-site Infrastructure)

Cost Components		Total Cost	Cost/m2	A Unit Cost	B Unit Cost
1. Land Purchase		987,216	42.7	5,291	4,694
2. Construction		6,915,000	298.9	37,062	32,877
3. Design		65,000	2.8	348	309
4. Building Permit		165,690	7.2	888	788
5. On-Site Infrastructure		1,500,000	64.8	8,039	7,132
Sub-Total A		\$9,632,906	\$416.4	\$51,629	\$45,800
6. PHC Administration					
7. Full-time Engineers (2)		30,000	1.3	161	143
8. Allocated Indirect Costs		120,000	5.2	643	571
9. Total Administrative Costs		150,000	6.5	804	713
10. Sub-Total B		\$9,782,906	\$422.8	\$52,433	\$46,513
11. Profit /Land Appreciation @	10%	978,291	42.3	5,243	4,651
12. Grand Total		\$10,761,197	\$465.1	\$57,676	\$51,164
3. Down Payment @	25%	(2,690,299)	(116.3)	(14,419)	(12,791)
14. Loan Amount		\$8,070,897	\$348.8	\$43,257	\$38,373

Assumptions

"A" model =144 units @ m2 124

"B" model = 48 units @ m2 110

Total m2 for 192 Units 23,136

Down Payment 25%

AL KARAMA TOWERS PROJECT INCLUDING ON-SITE INFRASTRUCTURE

SUBSIDIES FOR AL KARAMA TOWERS PROJECT: BY FREQUENCY OF APPLICATION

Income (\$/Month)	No. of Applications	Unit Distribution		15 Yrs. @ 9%			18 Yrs. @ 9.0%		
		"A" Units	"B" Units	"A" Units	"B" Units	Total Subsidy	"A" Units	"B" Units	Total Subsidy
\$700	196	25	8	563,807	141,347	705,154	520,791	127,582	648,374
\$600	232	29	9	739,792	185,636	925,428	697,022	172,363	869,385
\$500	428	53	18	1,508,797	424,513	1,933,310	1,443,659	402,390	1,846,050
\$400	303	37	13	1,162,750	345,044	1,507,794	1,126,371	332,262	1,458,633
Totals	1,159	144	48	3,975,146	1,096,540	5,071,686	3,787,844	1,034,597	4,822,441

SUBSIDIES FOR AL KARAMA TOWERS PROJECT: BY AFFORDABILITY @ \$700/ MONTH

Income (\$/month)	No. of Applications	Unit Distribution		15 Yrs. @ 9%			18 Yrs. @ 9%		
		"A" Units	"B" Units	"A" Units	"B" Units	Total Subsidy	"A" Units	"B" Units	Total Subsidy
\$700	196	144	48	3,247,527	848,084	4,095,611	2,999,757	765,495	3,765,251
Totals	196	144	48	3,247,527	848,084	4,095,611	2,999,757	765,495	3,765,251

Assumptions
 "A" model = 144 units
 "B" model = 48 units
 Total = 192 Units

**AL KARAMA TOWERS "A" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$700/MONTH
(Including On-Site Infrastructure)**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	439	413	389	405	378	353
4. Income Required (\$)/Month	1,462	1,378	1,296	1,350	1,262	1,176
5. Available \$ for Repayment	210	210	210	210	210	210
6. Affordable \$ Loan Amount	20,705	21,975	23,364	22,425	24,001	25,751
7. Subsidy \$ Required	22,552	21,282	19,893	20,832	19,256	17,506
8. Subsidy as % of Loan Amount	52.1%	49.2%	46.0%	48.2%	44.5%	40.5%

Assumptions

"A" Unit Loan Amount	\$43,257		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$700		
Down Payment	25%		

**AL KARAMA TOWERS "A" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$600/MONTH
(Including On-Site Infrastructure)**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	439	413	389	405	378	353
4. Income Required (\$)/Month	1,462	1,378	1,296	1,350	1,262	1,176
5. Available \$ for Repayment	180	180	180	180	180	180
6. Affordable \$ Loan Amount	17,747	18,835	20,026	19,222	20,572	22,072
7. Subsidy \$ Required	25,510	24,422	23,231	24,035	22,685	21,185
8. Subsidy as % of Loan Amount	59.0%	56.5%	53.7%	55.6%	52.4%	49.0%

Assumptions

"A" Unit Loan Amount	\$43,257		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$600		
Down Payment	25%		

**AL KARAMA TOWERS "A" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$500/MONTH
(Including On-Site Infrastructure)**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	439	413	389	405	378	353
4. Income Required (\$)/Month	1,462	1,378	1,296	1,350	1,262	1,176
5. Available \$ for Repayment	150	150	150	150	150	150
6. Affordable \$ Loan Amount	14,789	15,695	16,688	16,018	17,144	18,394
7. Subsidy \$ Required	28,468	27,561	26,568	27,239	26,113	24,863
8. Subsidy as % of Loan Amount	65.8%	63.7%	61.4%	63.0%	60.4%	57.5%

