

HUNGARY

HOUSING GUARANTY HG-001 HOUSING FINANCE RESTRUCTURING PROGRAM PROGRAM DESCRIPTION PAPER

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OFFICIAL EXCHANGE RATES

1989	59 1 HUF/US\$
1990	63 2 HUF/US\$
1991	74 8 HUF/US\$
1992	79 0 HUF/US\$
1993	87 0 HUF/US\$ (April)

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1 INTRODUCTION

This report provides a summary of the proposed Hungary HG-001 and its expected accomplishments over the five year Life of the Project ("LOP") It presents an overview of the economic, financial, market and social conditions in Hungary within which the housing finance sector functions, the principal constraints which impede the transformation of the housing finance sector to a more market-oriented system, and the policy, institutional, legal, financing and operational reforms which should be instituted to overcome these constraints The Project includes both program and policy components whose implementation will facilitate the rationalization of the Hungarian housing finance system

This report also proposes a preliminary Project implementation plan and the expected accomplishments of the Project More definitive Annual Work Plans to be prepared with the Ministry of Finance will provide detailed objectives and implementation strategies for each year of the Project

It is anticipated that the Hungary HG-001 will make available up to US\$ ___ million in Housing Guaranty Resources to the Ministry of Finance ("MOF") which will be utilized to implement policy reforms and programs designed to improve the efficiency and effectiveness of the Hungarian housing finance system HG resources will be used to support policy reforms, including the reduction in mortgage subsidies (facilitated by the introduction of a new mortgage instrument), the reduction and better management of credit risk, and the development of access to long-term investor resources

Program lending will include funding for loans for the construction of or purchase of housing units, for housing rehabilitation and modernization, for construction financing, or for housing related infrastructure The Program will be supported by technical assistance (1) to the government to design and implement effective financing structures for the housing sector and to evaluate approaches to targeting and reducing subsidies and (2) to financial institutions to assist in the implementation of the new mortgage instrument and in the development of more effective loan underwriting and servicing systems and procedures to control and manage risk

2 PROGRAM OBJECTIVES

The principal objective of Hungary HG-001 is to support a substantial ongoing U S effort to assist the Government of Hungary ("GOH") in identifying and

implementing reforms in housing finance policies and programs which will lay the foundation for a stronger, more efficient, and more market-based housing finance system. The restructuring of the housing finance system will also include the greater integration of housing finance into the capital markets so that a broad range of financial institutions and institutional investors can participate in the provision of housing credit, thus deepening the Hungarian financial system. Benefits to the household sector include an increase in the affordability of housing, greater ease of mobility over a lifetime, and increased competition among providers of new housing.

The policy objectives of the Project are to support GOH efforts to reduce and rationalize housing finance subsidies, to remove or mitigate legal and regulatory impediments to the development of a more responsive and competitive housing finance system, and to integrate housing finance into the financial and capital markets. To achieve these goals, the program sets out a phased, interrelated process of reforms in each aspect of the housing finance sector, including loan repayment structure, subsidy provision, credit risk management, liquidity risk management, competition in origination and servicing, and expansion of the funding base.

3 SECTORAL CONTEXT AND CONSTRAINTS

3.1 Sectoral Context

3.1.1 The Economic and Financial Environment in 1993

Hungary is one of the most developed economies in Central and Eastern Europe (CEE), with an estimated per capita GDP of \$3,300 in 1992. The stable political environment and the success of economic reforms to date have created a healthy basis for increased domestic and foreign capital investment and the development of a competitive and efficient private financial sector.

Economic reform has a longer history in Hungary than in other CEE countries. Beginning with the New Economic Mechanism in 1968, a number of substantial reform measures have been introduced over the last 25 years which have resulted in significant progress towards the transition to a market system. In 1992, the private sector accounted for 44 percent of GDP, compared with 31 percent in 1988 and the private sector contribution to GDP is expected to increase to about 50 percent in 1993.

The economic transformation process in Hungary has not been without some dislocations. Over the last three years, the Hungarian economy has suffered from a decline in total output, rising unemployment, high inflation, and a large budget deficit. The economic difficulties in Hungary have been intensified by the collapse of the East European markets. From 1990 to 1992 real GDP declined by an estimated 17 percent. Recent trends indicate a moderate resumption of economic growth. After declines of 11.9 percent in 1991 and 5 percent in 1992, the real GDP is expected to grow by 0 to 3 percent in 1993.

The recession and the restructuring of state-owned enterprises have led to high unemployment. Unemployment grew by 63 percent in 1992 and at year end reached 12.3 percent of the total labor force. However, the trend during the year showed a slowdown in the rate of increase in unemployment. During the first seven months of 1992, the number unemployed rose at a 4.1 percent monthly rate. For the rest of 1992, the monthly rate of increase in unemployment was 2.5 percent and for the first month of 1993, 1 percent.

As in other Eastern European countries, inflation has remained persistently high throughout the recent recession and has had a severe negative impact on the Hungarian economy. Inflation, as measured by the consumer price index, rose from 17 percent in 1989 to 28.9 percent in 1990 and peaked at 35 percent in 1991. The rise in the consumer price level was slower in 1992, but was still a high 23 percent. Inflation during the first quarter of 1993 remained in the 20 to 25 percent range due to the introduction of the value added tax, excise increases, the liberalization of administered utility prices and increases in market prices. The rate of inflation is expected to decelerate over the balance of 1993. The National Bank of Hungary, the Magyar Nemzeti Bank, (MNB) projects a 12 to 15 percent rise in consumer prices and a 9 to 11 percent rise in producer prices for the year. Some private economists are not as optimistic about the outlook for inflation and have forecasted an increase in consumer prices of 20 percent or more for 1993.

The budget deficit in 1992 reached HUF 197.1 billion, 2.8 times the projected HUF 69.8 billion deficit. The poor performance of the Hungarian economy in 1992, a large number of bankruptcies, and tax avoidance by new private companies are cited by the MNB as the principal factors which contributed to the large and unanticipated increase in the deficit. Progress has been made towards reducing GOH subsidies and rationalizing the tax system. Subsidies to business activities and consumers were reduced to 5 percent of GDP in 1992 from 28 percent of GDP in 1986 and the former system of selective taxes has been largely replaced by a system

of value-added and personal and corporate income taxes. The effects of these fiscal reforms should begin to be felt in 1993.

Financing the current budget deficit has had a significant impact on the Hungarian financial markets. According to preliminary data, domestic government debt totalled HUF 2.2 trillion as of the end of 1992. Of this total approximately 74 percent was held by the MNB, with most of the balance held by financial institutions. The GOH's increasing activity as a borrower is expected to have a positive impact on the overall development of the Hungarian money and capital markets as a system of primary government securities dealers and an active secondary market evolve. However, a large volume of risk free, relatively high yielding GOH securities may "crowd out" private investment.

As a result of inflation and the large budget deficit, nominal interest rates in Hungary have been high, although at times inflation has exceeded market interest rates, resulting in negative real returns. During 1992, domestic interest rates on bank loans and deposits fell and that trend has continued during the first quarter of 1993. Interest rates on short term bank loans fell from an average of 35.5 percent in December, 1991 to an average of 28.8 percent at the end of 1992 and the average interest rates charged on longer term bank loans dropped from 34.3 percent to 25.4 percent over the year. Short term bank deposits showed a similar decline, with the average rate paid on 1 to 30 day deposits falling from 25.1 percent to 12.9 percent and the rates on 31 day to one year and over one year deposits declining by 13.7 percent and 13.5 percent respectively.

Interest rates declined further during the first four months of 1993. During the first week of May, 1993, the MNB lowered the base rate from 20 percent to 19 percent and interest rates on deposits at the major Hungarian banks declined to 11 to 13 percent for 30 day deposits, 13 to 16 percent on six month deposits and 15 to 17 percent on one year deposits. The interest rates charged on bank loans have not been reduced to as great an extent. As of early May, 1993, the interest rates charged on bank credits ranged from 22 to 32 percent.

The decline in deposit interest rates in 1992, despite continued high inflation has been attributed to large increases in net household savings. The gross savings of households increased by 32 percent in 1992 and household savings held at Hungarian financial institutions grew by 35.3 percent. Moreover, the outstanding debt of households, including interest debited at the end of the year, increased by only 3.7 percent over the year. As a result of the large increase in household savings and the slow growth in outstanding debt, the net savings position of households

increased by 42.7 percent in 1992. This is generally interpreted as reflecting the adjustment of households to establish personal financial resources in order to deal with the uncertainties of a market economy.

Interest rates on term deposits at Hungarian banks are expected to range from 15 to 20 percent in 1993 while rates charged on loans are expected to range from 25 to 30 percent. The significant net interest margin between the cost of funds for Hungarian banks and the yield on their earning assets has been a subject of concern and criticism. The wide interest spread can be attributed to several factors: inefficient operations and high administrative costs (compounded by a lack of competition), the need for a higher spread on earning assets to offset the expense of provisioning for non-performing assets and the presence of requirements for holding high reserves in low-yielding government debt.

3.1.2 The Hungarian Financial Sector

Since the early 1980s, Hungary has recognized that reform of the financial sector is essential to accomplishment of the country's overall economic stabilization and restructuring program. Financial sector reform has focused on initiatives to increase the use and effectiveness of indirect monetary policy tools to implement monetary policy and to improve the mobilization of financial resources to facilitate economic growth. Over the last five years, the Hungarian government has implemented a number of financial sector reforms to achieve these objectives. The two principal reforms have been:

A. The creation of the first two-tier banking system in the CEE in 1987 in which the commercial banking activities of the National Bank of Hungary ("MNB") were separated from its central banking function and the establishment of privately owned joint stock company banks was authorized, and,

B. The enactment of the National Bank, Banking, Accounting and Bankruptcy Acts in 1991 which established a comprehensive legislative framework for banking and financial intermediation.

Other significant reforms include the authorization of the issuance and trading of shares and the re-opening of the Budapest Stock Exchange, the removal of interest rate controls, the authorization of market financial instruments, the elimination of many restrictions on bank activities, products and services and the passage of the Insurance Act authorizing the establishment of private insurance companies. As a

result of these reforms, Hungary has a more well-developed system of financial institutions than is found in most other CEE countries, including domestic and foreign commercial banks, securities brokerage and investment banking firms, savings cooperatives, and insurance companies

As of the end of 1992, the Hungarian financial sector consisted of 29 commercial banks and 5 specialized financial institutions, excluding institutions in liquidation or receivership, 258 savings cooperatives, 13 insurance companies, and 25 securities brokerage firms. Despite the comparatively large number of financial services firms in operation in Hungary, there is a high degree of concentration in the sector. The four largest Hungarian banks hold two-thirds of all domestic bank assets and the two largest insurance companies account for 62 percent of the net income of the insurance industry. Cross-shareholdings among financial sector firms increase concentration in the financial sector even further.

Despite the progress which has been made towards the development of an efficient and competitive financial sector in Hungary, a number of areas remain which will require further reform and rationalization. The GOH continues to hold large ownership positions in the largest domestic financial firms. As of the end of 1991, the state directly or indirectly, through state-owned enterprises and joint stock companies, owned 68 percent of the share capital of all domestic commercial banks and specialized financial institutions. Approximately 17 percent of total share capital was owned by private investors and 15 percent by foreign investors. As part of its overall privatization program, the GOH will phase out its ownership of financial institutions. The Banking Act of 1991 established a timetable for bank privatization which will restrict state ownership of financial institutions to 25 percent of share capital by January 1, 1997. In the insurance industry, the state owns 35 percent of the shares of Hungaria Insurance Co., Ltd., the largest insurance company in the country, and 20 percent of the second largest insurance company.

Hungarian banks have suffered from poor financial performance because of the burden of non-performing loans in their portfolios, many of which are credits to moribund state-owned enterprises which were inherited when the commercial banks were established in 1987. The imposition of stringent regulatory requirements in 1992 forced banks to establish large provisions for non-performing assets which drastically reduced their profitability for the year. Profitability, asset quality and capital adequacy will remain concerns until the Hungarian economy improves.

Another shortcoming of the Hungarian financial system is the lack of truly long-term funds. In fact, bond issuance with a term of over three years are

considered to be "long-term" and no issuance has been for more than seven years. This is partly because of the great uncertainty about future inflation, but also reflects the lack of investors for whom short-term liquidity is not a paramount concern. Such investors are beginning to emerge, especially in the insurance business and the private pension funds which will replace government pensions as more firms are privatized. These institutional investors will seek longer-term, high quality investments which will earn higher yields than those offered on government bonds. The development of this institutional investor market should result in a stable flow of funds into the capital markets and create the potential for the mobilization of longer term financial resources for housing finance.

3 1 3 The Housing Sector in General

Hungary is a country of homeowners, with less than 20% of the housing units in the rental sector. Even in Budapest, the only large city in Hungary, fewer than half the units are rental. Moreover, the rental sector remains nearly all government-owned, because of extreme legal protections for sitting tenants. Thus, access by new households to housing and by existing households to geographic mobility or to raising or lowering housing quality depends on the effectiveness of the market in owner-occupied housing. Because government production of rental housing has come to standstill and production for sale has also sharply declined since 1990, a revival of housing production also hinges on effective demand for owner-occupied housing.

Construction of new homes has fallen sharply since 1989, accelerating from a downward trend since 1980. In 1992, 25,800 homes were completed, as opposed to 51,500 in 1989. The situation reflects the recent declines in real incomes, rising uncertainty of income and employment, and the rise in interest rates (even net of subsidy), as well as a steady decline in the real value of housing subsidies. Fortunately, the actual housing consumption situation is not that of severe physical shortage, as it is in most other Eastern European countries. Market processes need to be substantially improved, however, including the development of private residential development firms.

Primary responsibility for GOH housing policy and programs at the national level is shared by the Ministry of Social Welfare and the Ministry of Finance, with participation in some cases by the Ministries of the Interior, the Environment, and Industry and Trade. The government has taken a number of steps to reform the housing finance sector, including reducing subsidies on new loans, raising interest rates on older, deeply subsidized loans, and acting to strengthen the banking sector.

and the financial sector in general. However, action on the part of Parliament on a number of key measures has been slow to come, particularly with respect to fostering a private rental market.

Some steps have also been taken by local governments, which now possess the remaining government-owned rental units. The expectation is that most of the remaining government-owned buildings will be privatized, because of the political pressure from the current tenants and because there has not been the political ability to raise rents to at least cover the full costs of maintenance. This will leave Hungary with nearly no rental market and also raise issues with respect to the capacity of many new owners to afford the renovation of older, poorly maintained units.

3 1 4 Housing Affordability

Low nominal household incomes and declining real wages in Hungary, combined with mortgage interest rates of 25 to 32 percent severely limit housing affordability for the majority of Hungarian households, even with large government subsidies. The average monthly wage in Hungary as of February, 1993, was HUF 19,000, or approximately US\$ 218 at current exchange rates. Even once all sources of income in a household are accounted for, median monthly urban household income (from a survey conducted as part of a USAID technical assistance project) was only about HUF 23,000 in 1992, or approximately US\$ 291. Unfortunately, for a number of reasons, house prices are relatively high, for example, residential space in Budapest costs about US\$ 50 to 60 per square foot or more. Even a 600 square foot flat in Budapest at 2.6 million forints costs about six to seven times the annual household income, this ratio is lower, but still very high, outside of Budapest. See Annex C for more details.

To help deal with this situation, the Hungarian government has long provided a special one-time grant to families making their first purchase. This grant, set at HUF 400,000 in 1989 for a family with two children, has declined in real value by nearly 50 percent since then. In addition, the government has heavily subsidized the cost of a limited amount of mortgage borrowing. Until 1989, the borrowing rate was simply fixed at 3 percent. Since 1989, the contract rate on the loan has followed the market rates of interest (as high as 32 percent in 1992), but the repayments have been heavily subsidized (up to 80 percent) in the early years of the loan. Despite this and a generous underwriting allowance of a maximum 33 percent (subsidized repayment) for the payment-to-income ratio, most home purchasers must come up with personal resources for half or more of the cost of the house.

3 1 5 Housing Finance Institutions

OTP dominates the housing finance market in Hungary. OTP originates over 90 percent of all housing loans in the country. The only other housing lenders are the 257 savings cooperatives, which have very limited housing finance activity concentrated primarily in the markets outside Budapest. There are few prospects for entry into the housing finance market either among the commercial banks created from the Hungarian National Bank ("MNB") in 1987, the international joint venture banks or the Hungarian banks which have been established since the liberalization of the banking laws. Other private financial institutions traditionally involved in housing finance, like insurance companies and pension funds, are still in their infancy and are unlikely to play any role in the housing finance market for some time to come. The reality of the Hungarian housing finance market today and for the next few years is that the OTP is the Hungarian housing finance market and that efforts to liberalize and rationalize this sector must focus initially on OTP. (See Annex I on the housing finance activities of OTP.)

3 1 6 Housing Finance Policy

In the housing finance sector, perhaps more than other sectors of the financial market, the GOH has had to balance the need for market reform with social concerns, particularly within the context of the recent economic slowdown, an increasing budget deficit, rising unemployment, declining real wages and high inflation and interest rates. The GOH has taken steps to move housing finance to a more rational system based on market forces. Interest rates on new housing loans have been allowed to move to market levels and the subsidies on earlier loans were cut. As a result of these efforts (as well as because of the sharp decline in new construction), the burden of housing subsidies for mortgage borrowing in the state budget has declined from over 50 percent of total GOH expenditures in 1991 to a projected 41 percent in 1993, of which 70 percent are to cover the costs of the pre-1989 mortgage loans.

While the GOH is seeking to improve the general economic situation, it is also addressing the longer-term problems of the housing finance system. A committee with representation of all of the ministries involved in housing and housing finance and the MNB has been organized to formulate a set of housing policy initiatives. As of late April, the committee was close to agreement on a series of policy initiatives which include the following particularly related to housing finance:

Policies Under Consideration by the GOH

■ **Subsidies**

Because of current social conditions in Hungary, the committee has determined that mortgage subsidies cannot be eliminated at this time, but that they should be ended within a few years and meanwhile should be more targeted towards encouraging housing construction. Moreover, in order to achieve a greater impact from the subsidy expenditures, the effect of inflation on current mortgage repayments would be primarily moderated through the partial deferment of the inflation-related portion of the repayment, instead of through the current large subsidies. Affordability would still be enhanced by a step-down interest rate subsidy, despite this, the new system is expected to reduce state budget requirements on each new mortgage by 50 percent over the next five years, and incremental subsidies in aggregate by more because the eligibility of most existing houses for loan subsidies would be ended (See Annex D)

■ **Taxation**

(1) Tax reforms enacted in 1992 partially eliminated the previous exemption for housing construction from the 25 percent value added tax (VAT). These additional taxes will increase housing costs, but all revenue generated by the VAT on construction should be used for housing related purposes, in particular to increase the social policy housing allowance, i.e. the one-time lump sum grant or advance given to people to buy new homes or build their own homes and which is related to the number of children.

(2) The committee asked that proposals be prepared to grant a credit or exemption from personal income taxes to home buyers to support the purchase or construction of housing.

■ **Reduction of Mortgage Credit Risk**

(1) The committee asked that the current foreclosure procedures be revised so that mortgage lenders can take possession of the property and convey it to a purchaser free and clear of the claim of the defaulted borrower for alternative housing. The objective of this policy initiative

is to shift all or part of the risk arising from weaknesses in the foreclosure law from the mortgage lender to the GOH until more appropriate laws are enacted

(2) Establish a credit enhancement facility to provide some protection to mortgage lending institutions. The mortgage guarantee program as currently conceived by the committee would allocate 80 percent of any loss on the sale of mortgaged property to the GOH, with the lender retaining 20 percent.

(3) Authorize the establishment of a central credit information bureau which, within constitutional limits, can provide credit information on prospective borrowers to banks.

■ **Housing Finance Institutional Development**

(1) Encourage the participation of other financial institutions in the housing finance market by removing the current legal and structural disincentives.

(2) Investigate the possibility of establishing specialized mortgage lending institutions financed by mortgage bond issuances.

If pursued vigorously, these proposed reforms would provide the basis for major improvements in the housing finance sector. *To a great extent, thus HG program is designed to support and encourage the GOH in carrying through toward these objectives.*

A number of donor efforts have been initiated previously to assist the GOH in its reform of the housing finance system. USAID's technical assistance program for the housing or housing finance sector has focused on the following objectives:

- Developing a practical mortgage program capable of preserving affordability in a high inflation environment without subsidy.
- Identifying other constraints on the efficient operation of housing finance and the potential for the expansion of competition in the sector.
- Assisting local government in carrying out their responsibilities relating to the housing stock under their control and management, including

privatization of ownership or management and installation of housing allowance programs

Other U S government assistance has focused on financial sector reform, including privatization of the banking sector

3.2 Sectoral Constraints

Despite GOH initiatives to liberalize the housing finance market, significant impediments to the development of a market based housing finance sector in Hungary remain. Major constraints on the development of a viable housing finance system include continuing high inflation coupled with unemployment and declining real wages, problems which can only be resolved by the transformation of the Hungarian economy. However, there are sectoral constraints which can be addressed by the Hungary HG-001. These sectoral constraints include

- 1 *Dependency on government subsidies to make housing finance affordable* Despite the reforms of 1989, the current system of housing finance subsidy is unnecessarily costly (see Annex D). The proposed near-term restructuring of housing finance subsidies would substantially improve the situation by cutting per unit subsidies by up to half in present value and eliminating eligibility for existing units. However, the system would still retain a significant down payment grant to first-time buyers and an interest rate "buy-down" (only on new construction) phased out over 15 years, as well as a downpayment grant to first-time buyers. Housing finance subsidies must be reduced further, targeted to those households most in need and simplified.
- 2 *The unenforceability of the mortgage against the property being financed* The inability of the lender to enforce a residential mortgage through foreclosure and sale presents a risk no totally private lender will be willing to accept, at least in the current social, economic, and political circumstances in Hungary. For example, over 35 percent of the OTP mortgage portfolio is delinquent over one year, yet there is little that OTP can do to collect on these loans. The problem of mortgage enforceability is compounded by the provisions of the Civil Code relating to the priority of claims against debtors under which the mortgage lender is not given a first right to the proceeds realized from the sale of the property.