Assumptions

"A" Unit Loan Amount	\$43,257		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$500		
Down Payment	25%		

**AL KARAMA TOWERS "A" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$400/MONTH
(Including On-Site Infrastructure)**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	439	413	389	405	378	353
4. Income Required (\$)/Month	1,462	1,378	1,296	1,350	1,262	1,176
5. Available \$ for Repayment	120	120	120	120	120	120
6. Affordable \$ Loan Amount	11,831	12,557	13,351	12,814	13,715	14,715
7. Subsidy \$ Required	31,426	30,700	29,906	30,442	29,542	28,542
8. Subsidy as % of Loan Amount	72.6%	71.0%	69.1%	70.4%	68.3%	66.0%

Assumptions

"A" Unit Loan Amount	\$43,257		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$400		
Down Payment	25%		

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AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$700/MONTH
(Including On-Site Infrastructure)

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	389	367	345	359	336	313
4. Income Required (\$)/Month	1,297	1,222	1,150	1,198	1,119	1,043
5. Available \$ for Repayment	210	210	210	210	210	210
6. Affordable \$ Loan Amount	20,705	21,975	23,364	22,425	24,001	25,751
7. Subsidy \$ Required	17,668	16,399	15,009	15,948	14,372	12,622
8. Subsidy as % of Loan Amount	46.0%	42.7%	39.1%	41.6%	37.5%	32.9%

Assumptions

"B" Unit Loan Amount	\$38,373		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$700		
Down Payment	25%		

**AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$600/MONTH
(Including On-Site Infrastructure)**

	15	15	15	18	18	18
1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	389	367	345	359	336	313
4. Income Required (\$)/Month	1,297	1,222	1,150	1,198	1,119	1,043
5. Available \$ for Repayment	180	180	180	180	180	180
6. Affordable \$ Loan Amount	17,747	18,835	20,026	19,222	20,572	22,072
7. Subsidy \$ Required	20,626	19,538	18,347	19,151	17,801	16,301
8. Subsidy as % of Loan Amount	53.8%	50.9%	47.8%	49.9%	46.4%	42.5%

Assumptions

"B" Unit Loan Amount	\$38,373		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$600		
Down Payment	25%		

**AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$500/MONTH
(Including On-Site Infrastructure)**

1. Term(Years)	15	15	15	18	18	18
2. Interest Rate/Year	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
3. Repayment(\$)/Month	389	367	345	359	336	313
4. Income Required (\$)/Month	1,297	1,222	1,150	1,198	1,119	1,043
5. Available \$ for Repayment	150	150	150	150	150	150
6. Affordable \$ Loan Amount	14,789	15,696	16,688	16,018	17,144	18,394
7. Subsidy \$ Required	23,584	22,677	21,685	22,355	21,229	19,979
8. Subsidy as % of Loan Amount	61.5%	59.1%	56.5%	58.3%	55.3%	52.1%

Assumptions

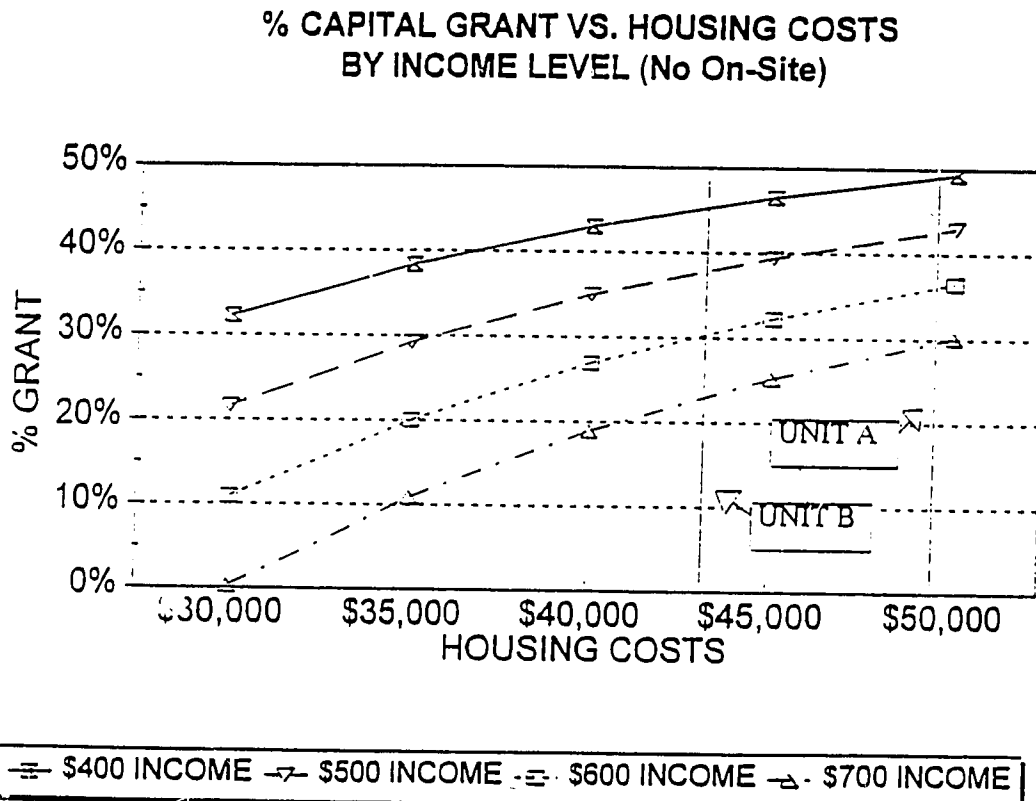
"B" Unit Loan Amount	\$38,373		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$500		
Down Payment	25%		