- 3 *The lack of mortgage loan underwriting and servicing procedures appropriate to a market economic system.* In addition to the problem of unenforceability of mortgages through effective foreclosure and eviction procedures, credit risk includes risks associated with accurate underwriting of the borrower and the home and effective servicing and management of the loan. Current underwriting and servicing procedures along with the current status of industries supporting housing finance such as appraisal and credit information need to be improved upon to address market risks. Declining real wages and increasing unemployment plus changes in the way OTP can respond to delinquent borrowers make housing lending even riskier. To manage this changing environment, stronger underwriting and servicing procedures are needed so that lenders can better originate and manage loans to minimize risk in a market system.
- 4 *Lack of intermediate and long term funding sources for housing finance.* OTP funds its housing lending activities with short term deposits. This is an inappropriate source of capital to fund long term investment since "borrowing short and lending long" exposes the lender to undue liquidity risk, as well as interest rate risk if this is not carefully managed.
- 5 *The lack of appropriate financial incentives to make housing finance attractive to the emerging financial sector.* Housing finance, and retail banking in general, is not perceived as profitable lines of banking business by most Hungarian banks. There are no financial incentives in the current system to encourage banks to enter the housing finance market and, in fact, there are the significant disincentives noted above.

3.3 Addressing the Constraints

The phased provision of HG-001 resources, including technical assistance, is designed to encourage and facilitate the step-by-step transformation of the housing finance system towards greater efficiency and effectiveness, lower subsidy, and greater competition. Specifically, the Program would

- 1 Encourage the reduction and reallocation of credit risk (see Annex G) so as to facilitate the entry by competing originators and servicers,

- 2 Encourage the adoption of mortgage designs that permit the reduction and eventual elimination of mortgage repayment subsidies (see Annexes E and F),
- 3 Encourage the creation of a secondary funding mechanism, that would permit the substitution of institutional funding for deposit based funding (see Annex H)

It is important to recognize that the constraints on the system are not subject to quick fixes or immediate reform. For example, long-term funding sources cannot be tapped until credit risk is reduced and better managed and managing the credit risk requires knowing more about the operation of the new mortgage design. The HG-001 program is designed so that each phase builds on the specific activities in the preceding phases.

4 PROGRAM DESCRIPTION

4.1 Program Components

The HG-001 will consist of technical assistance and capital assistance designed to improve the housing finance system in Hungary. The program is structured around three principal components.

4 1 1 Policy Component

The purpose of HG-001 is to support the adoption of policy and legal reforms that address the impediments to a more competitive and efficient housing finance system. The policy component will focus on achieving agreed upon housing finance policy objectives, including the reduction and targeting of mortgage subsidies over time, the implementation of reforms to lessen the credit risks of mortgage lending, the creation of a mortgage insurance system and the initiation of other programs to facilitate the entry of additional lenders into the Hungarian mortgage market. Specific actions towards achieving these objectives will be required in the process of approving disbursements.

4 1 2 Program Component

The program component will focus on funding loans for the construction, purchase and substantial improvement and modernization of houses and for the

provision of infrastructure related to housing development. The houses involved in each case would have to meet certain requirements and limitations.

4 1 3 Technical Assistance Component

AID will provide additional resources in the form of grant assistance for advisory services to support the program. Such advisory services include, but are not limited to: (1) assistance to participating institutions in adopting new mortgage lending instruments, (2) help for participating institutions in strengthening their underwriting and servicing capabilities, (3) assistance to the GOH to develop a systematic plan to reduce and target housing finance subsidies, (4) consultation with the GOH on actions needed to resolve problems in the perfection and realization of security interests in real property, (5) advice on the design and implementation of a mortgage insurance and other credit enhancement programs, and (6) investigation and development of options for facilitating access to long-term capital resources. A detailed outline of the technical assistance program is attached as Annex B.

4 2 Eligible Expenditures

Eligible Expenditures of HG loan resources would include the following:

- (a) On-lending to participating institutions to fund "self-help" mortgages to Hungarian households for building or completing houses or flats.
- (b) On-lending to participating institutions to fund mortgages to Hungarian households for the purchase of newly built or existing houses or flats.
- (c) On-lending to participating institutions to fund loans for the substantial improvement, repair or modernization of existing houses or flats.
- (d) On-lending to participating institutions to fund loans to local governments for the provision of infrastructure related to housing and loans to households for utility connections. (See Annex J on the financing of infrastructure.)
- (e) On-lending to participating institutions to fund loans to provide serviced land which will be sold only for the construction of multi-family housing projects or single-family houses eligible for lending under the Program Guidelines.

- (f) On-lending to participating institutions to fund loans to private companies, partnerships, and joint ventures, including public/private joint ventures, for the construction of and permanent financing for small scale housing projects in which the houses or flats to be sold meet the Program Guidelines
- (g) Fees and charges approved by AID in connection with the HG-001 loan agreement, including paying and transfer agency fees and charges and such other reasonable costs of goods and services for the program as may be mutually agreed upon
- (h) Other uses which AID may approve which will promote the policy objectives of the project

4 3 Program Lending Guidelines

The terms and conditions under which HG resources may be utilized to achieve the policy objectives of the project will be subject to agreement between AID and the MOF. The terms and conditions under which HG financial resources will be onlent to participating institutions for Eligible Expenditures include

- (a) The participating institutions should utilize the deferred payment mortgage (DPM) financing structure or an acceptable alternative for long term mortgages to increase the affordability of housing to the greatest extent possible
- (b) In order to qualify as an Eligible Expenditure, except as AID may otherwise agree, all loans for the construction or purchase of houses shall finance units with an interior floor area of not more than 120 square meters for family houses and 90 square meters for apartments (flats)
- (c) No loan may be made for the substantial improvement, repair or modernization of a multifamily structure unless at least 80 percent of the housing units in the housing project or multifamily structure meet the maximum interior square footage limitation established in sub-section 4 3 (b)
- (d) HG financial resources onlent to participating institutions will bear an interest rate linked to an appropriate market interest rate

- (e) Loans made with HG resources to private developers for housing construction or substantial improvement, repair or modernization of existing housing must convert to an equivalent amount of long term mortgages
- (f) Due to the economic conditions in Hungary at the present time, it will be difficult to reach very far down the income scale in the early stages of the project. However, HG resources will be targeted to finance moderately priced housing
- (g) Participating institutions will employ sound credit underwriting and servicing policies and procedures for housing loans funded with HG resources. In general, the amount of a loan together with all other debt on a home should not exceed 70 percent of the value of the home and the ratio of the borrower's monthly payment to the borrower's monthly income should not exceed 33 percent

4 4 Phasing of the Program

This program will be structured to systematically remove the major constraints on the efficient and competitive operation of the housing finance sector. Thus, the HG-001 funding will be disbursed in several tranches, each of which will be based on specific policy actions. In all tranches HG-001 resources will be provided to fund the Eligible Expenditures listed in section 4 2 above

4 4 1 Conditions Precedent for Disbursement of Guaranteed Loan Funds for the First Tranche of the Program

Prior to AID's guaranty of the first disbursement, the GOH, acting through the MOF, will be expected to meet certain conditions precedent. These conditions precedent include, but are not limited to, the following

- (a) On-lending terms and arrangements between the MOF and participating institutions acceptable to AID
- (b) Evidence that the MOF has provided adequate staff to properly manage the program
- (c) Formally adopted selection criteria and program requirements for eligible projects to be financed under the program

- (d) The financial structure and flow of funds to be used between the MNB and participating institutions
- (e) Adoption of a housing policy statement acceptable to AID,
- (f) Approval of a housing loan subsidy structure that reduces the per unit amount of the subsidies, targets the remaining subsidies and that encourages the use of a deferred-payment mortgage design,
- (g) Establishment of a Housing Finance Task Force (HFTF) to recommend modifications in statutes, regulations and legal procedures to perfect security interests in real property and expedite recoveries in cases of delinquency or default and to identify other barriers to entry into housing finance by additional financial institutions,
- (h) Preparation of a detailed program of technical assistance necessary to implement the program

See Annex A for specific bench marks for assessing whether these conditions have been met

4 4 2 Conditions Precedent for Disbursement of Guaranteed Loan Funds for the Subsequent Tranches of the Program

The conditions precedent to disbursement of funds for subsequent tranches of the program will be determined based on the overall progress of the program, quantitative outputs for the preceding tranches and a review of findings from studies and evaluations of the program. It is anticipated that prior to AID's authorization of disbursements for the second tranche of the program, the GOH will have accomplished or made substantial progress toward achievement of the following

- (a) Preparation of legislative and regulatory reforms to improve the procedures for the perfection and realization of security interests in real property, to reduce the risk to mortgage lenders of the unenforceability of the mortgage and to implement other mutually agreed upon recommendations for reform,
- (b) Adoption of a plan to systematically reduce GOH mortgage subsidies, to make more efficient use of the budget resources used to support housing finance, to simplify and streamline the current complex and

administratively burdensome subsidy system and to target remaining subsidies to low and moderate income households,

- (c) Establishment of a mortgage insurance program to provide reasonable protection against losses incurred by lenders on eligible loans
- (d) Initiation of a study of options to increase the use of long and intermediate term financial instruments for fund housing

The conditions precedent for disbursement of HG resources for any further tranches of the program may include the adoption of proposals to encourage the investment of long and intermediate term financial resources in the housing sector and to otherwise encourage competition in the housing finance sector

5 EXPECTED PROGRAM ACCOMPLISHMENTS

The HG-001 is expected to result in the following accomplishments

- (a) Adoption by the GOH of the proposed housing policy agreement
- (b) Implementation of the DPM or other mortgage instruments designed to maintain housing affordability in an unstable economic environment
- (c) Introduction of legislative amendments to improve the procedures for perfection of and realization on security interests in real property and otherwise reduce the risk to mortgage lenders of the unenforceability of the mortgage
- (d) Implementation of sound credit underwriting and servicing, risk management, accounting and internal control policies and procedures for mortgage lending
- (e) Establishment of appropriate credit enhancement structures and systems to protect mortgage lenders from unacceptable risk. This plan should involve risk sharing among the borrower, the lender and the credit enhancement facility
- (f) Adoption of a plan to systematically reduce GOH mortgage subsidies, to make more efficient use of budget resources used to support housing

finance, to simplify and streamline the current complex and administratively burdensome subsidy system and to target remaining subsidies to low and moderate income households

- (g) Implementation of a technical assistance program that effectively facilitates the achievement of mutually agreed upon policy and program objectives

6 EXPECTED PROGRAM OUTPUTS

The program is expected to finance the following levels of tangible outputs over the life of the program, which may be modified by mutual agreement between AID and the MOF

- (a) At least 50 percent of the HUF equivalent of total guaranteed loan funds disbursed shall be used to fund long term mortgage loans financed by participating institutions. These loans may include mortgage loans for the purchase of newly constructed housing units in projects financed under the program
- (b) Loans to participating institutions to finance the substantial improvement, repair or modernization of existing houses or flats in an amount not to exceed 25 percent of the HUF equivalent of total guaranteed loan funds disbursed
- (c) Loans to PIs to finance loans to local governments for the provision of infrastructure related to housing in an amount not to exceed 20 percent of the HUF equivalent of total guaranteed loan funds disbursed
- (d) At least one participating institution in addition to the OTP

7 INSTITUTIONAL ARRANGEMENTS FOR PROGRAM MANAGEMENT

7.1 The Ministry of Finance (MOF)

The Ministry of Finance will be the borrower under the Hungary HG-001 and will have the leadership role in developing the legislative, regulatory to policy reforms required under the HG program. The MOF also will have the responsibility for

program implementation and accountability for HG resources and will assign sufficient staff within the MOF to perform such duties and tasks as may be required to manage the program. The MOF will ensure that adequate technical assistance is provided to participating institutions to organizations or entities which will be implementing the project.

7.2 The National Bank of Hungary (MNB)

The MNB will serve as the agent of the MOF in onlending HG financial resources to participating institutions and will perform the administrative and reporting functions on behalf of the MOF. The specific functions and responsibilities of the MNB and the relationship between the MNB, the MOF, the OTP and AID will be subject to agreement between AID, the GOH and MNB.

7.3 Participating Institutions (PI)

Participating institutions include the National Savings Bank (OTP), commercial banks, banks with foreign participation, specialized financial institutions, savings and credit cooperatives, and other institutions which meet the criteria for participation in the program and are approved by the MOF and the MNB. In order to be eligible to participate in the program, an institution must be approved by the MOF and the MNB and must demonstrate the financial and managerial capacity to on-lend under the HG financing criteria or fulfill the requirements for other HG financed activities. At a minimum, institutions approved as PIs must meet the following criteria:

- 1 Be a financial institution licensed to pursue financial institutional activities or bank representation activities within the territory of the Republic of Hungary,
- 2 Submission of an independent certified audit performed under Internationally Accepted Auditing Standards and meeting International Accounting Standards for the most recent fiscal year,
- 3 Be in compliance with all applicable laws and regulations relating to the class of financial institution,
- 4 Demonstrate the ability to meet the financial, managerial, and operational requirements of the program, and

- 5 Demonstrate sound fiscal performance and management, including maintenance of records on current and delinquent accounts and evidence of efforts to collect on seriously delinquent accounts

8 FINANCING STRUCTURE

8.1 Financing Structure

The financing structure will provide for placement of funds with the MNB and distribution of the funds by the MNB to participating banks. The terms between the MOF and the MNB and between the MNB and PIs are not yet agreed upon. The details of the final financing structure and flow of funds will be subject to agreement between AID and the GOH. (See Annex K for an extended discussion of options.)

8.2 Allocation of Resources

A time-phased allocation of resources will be developed during the final negotiations of the program.

8.3 Options for Onlending

- 1 The loans to participating institutions may be either senior or subordinated credits. Subordinated credits shall meet all statutory and regulatory criteria for inclusion as "additional items of capital" as that term is defined in the Banking Act. If the onlending to participating institutions is subordinated, a subordination agreement shall be executed between the participating institution and the MOF.
- 2 For participating institutions where the primary Eligible Expenditure is deferred payment mortgages, the repayment terms of the onlending shall match those of the underlying DPM portfolio.
- 3 The onlending interest rate should be linked to a suitable market interest rate.

ANNEX A

EVIDENCE OF SATISFACTION OF CONDITIONS PRECEDENT TO THE FIRST DISBURSEMENT

Evidence of satisfaction of the conditions precedent set forth in Section 4 4 1 will include the following

(a) Evidence of acceptance by the GOH of a housing policy statement consistent with the objectives of the program will be (1) a written housing policy statement approved by the Intergovernmental Committee, (2) presentation of the policy to the GOH, (3) acceptance of the policy by the GOH, and (4) publication of the statement in the Hungarian Gazette

(b) Evidence of the acceptance by the GOH of a housing loan subsidy structure which reduces the amount of interest rate subsidies, improves targeting of subsidies and encourages the use of a deferred-payment or other appropriate mortgage design will be (1) a written plan prepared by the MOF to reduce and target interest rate subsidies and implement appropriate mortgage instruments, (2) submission of the plan to the Intergovernmental Committee, (3) approval of the plan by the Intergovernmental Committee, (4) presentation of the policy to the GOH, (5) acceptance of the policy by the GOH, and (6) publication of the plan in the Hungarian Gazette

(c) Evidence of establishment of a Housing Finance Working Committee to recommend modifications in statutes, regulations and legal procedures to perfect security interests in real property and expedite recoveries in cases of delinquency or default and to identify other barriers to entry into housing finance by additional financial institutions will be (1) a written statement authorizing the formation and setting out the goals and objectives of the committee, (2) a written work-plan for accomplishment of the committee's objectives

(d) Evidence of the final determination of the financing structure and flow of funds to be used between the MOF and participating institutions will be (1) a written statement by the MOF setting forth the terms and conditions for onlending to participating institutions, (2) submission of the written terms and conditions to the MNB and the State Banking Supervision (SBS) for review and approval, and (3) approval of the terms and conditions by the MNB and the SBS

(e) Evidence of preparation of a Program Implementation Plan as described in Section 3 1 will be (1) written work-plans, budgets, projections of resource needs and estimates of Eligible Expenditures, (2) written policies and procedures for management of the program, including project selection and other program criteria, and (3) a written technical assistance plan setting out

the types of advisory services needed to implement the program and a schedule for provision of such advisory services

ANNEX B

TECHNICAL ASSISTANCE PROGRAM

Technical assistance is required to assist the Government of Hungary to meet the Housing Guaranty's objectives of creating a market based system that is competitive and reduces reliance on subsidies. The proposed technical assistance is intended to be staged over the term of the Housing Guaranty Program. The areas of assistance proposed below are organized around the key program and policy components of the Housing Guaranty.

The highest priorities for technical assistance are the establishment of a credit enhancement institution, implementation of a market mortgage instrument, and assistance in a more effective subsidy program. The technical assistance proposed under each of the categories is in order of priority. Whenever appropriate, training is assumed to be part of program implementation.

Credit Enhancement

- Design and implementation of housing finance lending (mortgage and construction) practices that effectively manages credit risk and covers
 - loan origination and underwriting process
 - loan servicing, control, default management, and accounting processes
 - quality control and audit process
 - management information systems and automated program control
 - credit risk pricing

Counterpart/Recipient

OTP, Participating Institutions, and Mortgage Insurer for mortgages and construction of self-help units

OTP and Participating Institutions for construction involving public and private developers

- Design and implementation of a mortgage insurance program utilizing the products of the first bullet that includes

- risk sharing strategies
- public/private partnerships

Counterpart/Recipient Mortgage Insurer, Ministry of Finance

- Legal analysis in foreclosure and eviction process and registration process

Counterpart/Recipient Ministries of Finance, Justice, Social Welfare, and Interior, OTP and Participating Institutions

- Training and improved methodology in the market appraisal process

Counterpart/Recipient Federation of Real Estate Brokers, Ministry of Interior

- Legal and regulatory analysis in improvements to title registration

Counterpart/Recipient Ministries of Finance, Justice and Interior

- Condominium maintenance and improvement strategies

Counterpart/Recipient Condominium Associations and Management Companies

- Assistance in establishment of credit rating services

Counterpart/Recipient Ministries of Finance and Justice, OTP and Participating Institutions

Liquidity

- Options analysis and program development based on analyses of capital markets, accounting practices and capital rules requirements

Counterpart/Recipient. Ministry of Finance

- Legal and regulatory analysis and design

Counterpart/Recipient Ministries of Finance and Justice

Subsidy Policy Assistance

- Options analysis and system review
- Analysis of impacts on housing production and assumption

Counterpart/Recipient Ministries of Finance, Social Welfare, and Industry and Trade

Mortgage Product Implementation

- Systems implementation
- Borrower and lender education

Counterpart/Recipient OTP and Participating Institutions

Infrastructure Lending

- Program design and implementation analysis and review

Counterpart/Recipient OTP, Participating Institutions, Municipalities and Ministry of Finance

ANNEX C

HOUSING AFFORDABILITY

INTRODUCTION

As in other Eastern European countries before 1989, housing was a social good that was given at a low price but in limited quantities according to various qualifications, some explicit and others unstated. This created the feeling that there was an artificial shortage of housing, because of the severe restrictions on mobility and on incremental purchases. With the advent of the market economy, these restrictions should have been eliminated. That is gradually happening with respect to mobility. But at the same time, it has come more clearly into focus that the full market costs of housing are very high relative to incomes in Hungary. The result of this, and given a further decline in real incomes since 1990, has been a sharp decline in new residential construction, and a downward adjustment of the real prices of houses.

WAGES AND HOUSEHOLD INCOMES

Incomes are relatively low in Hungary by the standards of Western Europe, but relatively high compared with the rest of Eastern and Central Europe. According to the Central Statistical Office, in December 1992, average gross wages for factory workers ranged from HUF 20,000 to HUF 30,000 per month, depending on sector, or US\$ 3,000 to US\$ 4,500 per year at the average exchange rate of 79 HUF/ US\$ for 1992. Average gross wages for office workers ranged from HUF 35,000 to HUF 60,000, depending on sector, or US\$ 5,300 to US\$ 9,100 per year. Net take-home wages, though, are what are commonly referred to and they are only about three-quarters of gross wages.

Since most households, other than pensioners, have more than one wage earner, typical gross household incomes should range from HUF 40,000 to HUF 50,000 and higher for households with two white-collar workers. The corresponding range of net incomes as of December 1992 would be between HUF 30,000 and HUF 37,500 per month. This generalization is consistent with data from a major survey of urban Hungarian households completed in the middle of 1992¹. In the survey, the top sixty percent, which presumably excludes most households with an unemployed or retired member, single person households, and those with more marginal employment, reported a median net income of HUF 33,000 (or US\$ 5,000 per year). The top twenty percent of households, presumably in white-collar positions, reported a median net household income of HUF 52,700 per month (or US\$ 8,000 per year). Both of these figures would be 10 percent or more higher by the end

¹ Data gathered for the World Bank/Habitat Housing Indicator Program with AID funding

of 1992. Of course all of these self-reported figures probably are underestimates of actual incomes, especially in these societies with high taxes and strong reasons traditionally to be secretive.