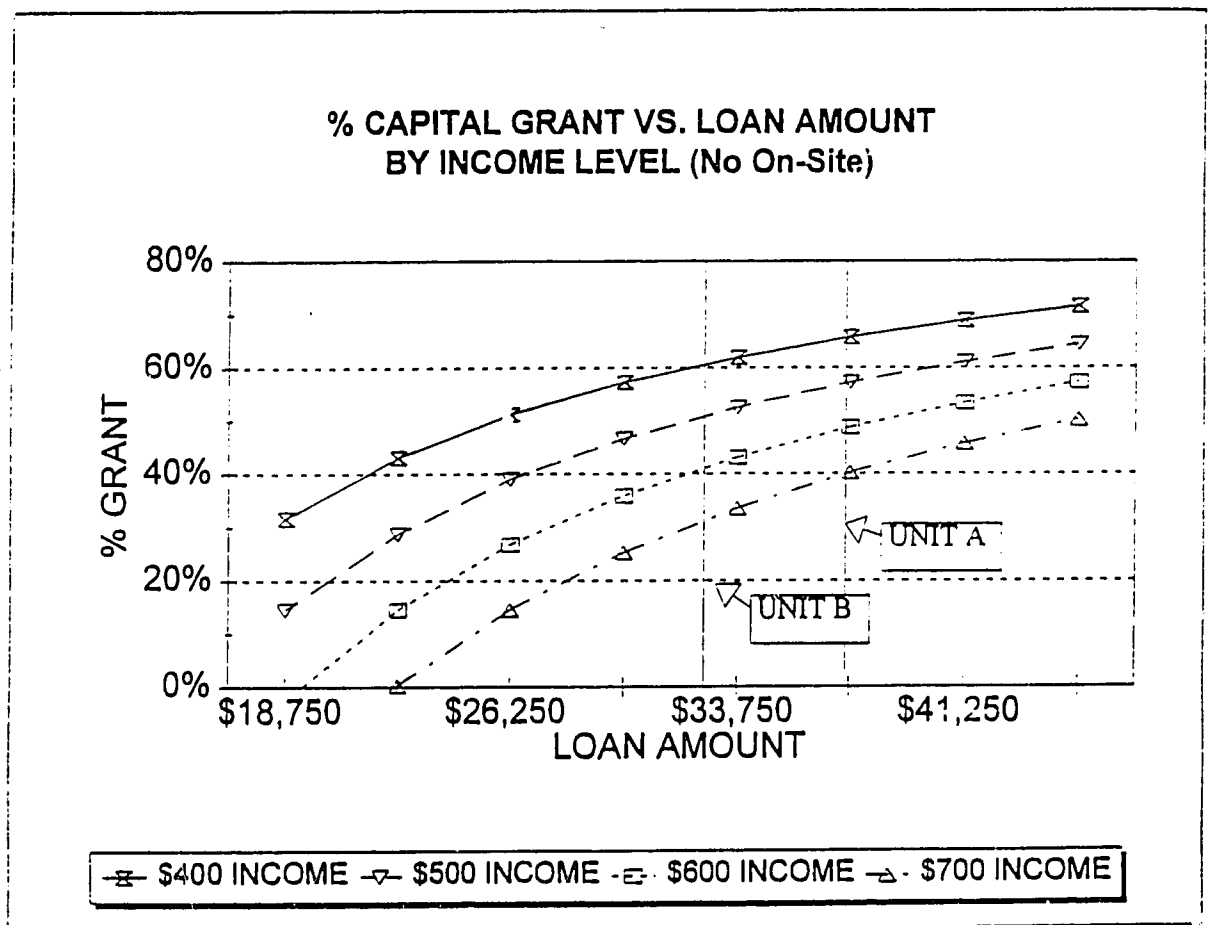
**AL KARAMA TOWERS "B" UNIT
ESTIMATE OF SUBSIDY REQUIREMENTS FOR BENEFICIARY INCOME @ \$400/MONTH
(Including On-Site Infrastructure)**