This top income quintile forms the core of the move-up market in housing in many countries. However, in Hungary, most people traditionally have purchased or built only one house in a lifetime. Thus, the larger part of the market has been first-time owners. Moreover, since private rental housing is still a very limited sector and entrance to existing government rental housing is very difficult, households usually attempt to make the transition to ownership at an early age. For all of these reasons, the largest part of the housing market has consisted of households with relatively modest incomes. This is reflected in the incomes reported for households purchasing houses in 1991 with the assistance of an OTP loan. For those buying an existing house, the average net income was only HUF 21,000 per month or US \$3,400 per year.² However, economic hard times for many households, especially younger ones facing a high risk of unemployment, together with prosperity for a minority of higher-income households, seems to be creating a relatively larger trade-up market. By 1992, a similar small sample of OTP files found an average net monthly income of HUF 40,000.

The median net income of all urban households was estimated to be about HUF 23,000 per month (about US\$ 3,500 per year) in the middle of 1992. This amount is quite low, partially because it includes the large number of households with one or more pensioners (30 percent in 1992). Pension levels have lagged well behind inflation, running only HUF 7 to 10,000 per month in most cases in 1992.

Thus, the large majority of households with two workers employed will have a net income that exceeds this overall median. However, as noted above, a significant part of the housing market consists of young households with relatively low wages. Based on the available evidence, this has meant that a significant number of recent borrowers from OTP have had incomes at or below the overall median.

CONSTRUCTION COSTS AND HOUSE PRICES

Housing construction in Hungary is expensive relative to incomes. The large construction companies report that the construction costs alone for a typical new flat in Budapest were about HUF 25,000 per square meter in 1991, and HUF 20,000 outside of Budapest. Land, interest, marketing and management fees would add to this significantly. Average resale prices have been estimated at HUF 39,500 per square meter in 1991 in Budapest and HUF 42,600 per square meter in 1992, but

² Based on a small (61) partially non-random sample of OTP loans originated in 1991

only HUF 28,200 outside of Budapest³ Thus a typical 70 square meter flat sold for almost HUF 30 million (US \$ 37,500) in Budapest in 1992 and about HUF 20 million (US\$ 25,000) elsewhere

In reality, most new houses are not flats, particularly since the subsidies to state construction companies have been reduced In 1992, eighty-one percent of new housing units constructed were one-family homes, including townhouses The average size of all new homes was 93 square meters Moreover, most new construction is in the more remote parts of the cities, with lower locational premiums than the average resale home Thus the total cost could be lower than for resale homes The total price in Budapest presumably would be about HUF 35 to 40 million, but only HUF 24 million elsewhere

HOUSE PRICES RELATIVE TO INCOME

The above data can be utilized in several ways to portray affordability of housing in Hungary Whatever approach is used, however, the implication is the same house prices are unusually high compared with incomes

As noted above, a modest 70 square meter flat costs about HUF 30 million in 1992 in Budapest For a young family trying to move out of an in-laws' flat and with a household net income of HUF 30,000 per month, the price-to-annual income ratio is 83 For a move-up buyer with a family net income of approximately HUF 50,000 and buying a 100 square meter townhouse, the ratio would still be 71 The house prices would be lower outside of Budapest, but incomes would also be lower Moreover, unemployment is close to 15 percent outside of Budapest, but only 5 percent in Budapest

The results are confirmed in the data gathered on 2600 households for the Housing Indicators Program In that sample, the ratio of self-reported house value to self-reported income was 64 on average This is in contrast to a typical ratio in the U S of 25 to 30 and 40 in Germany

THE ROLE OF MORTGAGE FINANCE

How do households afford a house costing seven or eight times their annual income? Even in a housing finance system such as in the U S , a household cannot borrow an amount more than 20 to 25 times their income towards a home purchase In Hungary, the deep repayment subsidies, combined with a generous

³ Based on reports in real estate periodicals

ceiling of 33 percent payment-to-income underwriting guideline, can, in cases of low incomes, boost the loan-to-income ratios to higher than 2.5. However, the deep subsidy on repayments extends to only the first HUF 400,000 in loan in most cases, leaving the borrower with only a 30 percent subsidy on further borrowing. With the interest rate at 28 percent, the payment burden of additional borrowing quickly exhausts the remaining underwriting potential.

The result is reflected in the very low loan-to-value ratios that OTP reports. For all loans for construction of new houses made between 1989 and 1992, the ratio of total loans to the estimated value averaged only 27 percent. A typical loan package in 1992 was about HUF 600,000 for new construction and less for resales.

In addition to these subsidized loans, first-time homebuyers are eligible for the one-time social policy allowance discussed in Annex D. For most families, this means another HUF 200,000. Further grants and subsidized loans are available from employers and local governments, but they do not usually add up to more than 10 percent of the house price.

The net result is that about one-half or more of the total cost has to come from the purchaser's own resources. These resources take one of two forms. If the household has already been an owner, they had significant equity built-up in their previous house. If they are a first-time buyer, they cannot have saved the equivalent of 3 to 4 times their annual income by the time they are trying to buy a home. Since there are very limited rental options, this age of first purchase is usually before the mid-30's, when child-raising is in full process. To do so, first-time buyers apparently rely instead on a major contribution from parents or other family members, including grandparents who may be selling their own unit.

There are several implications of this analysis, including that 1) housing affordability is very low in Hungary, 2) households cope largely by relying on their own or relatives' resources, and 3) most borrowers have very low loan-to-value ratios (and thus would be low risk if foreclosure was effective). Moreover, the social pressure for government assistance with the home purchase is very great.

MAINTAINING AFFORDABILITY WITH THE DPM

As long as Hungary continues to experience interest rates over 20 percent, the borrowing capacity of home buyers will be negligible without significant subsidies or a change in the repayment pattern for housing loans.

As noted above, most home purchasers utilize their own resources for half or more of the cost of the house. However, they do rely on a combination of subsidized loans and lump-sum subsidies to bridge the remaining gap of 30 to 40 percent of the

house price As discussed in Annex D, a significant part of the subsidies are in the form of a lump-sum grant, with additional mortgage repayment subsidies that have a present value about the same as the lump-sum grant

Under HG-001 as proposed, the GOH would reduce the repayment subsidies sharply in the first phase and then eliminate them in future phases The key to doing so in the high-inflation, high interest rate environment is the introduction by OTP of a deferred payment mortgage (DPM) arrangement, as described in Annex E At current levels of interest rates and inflation, a shift to a DPM can slightly enhance the present modest levels of affordability without any repayment or interest rate subsidy However, the GOH is contemplating retaining some interest rate subsidy (see Annex D) in order to significantly improve affordability in conjunction with the DPM

AFFORDABLE HOUSE SIZES

As noted above, the average size of a new housing unit completed in 1992 was 93 square meters, up from 85 square meters in 1988 The rise in size is primarily due to the decline from 36 percent of the units being flats in 1988 to only 19 percent in 1992 This trend will continue in the future, because the construction market is shifting towards more trade-up purchases and the data are for completions of houses, many of which were started a year or more before

Among the homes completed in 1991 (for which detailed data is available), the average size of a new detached single-family house was 116 square meters, while row houses averaged 91 square meters and flats averaged 65 square meters The last figure probably reflects the continuing momentum of the state-owned construction companies starting small, pre-fabricated flats in 1989-90, of the type they have traditionally produced The size of new flats may increase as the market shifts toward construction for trade-up buyers However, at the moment, the production of new flats is practically at a standstill, because of lack of financing for multi-family construction

These data imply that the ceiling sizes proposed for eligibility for funding under the HG-001 are somewhat above the average sizes in recent years, but are below the sizes in the upper portions of the market The limit of 120 square meters for single family homes is nearly the same as the average size of a detached single-family home completed in 1991, but one-third larger than the average row house (also considered to be a single-family home) Similarly, the ceiling for flats of 90 square meters is 38 percent higher than for the average flat

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ANNEX D

CURRENT AND PROPOSED HOUSING SUBSIDY PROGRAMS

INTRODUCTION

Since World War II, housing has been broadly and deeply subsidized in Hungary, through grants, below-market interest rates, below-market rents, and below-market selling prices. The result has been a housing market that is profoundly distorted by non-price production and allocation decisions. Moreover, public policy continues to be oriented towards deep subsidies for most housing sectors. Since the changes of 1989, though, pressures for moving towards a market-oriented housing sector have been growing. The private sector of the economy has been given a legal and financial structure in which to grow and the state sector has been steadily privatized. The central government has given up its all-encompassing revenue base and relied on an explicit tax system to raise revenues. In the process, it has had to cut back severely on its expenditures, including those for housing.

Production of new public rental housing has ended and more and more of the existing public rental stock is being privatized. There have been rent increases, although they have lagged the general inflation rate. A limited housing allowance-type subsidy has been introduced. The enormous subsidies associated with low, fixed-rate housing finance in an inflationary environment were limited for new borrowers and trimmed *ex-post* for earlier borrowers.

Unfortunately, the process of shifting towards unsubsidized, market-oriented housing finance has been slowed by the presence and prospect of high and uncertain inflation. The resulting high nominal interest rates have been ameliorated through a large government buy-down of the monthly payment on ordinary variable rate mortgages. Although this subsidy mechanism can bring the initial payment down to affordable levels, it still leaves the borrower subject to uncertainty with respect to future payments and the government subject to a heavy and uncertain subsidy.

CURRENT SUBSIDIES

General Outline

The current system of subsidies on mortgage loans began in 1989. Prior to that time, home buyers were eligible for a significant but limited amount of loan at a fixed interest rate of 3 percent. Rising rates of inflation (and thus interest rates) had rapidly increased the fiscal burden of this system as well as forced an attempt to restrict the rates of interest paid on the retail deposits which backed these loans.

The replacement system was a significant step towards more market-based approach. Loans are available only at a variable rate based (roughly) on market costs of funds. These rates (ranging from 23 to 32 percent since 1989) are then subsidized according to a system of considerations that also reflect family size and whether the house is new. These subsidies are then phased out in stages over a 15 year period.

In addition to these loan subsidies, there is a one-time, up-front grant which is targeted according to the number of children in the family (a major social concern in Hungary). Moreover, it is available only if the transaction involves a new home (This grant was available starting in 1971, but had been restricted to new multifamily flats until 1983.)

Finally, there is a system of relatively small loans or grants available at a nominal interest rate from employers and local government, also usually related to first-time buyer status and family size.

Even combining these grants and subsidized loans, such outside financing generally cumulates to only about 50 percent or less of the cost of the house. In fact, since most of the subsidies do not increase beyond some relatively small amount of housing expenditure, they are typically viewed as a package of lump-sum assistance. Moreover, the various grant and loan limits have remained unchanged since 1989, while consumer prices have more than doubled. Thus the distortionary effects of these subsidies on real sector allocations of production or financial markets were relatively small in 1989 and have declined further since then.