	15	15	15	18	18	18
1. Term(Years)	9.00%	8.00%	7.00%	9.00%	8.00%	7.00%
2. Interest Rate/Year						
3. Repayment(\$)/Month	389	367	345	359	336	313
4. Income Required (\$)/Month	1,297	1,222	1,150	1,198	1,119	1,043
5. Available \$ for Repayment	120	120	120	120	120	120
6. Affordable \$ Loan Amount	11,831	12,557	13,351	12,814	13,715	14,715
7. Subsidy \$ Required	26,542	25,816	25,022	25,559	24,658	23,658
8. Subsidy as % of Loan Amount	69.2%	67.3%	65.2%	66.6%	64.3%	61.7%

Assumptions

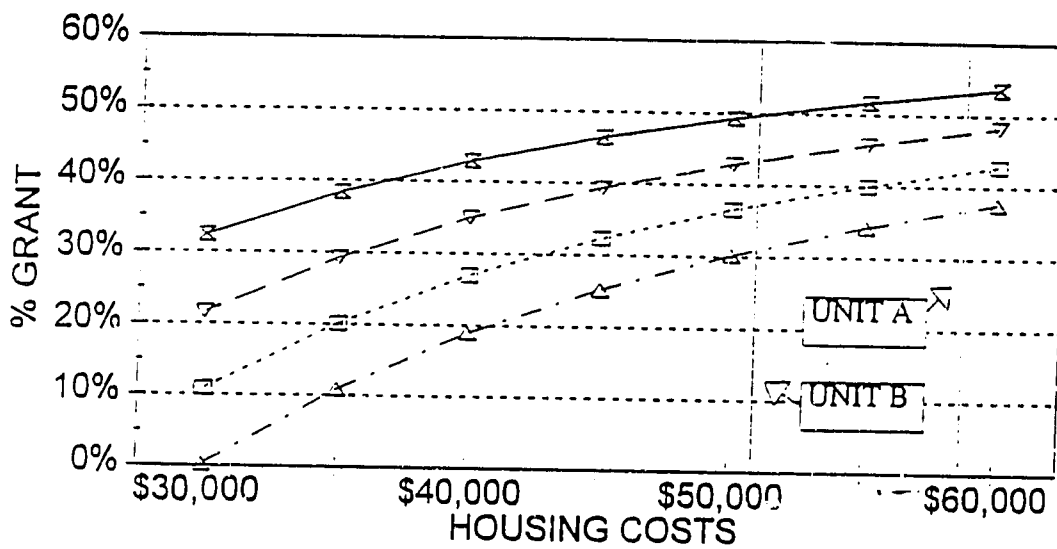
"B" Unit Loan Amount	\$38,373		
Repayment Periods in Years	15	18	
Number of Installments/Year	12		
Total Number of Payment	180	216	
Annual Interest Rates	9.00%	8.00%	7.00%
Interest Rate/Month	0.75%	0.67%	0.58%
Maximum Payment as % of Income	30%		
Household Income/Month	\$400		
Down Payment	25%		



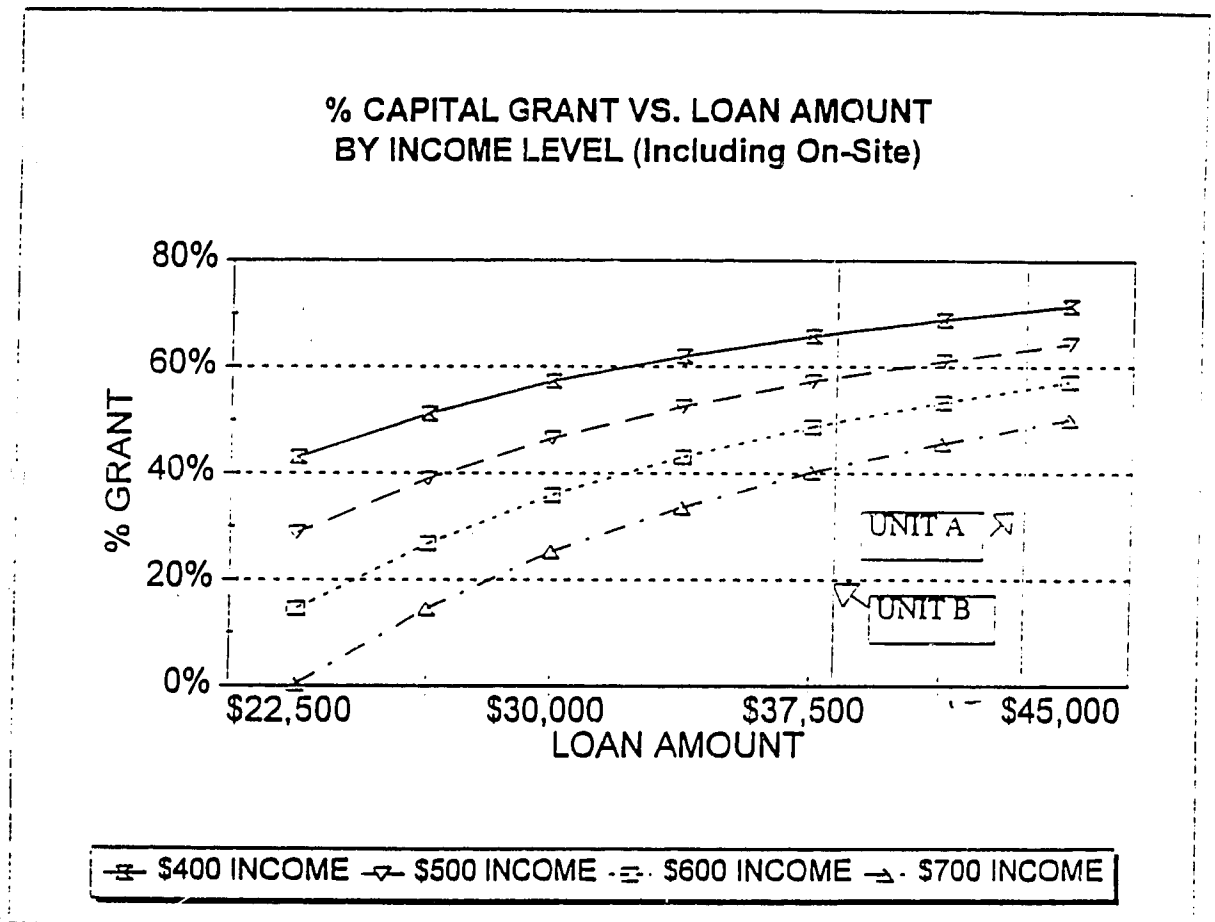


2

**% CAPITAL GRANT VS. HOUSING COSTS
BY INCOME LEVEL (Including On-Site)**



—■— \$400 INCOME —▲— \$500 INCOME —□— \$600 INCOME —△— \$700 INCOME



**DISCUSSION OF OPTIONS FOR LENDING RATES AND TERMS
FOR THE AL KARAMA TOWERS PROJECT**

A Seminar hosted by the PHC was held in Jerusalem at the PHC offices on November 30, 1994. The Seminar was attended by PHC Board Members and executives, local bankers, representatives of USAID and other donor institutions that have housing and urban development programs in the WBG.

At the Seminar, Carol Oman Urban and Bassam M. Atari of FWA/TSS presented the findings and recommendations contained in this Report. During the discussion which ensued, several suggestions were made as to the possibility of increasing the term and/or adjusting the interest rate, rather than using an initial capital grant (subsidy), in order to make the al Karama Towers units affordable to the target population.

Urban and Atari agreed (1) to prepare spreadsheets which would show the effects of these alternate suggestions, and (2) explain more fully the impact on the market of using non-market-based lending terms and conditions.

Spreadsheets were prepared that show (1) the amount of monthly repayments required for terms of 18 years, 20 years, 25 years, and 30 years, at interest rates of 9%, 8%, 7%, 6%, 5%, 4%, 3%, 2% and 1%, (2) the amount which is affordable to beneficiaries earning \$400, \$500, \$600, and \$700 per month, (3) which of the terms and rates would exceed the Ottoman law prohibition of having interest exceed principal during the life of the loan. The difference between including or excluding on-site infrastructure is indicated on each spreadsheet.

Two separate versions of the spreadsheets were prepared based on different cost assumptions: (1) full cost including 10% to compensate for increase in land price and other contingencies; and (2) all costs except the 10%. In addition, a third spreadsheet was prepared that specifically addressed the suggestion of using 2.0% as inflation and 1% as an administrative fee for a total of 3.0%, with a 5% advance commission. The three spreadsheets are found on pages 5-7.

Following the spreadsheets, three tables summarize the results on the spreadsheets by showing at what specific rates and terms the Al Karama Towers units are affordable to the target beneficiaries. These tables illustrate explicitly that changing the interest rate and/or term will not make the units affordable. The three tables are found on pages 8-10.

The results of these various analyses are clear.