Types of Subsidies

- 1) **Social Policy Allowance Subsidy** This one-time, up-front grant is based on the number of children. It is available to families with children, and only when purchasing *new* units. The subsidy is determined as follows:

Number of Children	Subsidy Increment (HUF)	Total Grant (HUF)
1	50,000	50,000
2	150,000	200,000
3	400,000	600,000
4	100,000	700,000

Each additional child beyond three children entitles the family to an additional HUF 100,000. These subsidies may include both children

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already born, as well as those that the family expects to have some time in the future (up to a total of two) The latter subsidy is called the Advance Social Policy Allowance It is the responsibility of the lender to monitor the compliance with this expected number of children and to require that the subsidy be repaid with interest should the family not meet its household size goal Also, extra grants of HUF 30,000 per dependent are provided to households earning less than a certain minimal income

- 2) *Repayment Subsidy* There are two types of subsidies for reducing mortgage payments those available on new houses to families with children, and general subsidies The former are called the "deep" subsidies and are restricted to an amount of no more than HUF 400,000 The deep subsidy consists of a proportionate reduction in monthly repayments as follows, with the step-down occurring every five years

FAMILIES WITH	REPAYMENT REDUCTIONS
one child	40%, 20%, 15%, 0%
two children	70%, 35%, 15%, 0%
three children	80%, 40%, 15%, 0%

The general subsidy reduces the payments on other lending beyond any available deep subsidy loans by 30 percent for the first five years, and 15 percent for the next ten years It is available on existing homes, and is not dependent on the number of children

It is important to note that the current type of subsidy to housing loans is not an interest rate subsidy It takes the form of a payment by the government to OTP for a portion of the full repayment amount including principal, with the limitation that the subsidy not exceed the full interest due The distinction is recognized by the public, many borrowers take a term of 10 years, despite the higher payment for them, because it also increases the total subsidy from the government

- 3) *Employer and Local Government Loan Subsidies* There are additional loans granted by the borrower's employer (enterprise loans) and local municipal governments, usually through the lender (OTP). These usually have the older type of repayment subsidies, with very favorable terms (fixed and low interest rates, sometimes 0%)
- 4) *Exemption from Value-added Tax* In the last few years, a value-added tax (VAT) has been applied at increasing rates and with wider coverage. As of last year the rate went to 25 percent, but housing construction remained exempt. This foregone revenue from this exemption was estimated to be HUF 14 billion in 1992, roughly the same as the repayment subsidies. As of January 1 of this year, the exemption of new construction was limited to 60 percent of the tax otherwise due, with a cap of HUF 400,000 on the amount of tax subject to rebate. This implies that maximum exemption from the VAT is reached when construction costs are HUF 2.67 million (60 percent of 25 percent of HUF 2.67 million HUF is 400,000)
- 5) *Rehabilitation Loan Subsidies* There is a separate program of repayment subsidies on loans to households for renovation and modernization. The subsidy rate is 50 percent of the payment over the term of the loan, which is 15 years, with the limit that it not exceed the interest due. Most of these loans are relatively small, but there are very many of them.
- 6) *Infrastructure Subsidies* There are also significant subsidies to infrastructure development. These are discussed in Annex J.
- 7) *Construction Interest Subsidy* An ancillary subsidy is provided to development enterprises that covers 75 percent of the interest on construction finance for the first year of development. While the interest is to reduce housing costs and assist private developers, apparently the effect currently is to support the inefficiencies of large state-owned firms, since they are the only ones with the collateral to gain access to loans to begin with.

Impact of Current Subsidies

A major concern with subsidies for housing, particularly through reduced interest rates, is that the incentives to consume housing or to borrow funds for housing are distorted significantly. However, in the case of home ownership subsidies in Hungary, the major effect is to reduce the total cost of home purchase without affecting the marginal cost of consuming a larger house. Moreover, there is no real

choice of tenure either, since the availability of rental housing is effectively determined by government production

The social policy allowance, the deep subsidy and the employer and local government subsidies are all fixed in ways that are independent of the amount of housing purchased. They primarily act as a lump sum downpayment designed to help young families enter the housing market. However, the first two subsidies are linked to the purchase or construction of a new house, which may serve macroeconomic goals, but denies the assistance to the households who most need it. Another distortive effect is that households are able to borrow much more than they would otherwise in the current environment of high interest rates. However, the total loan amount is still substantially less than it would be in an economy with no inflation and no loan subsidies. Nearly all of these subsidy limits have remained constant since 1989 and thus have been more than cut in half in real terms through the end of 1992.

Two subsidies actually may affect the relative price of purchasing additional housing. These are the general repayment subsidy, starting at 30 percent, and the exemption of construction from the VAT. The repayment subsidy can be significant, but at current rates of interest, the size of the shallow subsidy loan that a household can qualify for rarely exceeds HUF 300,000, thus having little effect on housing consumption or debt usage.

The exemption from the VAT was scheduled to end at the end of 1992, but the impact on house prices would have been too severe, so a compromise was reached that continues the exemption on 60 percent of the VAT, up to a maximum of HUF 400,000. Many houses cost more to build than the HUF 2.67 million that qualifies for the exemption and, in those cases, even this subsidy does not affect the marginal cost of housing.

In addition to the impact on the allocation of capital and on the financial system, the housing loans subsidies have three other important impacts. In 1991, the repayment subsidies on all types of housing loans (excluding the old, fixed-rate loans) were HUF 10.8 billion, or 1.3 percent of the total GOH budget. The subsidy burden was raised sharply by the rise in mortgage rates to 32 percent, but of course, it was much less than if the old fixed rate approach were still in effect.¹ While this burden on the budget of the housing loan subsidies is not highly significant, it is important and a cause for concern because it is largely wasteful. There are other ways of preserving the affordability of mortgages in the face of high inflation. And none of these subsidies are targeted by household income, but rather by the number

¹ Elsewhere in the budget was a provision of HUF 40.7 billion to cover the losses incurred on the portfolio of fixed-rate loans from the earlier period.

of children. The net effect may be to encourage having more children, but it does not directly improve the access to reasonable housing by those most in need.

Another major impact of the current array of home purchase subsidies is on the participation of banks in home lending. The current arrangement is that nearly all subsidies are administered by the lender, including the Social Policy Allowance (SPA) (the Advance SPA is treated as a loan from the lender on which the government pays the interest until the promised children arrive), the repayment subsidy, and the employer and local government loans (repayment to be administered by the lender). This subsidy administration is viewed as burdensome for OTP, but it is also recognized to serve as a deterrent for any potential competitors.

A last impact of the current subsidy structure is to encourage the construction of new housing, since the deep repayment subsidy and the social policy allowance are tied to the purchase of a new home.²

PROPOSED MODIFICATIONS

The GOH has been debating internally a number of changes to the subsidy system intended both to reduce the total cost and to maintain or increase the impact on new construction. In particular, they are approaching agreement to replace the major portion of the mortgage repayment subsidy with a shift towards reliance on a deferred-payment mortgage (DPM). Previous studies sponsored by USAID and the World Bank, as well as internal GOH studies, have shown how loan affordability and soundness can be preserved in the face of high and variable interest rates through a DPM system, without any repayment or interest subsidy at all. However, there are concerns about the social and political impacts of removing all assistance in this regard during this period of severe economic difficulties. Thus, the GOH is considering the preservation of a phased-out buy-down of the repayment rate on a DPM in those cases that currently qualify for the deep repayment subsidy, i.e., for a limited amount of loan on the purchase or construction of a new house. Additional loans on such houses and most loans on existing houses would receive no subsidy.

There has also been much discussion of raising the amounts of the social policy allowance, the value of which has been eroded by inflation. Currently, the intent is to do so out of funds raised by gradually eliminating the exemption from the 25 percent VAT for new residential construction. As noted, this exemption was reduced to 60 percent as of January 1993, but the current judgement is that little

² For a portion of the cases (13 percent in 1992) the link between the subsidy and the purchase of a new house is through a special provision that allows the sale of an existing home to qualify if it is being vacated to buy a new home and the sale is handled by the same entity as the sale of the new home.

additional revenue will be raised before 1994 or 1995. Thus, increases in the social policy allowance have been deferred until then.

POLICY GOALS OF THE HG-001 PROGRAM

The reduction and targeting of mortgage subsidies are a major policy goal of the HG-001 program. Steps in this direction are included as Conditions Precedent for the first two tranches of the program. Technical assistance in subsidy policy analysis and targeting will also be provided.

The first concrete step in this direction would be the elimination of the current system of subsidy for loan repayments. At a time that mortgage interest rates are 28 percent, the absence of subsidy will mean that households and lenders would have no alternative but to consider using a DPM structure. Similarly, the GOH cannot substantially reduce or eliminate the repayment subsidy without providing an alternative. Thus, facilitating the introduction of the DPM and the reduction in loan subsidies are closely tied together.

As noted above, the amount of mortgage loan affordable under a DPM will usually exceed that under the current system, without any subsidy (unless the payment rate is set much higher than 10 percent). Thus, the use of the DPM was proposed as a means of ending all loan subsidies. The GOH has indicated that such a step would not be acceptable under current conditions. The major option being discussed is a buy-down of the payment rate by 4 percent for the first five years, 3 percent over the next five years, and 1 percent for another five years. Such a subsidy would increase the maximum affordable loan amount by about 30 percent over that of an unsubsidized DPM. But it would perpetuate the largest problem of all previous loan subsidies, large and uncertain future liability of the government. It also contains the same danger of the current system for significant increases in payment burdens at the ends of each subsidy tranche.

Despite these drawbacks, the continuation of loan subsidies in this manner still represents a significant improvement over the current situation. The net present value per housing unit of such a subsidy is about 40-60 percent less than the current subsidy (depending on size of loan) and the difference is even greater in the near term, when the budget deficit is likely to remain at crisis levels. Moreover, the proposal being discussed would end repayment subsidies entirely for existing houses, so that the immediate impact on the deficit over the current system would be even greater. Finally, the payment shocks associated with the step-downs in this proposal are less than in the current system. The proposal would be improved in all of these dimensions though, if the buy-downs were reduced, to say 3-2-1 or 2-1, or if the

subsidy were used to reduce the deferred interest rather than the borrower's payment³

Since the use of the DPM is the key step for the further reduction in loan subsidies, it is considered to be acceptable to retain some interest rate subsidy component temporarily to ease the transition. Thus adoption of such buy-downs would be permitted under the Conditions Precedent for the first borrowing under HG-001, as long as 1) the net reduction in the level of loan subsidies over those generated by the current system is substantial, e.g., at least 50 percent, and 2) the policy statement of the GOH endorses the further reduction in such subsidies, both through reduction in the degree of buy-down and through targeting the subsidy by income or other measure of need.

It should be noted that the net impact on the GOH budget deficit from the reduction in subsidies and the adoption of the DPM by OTP will depend partly on GOH tax policy and OTP dividend policy. If the accrued (but not received cash) profit is taxed, as we expect, and OTP pays dividends to the GOH on it as if it had been received (which it could because of its high liquidity position) then the full benefit of the subsidy reduction flows through to the deficit. If policy is changed in either regard, the impact on the deficit will be blunted.