- **Al Karama Towers units are basically not affordable to the target beneficiaries, even at very low interest rates**
- **Some form of subsidy will be required regardless of the interest rate and term adopted**
- **In the future, building lower cost units will be important to (1) increase affordability and (2) allow for production of a larger number of units**

We continue to **recommend** the approach of initial capital grants to reduce the required repayment amount to affordable levels, a **market interest rate of 9%**, and a **term of 18 years**.

This approach is recommended for the following reasons:

1. More equitable: the beneficiaries with the greatest need receive the most benefits, and the beneficiaries with the least need receive less benefits.
2. Best use of PHC resources: benefits are targeted to the beneficiaries that need support and are not a windfall for those that can afford to pay, unlike
 - a. lowering of interest rates which
 - i. is windfall for those who could afford to pay higher rate
 - ii. reduces the amounts available for relending
 - b. extension of term which reduces the capacity of PHC to relend to additional beneficiaries in the future.
3. Transparent: PHC knows the amount of the subsidy and the beneficiary who received it. The precise criteria and reasons for capital grants can be identified and applied equitably. The basis for capital grants can be explained.
4. Positive for Future Housing Development and Lending Markets: Rates and terms reflect the potential market and contribute towards developing a potential housing finance market on the West Bank/Gaza.

We do **not recommend reducing the interest rate** for the following reasons:

1. Disincentive for other lenders to lend for low income housing: Other lenders only have access to funds at market rates and therefore must lend at market rates. They will not be willing to lend or able to compete at below market rates. This would also be true for a future Housing Bank.

2. Unnecessary long term benefit: As beneficiary incomes go up over time, they can afford to pay more. Below market interest rates result in greater and greater unneeded benefits accruing to beneficiaries over time.
3. Reduces PHC capacity: PHC inflows of resources are reduced, and therefore its capacity to build more low income units and to lend to targeted beneficiaries is reduced.

We do **not recommend increasing term** beyond 18 years for the following reasons:

1. Slower repayments: The flow of repayments is slower, and as a result, the PHC capacity to relend is slower.
2. Unnecessary subsidy: As beneficiaries' incomes increase over time, the extended term is a windfall benefit - an unnecessary subsidy to households that do not need the benefit - and therefore could be considered a waste of PHC resources.
3. Not common in other countries: Most countries of the world do not lend for 25-30 year terms for residential real estate. Such long residential loan terms usually are available only where developed long term funding and secondary mortgage markets operate. Terms of 15 years or less are more common. (Note: Housing Bank of Jordan lends for 12-15 years.)
4. Disincentive to other lenders: Commercial banks in West Bank/Gaza are unlikely to lend for such long terms due to the inability to mobilize funds for such long terms. Therefore, the PHC loan term is a disincentive to market-based lending. This would likely also negatively affect the operations of a future Housing Bank.

We **recommend that a market-based administrative cost of 2%** be included in the interest rate for the following reasons:

1. Consistent with lenders costs: Banks on the West Bank/Gaza, Jordan and elsewhere report at least a 2% loan administration cost.
2. Potential for reduction in quality of service: If Managing Banks receive a lower rate and determine they are losing money providing full management services, they will likely reduce the service they provide. This has been the experience in other countries. The PHC will then have to assume the tasks itself or increase administrative fees to Managing Banks.
3. Disincentive for other lenders: Lower administrative rates will be a disincentive for lending for low income housing by banks. Too low administrative rates would likely also negatively affect the operations of a future Housing Bank.

We recommend using the **full cost of Al Karama Towers** as the basis for calculating capital grants/subsidies for the following reasons:

1. Sound Methodology: PHC knows the true cost of the project, and can apply the same methodology to all projects and determine what changes to make in future projects.
2. Transparent: The true cost of the project, the actual amount of the subsidy and the beneficiary who received it, can be identified. The precise criteria and reasons for capital grants can be identified and applied equitably. The basis for capital grants can be explained.
3. Disincentive to Private Developers: Not taking into account full costs reduces the ability and willingness of private developers to build for low income beneficiaries as private developers must take into account full costs, including the market price of land and the cost of replacing land sold.
4. Limited PHC Resources: PHC only has resources to provide a small portion of the housing required by low income households, and therefore should not take measures which would be disincentives to private market development of housing.

Non-market interest rates and other terms can cause distortions in the market with unintended effects. Below market interest rates discourage lenders from making loans. Lenders will not lend unless they can charge an amount for a loan which (1) covers the cost to obtain funds (deposits or other borrowings) on which they pay interest, (2) covers administrative costs, (3) compensates for losses due to non-payment by borrowers, and (4) makes a return which compensates them for the risk of making the loan which is equal to or greater than could be obtained from activities of similar risk. If the PHC lends at lower rates, potential borrowers will expect the lower rate, a rate which the unsubsidized lenders cannot match. The same is true of extending loan terms substantially beyond funding available to the market.