The Conditions Precedent for the second tranche, however, would involve a more specific commitment to progressively eliminate interest rate subsidies, as well as rationalizing other subsidies for home purchase. One approach to this would be the planned year-by-year reduction in the buy-down amount or in the amount of loan eligible for the buy-down. A related condition is that the current system for administering nearly all home purchase subsidies, channeling them through the lender, be modified to reduce the burden on the lender so as to draw additional institutions into home lending. The intent is to assure that subsidies on loan repayments on new loans be eliminated and that the remaining elements of home purchase subsidy be targeted and administratively simplified by the end of the HG-001 program.

³ In this regard it is important to note that the impact on housing affordability or new construction of reducing the initial buy-down to 2 percent is relatively small, while the budget savings in future years and the gain in control over future budgets are quite significant. The problem with all such buy-downs is that a big effect on the market today could engender large costs in the future because the repayment of the loan will be jeopardized by rapid phase-out of the subsidy.

ANNEX E

THE DEFERRED PAYMENT MORTGAGE AS AN ALTERNATIVE MORTGAGE INSTRUMENT

INTRODUCTION

Hungary has been struggling with the problem of inflation for the past five years. As in other formerly centrally-planned economies, the removal of most price controls, the reduction of government subsidies, an increase in the budget deficit and the imposition of VAT and other taxes have resulted in a rapid rise in the prices of goods and services. The annual rate of inflation in Hungary, based on the consumer price index, escalated from 8.6 percent in 1987 to 35 percent in 1991. The inflation rate has moderated somewhat in 1992 and during the first four months of 1993. However, the projected inflation rate for 1993 is still high. Government projections are for an annual rate of inflation of 14 to 17 percent, while some private economists are predicting inflation of 18 to 23 percent.

The recent range and downward trend of inflation have permitted the Hungarian economic system to function without the need to fully index wages, interest rates, or the tax system. This lack of indexation has facilitated the major changes in real wages, real prices, and real returns needed to realign economic forces during the transformation to a market economy, but has also resulted in temporary distortions in the economic and financial system. Of particular importance to the housing sector is the negative impact on housing affordability caused by the combination of high nominal interest rates and declining real wages. Since the government of Hungary (GOH) allowed mortgage interest rates to rise to market levels, the ability of the average Hungarian household to make repayments on long-term debt to finance housing has been severely limited. The result has been a sharp decline in mortgage financing.

The government has relieved some of the burden of high and variable nominal interest rates by providing large up-front grants, as well as repayment subsidies. However, the magnitude of housing subsidies has placed a severe strain on GOH budgetary resources. (See Annex D for a discussion of housing subsidies.) The GOH, with the assistance of AID and other donor agencies, is seeking financially feasible and economically rational methods to reduce the amount of repayment subsidies provided to Hungarian homebuyers, maintain housing affordability during a period when mortgage interest rates are expected to remain about 25 percent, and encourage a stable flow of private capital into the housing sector.

After analysis of several different financing structures, the GOH, with the assistance of AID consultants, has determined that the instrument best suited to the Hungarian situation is a mortgage which defers a portion of the payments

until the later years of a loan. The particular mortgage instrument which is being considered for adoption is called the deferred payment mortgage (DPM). A version of this deferred payment mortgage has been in use in Australia for a number of years in similar circumstances. There are a number of issues which must be resolved before the DPM can be introduced by Hungarian mortgage lenders. However, the basic premises on which the DPM structure are based are consistent with sound economic and financial policies and principles.

This annex explains in detail the economic and financial rationale for the DPM. Annex F explores a variety of financial and regulatory concerns, as well as a number of options for combining a subsidy with the DPM.

WHAT IS A DPM?

In general terms, a deferred payment mortgage is a standard mortgage, with either a fixed or variable rate of interest, for which a portion of the payment is deferred, i.e., added to the outstanding principal and amortized over the life of the loan. It is in concept and in practice similar to lending the borrower that portion of the payment.

The portion to be deferred could be expressed in several ways. The approach discussed in Hungary is to fix an interest rate that determines the actual cash payment and to also specify as the "contract" rate a variable rate of the type already in use in Hungary. The difference between the payment due at the payment rate, say 10 percent, and the payment due at the full contract rate, currently 28 percent, is deferred each month and added into the principal on which the next month's contract payment is calculated (the actual repayment amount could be changed less frequently).

WHY DEFER INTEREST?

It could appear to be a doubtful banking practice to lend a borrower a portion of their monthly payment. This portion is essentially a part of the interest due on the loan. Thus, the basic question is, why defer payment of this interest?

The answer goes back to the double role that the interest rate plays in modern economies. While in general, interest rates reflect the value that people place on having money now rather than later, in periods of low or no inflation or deflation, the rate reflects primarily the basic desire of most people to consume now rather than later and the fact that deferral of consumption is valuable because it permits investment in productive processes (e.g., factories, research, education).

In an inflationary economy, the interest rate must also bear the burden of compensating the provider of capital for the loss in purchasing power of a given unit of the currency involved. Thus economists speak of the market interest rate as comprised of a "real" interest rate (reflecting the productivity of capital) plus an inflation-related premium.

When an investment yields its return within a relatively short period of time, a user of capital (e.g., a borrower of a loan) can repay the full amount of the loan, plus the real interest and the inflation-premium, within a short period of time. However, some investments, such as housing, yield their returns over very long periods. Because of this, and because the house retains most of its value over that long period, houses are financed with a long-term loan. In the U.S., the term of the loan is often 30 years. In this case, and with a constant monthly payment, even after 10 years, for example, 90 percent of the original loan remains outstanding.

However, when inflation is high, rates go up to protect the lender (or ultimate provider of capital). If this inflation premium is required to be paid in cash currently, the lender is essentially accelerating the repayment of the loan. After 10 years, 90 percent of the stated principal of the loan may be outstanding, but in purchasing power, this amount may be a small fraction of the original loan amount. For example, if the inflation rate is 10 percent, the purchasing power (the "real" value) of the outstanding principal is only about one-third of the initial amount.

Alternatively, if the lender was really willing to receive only 10 percent of the real purchasing power of the funds back in ten years (in addition to the "real" interest amounts), then the lender should be willing to forego immediate cash repayment of the inflation premium, and instead let it accrue as additional "loan." In other words, the lender would be willing to see the scheduled principal amount for each period be higher over time by the amount of the inflation premium, since this would keep the lender (and the borrower) in the same real purchasing power situation as in the no-inflation case.

ACCOMMODATING THE FINANCIAL SYSTEM

In economies where inflation has long been high, the entire financial system is built upon such a premise. Everyone accepts that they, whether borrower or lender, need protection from inflation and agreements are made to adjust all the numbers involved for inflation. Thus, deposits accrue the amount of inflation, plus the real return, and loan balances rise by inflation, and borrowers pay currently only the real scheduled repayment, plus the real interest rate. Similarly, accountants adjust their calculations for the impact of inflation.

However, across-the-board indexation can be dangerous. As noted above, in economies struggling to keep inflation within a "reasonable" level, the "real" level of wages and prices adjust more easily when specific action has to be taken to compensate for the effect of inflation.

In such economies, the financial markets do not automatically adjust loan or deposit balances for inflation, but a rise in market interest rates roughly achieves the same goal. Yet the tax and accounting rules may not recognize this process, and more importantly, there may be reasons why the real risk and return situation is different from the low-inflation environment.

An important example of the problem is the behavior of depositors when receiving interest payments enlarged by receipt of the inflation premium. The depositors may choose to withdraw and spend a portion of this premium, although they would not have chosen to do so out of their initial deposit in a situation of no inflation. In other words, they may not recognize that they are eroding the real purchasing power of their savings by withdrawing some of the inflation premium. Thus, financial institutions cannot assume that depositors will act with respect to the "real" deposit levels the same way as they would in a period of no inflation.

A second example of the problem is that the credit risk associated with a loan of a given "real" amount may be greater than in a no-inflation world or an "indexed" world precisely because there is more scope for the borrower's income or the house's value to lag behind inflation. Major sectoral shifts are likely in economies in which economic policy makers are attempting to bring the level of inflation back down to acceptable limits (e.g., under 5 percent).

Other than for these two real risks associated with economies with moderately high inflation, there are no special problems, economically-speaking, with offering long-term borrowers the option of essentially adding all or a portion of the inflation premium back into the nominal loan amount due. These substantive risks are addressed below, after discussion of some other types of problems associated with a financial environment that is not fully indexed.

FINANCIAL INTERMEDIATION IN AN UN-INDEXED ECONOMY

Other problems arise in an un-indexed but inflationary economy because the tax accounting and regulatory environment do not explicitly recognize the appearance of inflation premiums and other impacts. In the U.S., some of these adjustments were made after the period of high inflation in the late 1970s, including indexing the tax brackets and using LIFO inventory accounting. Other adjustments, such as not taxing the inflation premium in returns on debt or equity, have yet to be adopted.

Although there is broad understanding of the effect of inflation premiums on market interest rates and apparent (but not real) returns on assets, the inflation problem has subsided sufficiently to make the large costs of fully indexing the economy not worth the benefits

Hungary continues to experience a level of inflation (over 20 percent) in which all nominal money amounts tend to at least double every four years. Especially in the area of tax accounting, taxes are being paid on "profits" that essentially reflect only a reimbursement for loss of purchasing power.

In such a context, all financial institutions should recognize that growth in liabilities, assets, capital, or profits at less than the rate of inflation signifies a real shrinkage of their position. Such a shrinkage certainly can and does happen, just as these values can decline in cash terms in a period of no inflation.

On the other hand, if an institution does not expect any real shrinkage in these key areas, then it can plan on nominal increases at least as large as inflation. It should also recognize that real holdings of various types of assets are shrinking unless the inflation premium received from these assets is plowed back into expanding the nominal holdings of the asset.

For example, the "real" holdings of long-term mortgages will rapidly decline if the inflation premium is not invested in additional mortgages (after having paid taxes on it). Similarly, if the inflation premium is received currently from the borrower, the effective term of the loan may be shortening dramatically. This can be seen in terms of the share of a given portfolio of loans out of total assets, in terms of the real purchasing power of the remaining principal, or in terms of the ratios of loan amount to collateral value (LTV) or payment-to-income (PTI) streams.

Alternatively, the lender can capitalize the inflation premium portion of the return back into the nominal loan, thereby preserving the same "real" levels of cash flow expected under a situation of no inflation. This is what happens when a financial system is fully indexed.

There are several advantages to not indexing long-term loans when the rest of the financial system is not indexed. First, as inflation rises, the credit risk associated with long-term lending can rapidly decline. Borrower incomes will tend to rise (but not always in match with inflation if the system is not indexed) as well as does the value of the collateral, at least relative to a no-inflation world. Credit risk on account of collateral shortage or payment burden is reduced at each future period and ordinarily (i.e., assuming there is ability to enforce repayment) credit risk should become negligible after only a few years.