Below market interest rates are costly as a subsidy. Most countries that offered very low rates for residential housing have increased rates to or near market rates, and/or have severely cut back on the amount of subsidized credit available, due in large part to the high cost to the government. Voucher and other direct subsidy approaches are being used more frequently because the beneficiary and the amount of subsidy can be fixed more precisely, allowing for targeting of scarce resources to the most needy beneficiaries. Governments have realized that their resources are limited and should be used only for the most needy where the market cannot provide resources.

Financial markets are now developing in the West Bank/Gaza. Whatever interest rate subsidies and extended terms that are used will affect those markets. Allowing financial markets to develop and shaping housing finance policy for low income households taking into account those markets may be the appropriate strategy.

Al Karama Towers Repayment/Mo Based on Full Unit Cost, 18 Year Repayment

Max. Afford.											
\$ Income/mo	Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$343	\$320	\$299	\$278	\$257	\$238	\$220	\$202	\$185
\$600	180	Unit B Repayment	\$304	\$284	\$265	\$246	\$228	\$211	\$195	\$179	\$164
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$405	\$378	\$353	\$328	\$304	\$281	\$259	\$239	\$219
		Unit B Repayment	\$359	\$336	\$313	\$291	\$270	\$250	\$230	\$212	\$194

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Full Unit Cost, 20 Year Repayment

Max. Afford.											
\$ Income/mo	Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$330	\$306	\$284	\$262	\$242	\$222	\$203	\$185	\$168
\$600	180	Unit B Repayment	\$292	\$272	\$252	\$233	\$214	\$197	\$180	\$164	\$149
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$389	\$362	\$335	\$310	\$285	\$262	\$240	\$219	\$199
		Unit B Repayment	\$345	\$321	\$298	\$275	\$253	\$233	\$213	\$194	\$176

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Full Unit Cost, 25 Year Repayment

Max. Afford.											
\$ Income/mo	Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$307	\$283	\$259	\$236	\$214	\$193	\$174	\$155	\$138
\$600	180	Unit B Repayment	\$273	\$251	\$230	\$209	\$190	\$171	\$154	\$138	\$122
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$363	\$334	\$306	\$279	\$253	\$228	\$205	\$183	\$163
		Unit B Repayment	\$322	\$296	\$271	\$247	\$224	\$203	\$182	\$163	\$145

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Full Unit Cost, 30 Year Repayment

Max. Afford.											
\$ Income/mo	Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$295	\$269	\$244	\$220	\$197	\$175	\$154	\$135	\$118
\$600	180	Unit B Repayment	\$261	\$238	\$216	\$195	\$174	\$155	\$137	\$120	\$104
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$348	\$317	\$288	\$259	\$232	\$207	\$182	\$160	\$139
		Unit B Repayment	\$303	\$282	\$255	\$230	\$206	\$183	\$162	\$142	\$123

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Unit Cost (Less 10%), 18 Year Repayment

\$ Income/mo	Max. Afford. Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$291	\$272	\$253	\$236	\$218	\$202	\$186	\$171	\$157
\$600	180	Unit B Repayment	\$258	\$241	\$225	\$209	\$194	\$179	\$165	\$152	\$140
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$344	\$321	\$299	\$278	\$258	\$239	\$220	\$202	\$186
		Unit B Repayment	\$305	\$285	\$266	\$247	\$229	\$212	\$195	\$180	\$165

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Unit Cost (Less 10%), 20 Year Repayment

\$ Income/mo	Max. Afford. Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$280	\$260	\$241	\$223	\$205	\$188	\$172	\$157	\$143
\$600	180	Unit B Repayment	\$248	\$231	\$214	\$197	\$182	\$167	\$153	\$139	\$127
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$330	\$307	\$285	\$263	\$242	\$222	\$204	\$186	\$169
		Unit B Repayment	\$293	\$272	\$252	\$233	\$215	\$197	\$181	\$165	\$150

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Unit Cost (Less 10%), 25 Year Repayment

\$ Income/mo	Max. Afford. Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$261	\$240	\$220	\$200	\$182	\$164	\$147	\$132	\$117
\$600	180	Unit B Repayment	\$231	\$213	\$195	\$178	\$161	\$146	\$131	\$117	\$104
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$308	\$283	\$259	\$236	\$215	\$194	\$174	\$156	\$138
		Unit B Repayment	\$273	\$251	\$230	\$210	\$190	\$172	\$154	\$138	\$123

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

Al Karama Towers Repayment/Mo Based on Unit Cost (Less 10%), 30 Year Repayment

\$ Income/mo	Max. Afford. Repayment	Interest Rate	9%	8%	7%	6%	5%	4%	3%	2%	1%
\$400	120	(No On-Site)									
\$500	150	Unit A Repayment	\$250	\$228	\$207	\$186	\$167	\$148	\$131	\$115	\$100
\$600	180	Unit B Repayment	\$222	\$202	\$183	\$165	\$148	\$132	\$116	\$102	\$89
\$700	210										
		(With On-Site Infrastructure)									
		Unit A Repayment	\$295	\$269	\$244	\$220	\$197	\$175	\$155	\$136	\$118
		Unit B Repayment	\$262	\$239	\$217	\$195	\$175	\$155	\$137	\$120	\$105

Italics: Not affordable by any of target income group

Bold: Interest exceeds Ottoman maximum

SCENARIO:

INTEREST = 2% INFLATION + 1% ADMINISTRATION, 5% COMMISSION

Al Karama Towers Repayment/Mo Based on Full Unit Cost

\$ Income/mo	Max. Afford. Repayment	Interest Rate	18yrs	20yrs	25yrs	30yrs
		(No On-Site)	3%	3%	3%	3%
\$400	120	Unit A Repayment	\$343	\$306	\$236	\$220
\$500	150	Unit B Repayment	\$304	\$272	\$209	\$195
\$600	180					
\$700	210					

(With On-Site Infrastructure)

Unit A Repayment	\$405	\$362	\$279	\$259
Unit B Repayment	\$359	\$321	\$247	\$230

Italics: Not affordable by any of target income group

Al Karama Towers Repayment/Mo Based on Unit Cost (Less 10%)

\$ Income/mo	Max. Afford. Repayment	Interest Rate	18yrs	20yrs	25yrs	30yrs
		(No On-Site)	3%	3%	3%	3%
\$400	120	Unit A Repayment	\$291	\$260	\$220	\$186
\$500	150	Unit B Repayment	\$258	\$231	\$195	\$165
\$600	180					
\$700	210					

(With On-Site Infrastructure)

Unit A Repayment	\$344	\$307	\$259	\$220
Unit B Repayment	\$305	\$272	\$230	\$195

Italics: Not affordable by any of target income group

5% Commission = Addition to loan interest rate 0.25%

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Affordability* of Al Karama Towers Project - Full Cost - With On-Site Infrastructure																
Interest Rate	Income Group															
	\$400/mo.				\$500/mo.				\$600/mo.				\$700/mo.			
	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr
9%																
8%																
7%																
6%																
5%																B
4%															B	A,B
3%												B			A,B	A,B
2%								B			B	A,B		B	A,B	A,B
1%							B	A,B		B	A,B	A,B	B	A,B	A,B	A,B

 = No unit affordable at the rate and term

* A= Unit A is affordable

B = Unit B is affordable

A,B = Units A and B are affordable

A, B in boldface = Interest exceeds Principal over life of loan, in contravention of Ottoman Law

Affordability* of Al Karama Towers Project - Full Cost - Without On-Site Infrastructure																
Interest Rate	Income Group															
	\$400/mo.				\$500/mo.				\$600/mo.				\$700/mo.			
	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr
9%																
8%																
7%																
6%															B	B
5%												B			B	A,B
4%											B	A,B		B	A,B	A,B
3%								B		B	A,B	A,B	B	A,B	A,B	A,B
2%				B			B	A,B	B	A,B	A,B	A,B	A,B	A,B	A,B	A,B
1%				A,B		B	A,B	A,B	B	A,B	A,B	A,B	A,B	A,B	A,B	A,B

☐ = No unit affordable at the rate and term

* A= Unit A is affordable

B = Unit B is affordable

A,B = Units A and B are affordable

A, B in boldface = Interest exceeds Principal over life of loan, in contravention of Ottoman Law

FWA/TSS Gaza Housing Project - December 1994

Affordability of Al Karama Towers Project - Unit Cost Less 10% - Without On-Site Infrastructure																
Interest Rate	Income Group															
	\$400/mo.				\$500/mo.				\$600/mo.				\$700/mo.			
	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr	18yr	20yr	25yr	30yr
9%																
8%																B
7%															B	A,B
6%												B	B	B	A,B	A,B
5%								B			B	A,B	B	B	A,B	A,B
4%							B	A,B	B	B	A,B	A,B	A,B	A,B	A,B	A,B
3%				B			A,B	A,B	B	A,B	A,B	A,B	A,B	A,B	A,B	A,B
2%			B	A,B	B	B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B
1%			A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B	A,B

☐ = No unit affordable at the rate and term

* A= Unit A is affordable

B = Unit B is affordable

A,B = Units A and B are affordable

A, B in boldface = Interest exceeds Principal over life of loan, in contravention of Ottoman Law

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