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Second, current cash flows increase, permitting re-deployment of assets to different purposes without having to convert assets to cash through sales or other liquidations

Third, the tax authorities will want the same amount of taxes, including taxes on the inflation premium, whether the lender defers the payment or not. This can also cause cash flow problems

Fourth, as the portfolio of loans rises, the lender will need to add to the capital base of the institution. This also requires a greater degree of liquidity than if the lender has the option of rapidly shrinking its "real" portfolio by reducing loan originations

Fifth, the accelerated repayment on existing loans (i.e., the current receipt of the inflation premium) permits the issuance of a greater amount of new loans. To the extent that accounting or market factors make the loan origination process a relatively more profitable activity, the lender would prefer to issue more shorter-term loans rather than fewer longer-term loans

These are all good reasons why lenders would prefer to simply collect the inflation premium currently. In addition, there is the correlation noted above between inflation and real economic instability, which can significantly increase the uncertainties with respect to real deposit levels, real collateral values, and real repayment capacities

INTRODUCING A DPM TO HUNGARY

On the other side of the ledger is the borrower, who must pay the inflation premium out of current income and ends up having effectively repaid the long-term loan over a much shorter period. Essentially, the borrower can only afford to do so up to a certain point, beyond which the borrower will have to reduce the size of the loan and/or the value of the house being purchased or not borrow at all. At current interest rates in Hungary of 28 percent, the last would probably be the most common option

Instead, however, the GOH is easing the blow of the high inflation premium by itself paying a major portion of it (see Annex D on these subsidies). It is a goal of HG-001 to reduce these large subsidies and the most direct method of doing so, without increasing the repayment burden on the borrower, is to have the lender defer all or a portion of the inflation premium

One approach to this is to defer the full amount of the inflation premium. This is accomplished by indexing the loan amount for inflation and thus the loan is called a Price-Level Adjusted Mortgage (PLAM). Another approach is to add to (subtract from) the full inflation premium the amount that the average repayment capacities of borrowers lag behind (exceed) the inflation rate. This is called the Dual-Index Mortgage (DIM) and provides extra protection to the borrower (but increases the risks of the lender).

Both of these mortgages require the use of statistical indexes of price and wage changes. A simpler and less risky approach is to set a repayment rate on mortgages that is greater than the real interest rate and is towards the upper end of what borrowers can handle in terms of currently repaying a portion of the inflation premium. But the portion of the inflation premium that exceeds that amount is then deferred. The DPM is such a loan.

By varying the level of the repayment interest rate (here called the payment rate), the lender can fine-tune the degree to which he is accepting the burdens and risks noted above associated with deferring payment of the inflation premium. Moreover, if the contract interest rate on the loan is variable, and market rates fall to less than the payment rate, the loan automatically converts to a standard loan, with no additional burdens or risks. This is particularly desirable in the Hungarian context, where there are reasonable prospects of much lower rates of inflation in the future.

RISKS OF THE DPM

While the DPM may permit a compromise between a PLAM and a standard mortgage, and while it restructures the loan more towards being a true long-term loan of the type that existed in Hungary before the recent higher inflation rates, there has to be a significant increase in risks associated with moving from the current system of collecting a full inflation premium (with government assistance) to deferring a major portion of the inflation premium (to be repaid eventually without any government assistance). In other words, truly lending long-term is riskier in every dimension than lending short-term.

Therefore, a major policy component of HG-001 is the reduction and improved management of these risks, which are mostly related to greater credit losses and liquidity difficulties. In both cases, the key factor potentially ameliorating these risks is the current low level of loan amounts relative to the market value of the collateral. These low LTV ratios (usually under 50 percent) provide a significant buffer against swings in the inflation-adjusted value of the home and a strong basis for forcing the voluntary sale of the home in case of repayment difficulties. As noted elsewhere, this

buffer is not readily accessible under current Hungarian laws and court procedures, but HG-001 is designed to develop both access to this buffer and to institutionalize that access in the form of a mortgage insurance program that improves the ability of lender to limit and liquidate their losses or to eventually create a mortgage-backed security that could be sold to generate liquidity

ANNEX F

THE DEFERRED PAYMENT MORTGAGE STRUCTURE, ANALYSIS AND ISSUES

INTRODUCTION

During the last three years, Hungary has been struggling with the problems of inflation and a large budget deficit. The fiscal and economic conditions in the country have resulted in increases in nominal interest rates from under 20 percent in 1988 to over 35 percent by the end of 1991. The simultaneous liberalization of controls over mortgage interest rates intensified the negative impact of the recent rise in market interest rates on the housing finance and residential construction markets. Although market interest rates have declined over the last five quarters, mortgage interest rates still are over 25 percent.

The government of Hungary (GOH) has attempted to mitigate some of the burden of high nominal interest rates by providing large, long term repayment subsidies to mortgage borrowers. However, given the need to reduce the budget deficit, the budgetary resources which will be available for housing in the future will not be adequate to sustain even a modest level of housing activity under the existing housing subsidy system. Therefore, the GOH has been evaluating methods to reduce the amount of housing finance subsidies provided to Hungarian home buyers and, at the same time, maintain housing affordability, stimulate residential construction and encourage a stable flow of private capital into the housing sector.

Among other initiatives, the GOH intends to implement alternative mortgage instruments designed to enable the GOH to reduce the amount of housing subsidies without impairing housing affordability. The GOH, with the assistance of AID consultants, has determined that the instrument best suited to the Hungarian situation is a deferred payment mortgage (DPM) which defers a portion of the interest due on a mortgage until the later years of the loan term. Adoption of the DPM for GOH subsidized mortgages will allow a reduction in the amount of repayment subsidies provided and still have housing finance affordable to a significant portion of the population at mortgage interest rates of 25 to 30 percent.

Since DPM loans will be offered by financial institutions, a critical consideration in designing an appropriate mortgage instrument is the impact on the profitability and financial soundness of these mortgage lending institutions, principally the National Savings and Commercial Bank (OTP). The GOH does not want to propose, nor would financial institutions accept, financing structures which are not reasonable and sound on a business basis. There are a number of issues which must be resolved before the DPM can be introduced by Hungarian mortgage lenders. However, the basic premises on which the DPM structure are based are consistent with sound economic and financial policies and principles.

THE STRUCTURE OF A DPM

In general terms, a deferred payment mortgage is a standard mortgage, with either a fixed or variable rate of interest, for which a portion of the payment is deferred, i.e., a portion of the interest is capitalized, added to the outstanding principal and amortized over the remaining life of the loan. In concept, the capitalization of interest on a DPM is similar to extending the borrower a line of credit for a series of additional advances for the portion of the payment which represents capitalized interest. See Annex E for the economic and financial rationale for the DPM.

The DPM differs from other deferred payment loan structures, like the dual-index mortgage (DIM), in that neither the contract rate at which the interest due is computed nor the rate on which the actual amount of the periodic payment is based is linked to a price or wage index. The interest rate (the Contract Rate) on the DPM proposed for Hungary will be set at the current market rate, based on the mortgage lender's normal loan pricing policies and procedures. The borrower's actual payments will be based on a lower interest rate which will make the loan affordable (the Payment Rate). In the first quarter of 1993, the market mortgage rate ranged from 28 percent at the OTP and the savings cooperatives to as high as 32 percent at other banks. The mortgage interest rate at the time the DPM will be introduced is projected at 26 percent. Since the payment rate will be less than the contract rate, the actual payment made at the payment rate will not cover the interest due at the contract rate and the difference will be capitalized and amortized.

Obviously, the payment rate used for the DPM will have a significant impact on both the borrower and the mortgage lender. The method for establishing this rate has not yet been determined. The payment rate could be based on some market rate index such as a weighted average cost of funds for bank deposits, the rate paid by the Hungarian National Bank (MNB) on interest bearing bank reserves, or the rate paid on GOH Treasury securities. Alternatively, the rate could be established by the GOH or individual mortgage lenders under some general affordability guidelines. The payment rate could be fixed or adjustable over the life of the loan.

The GOH has determined that in order to maintain affordability, some form of mortgage subsidy will be required, at least until inflation and interest rates are brought down. The proposed mortgage interest subsidy will pay a portion of the total interest cost of the loan for a specified number of years. The interest rate subsidy is a factor which must be taken into consideration in designing the structure of a DPM loan because the subsidy structure affects both the original loan principal amount affordable at a given income level and the amount of the borrower's payments over the term of the loan.

There are numerous ways in which the mortgage interest subsidy could be structured. The borrower's required payment could be computed at the payment rate, with the GOH interest rate subsidy payments going to reduce, or "buy out" some of the capitalized interest. Alternatively the DPM payment rate could be the rate at which the total payment, including the GOH subsidy, is computed. In this case, the GOH interest rate subsidy payments would be deducted from the total payment due to arrive at the net payment which the borrower will be required to make. In effect, the GOH interest rate subsidy "buys down" the borrower's interest rate.

The controlling factor in determining both the payment rate on a DPM loan and the method by which the interest rate subsidy will be applied will be the affordability of the DPM loan to a target income group. A number of different DPM financing options have been evaluated as part of this analysis. The schedules presented in Exhibit 1 of this Annex illustrate the impact on affordability of four alternative DPM financing structures which could be considered for adoption in Hungary.

FINANCIAL IMPLICATIONS OF THE DPM

The DPM financing structure has significant financial implications for the GOH, the borrower and the mortgage lender. For the borrower, the lower initial payments on a DPM structure allow him/her to qualify for a loan under standard loan underwriting criteria which would be beyond his/her means with a standard variable rate mortgage at the full market interest rate. If the borrower were required to make the full payment at market mortgage interest rates, most prospective home buyers would not qualify for any significant loan without a large GOH subsidy. Even under the existing subsidy system, which provides large repayment subsidies, the average loan to value ratio on mortgage loans made by the OTP in 1992 was about 25 percent. The balance of the purchase price came from GOH social policy subsidies, employer grants and the borrowers' own funds.

Impact on GOH Mortgage Subsidies

The DPM results in significant financial benefits to the GOH because it allows the GOH to reduce the amount of payment subsidy required for each loan. As discussed in Annex D, the current "deep" repayment subsidy on the first HUF 400,000 of a loan pays 40, 70 or 80 percent of the first five years' payments and lower percentages of the payments for the following ten years. The "shallow" repayment subsidy for the balance of a loan over HUF 400,000 and non-qualifying loans pays 30 percent of the payment for the first five years of a loan and 15 percent for the next ten years. A HUF 1 million loan at a 26 percent interest rate under the current subsidy system for a family with two children would require total subsidies of almost HUF 1.1 million over the fifteen year subsidy period. The present value of

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these subsidies, discounted at an assumed GOH cost of funds of 18 percent, would be HUF 481,865, or almost 44 percent of the loan amount. Subsidies at this level are not sustainable even at the low mortgage volumes experienced in 1992.

The greater affordability of a DPM loan will permit the GOH to eliminate the deep subsidy entirely and replace the shallow subsidy with a new subsidy structure which will pay a portion of the mortgage interest rather than a percent of the mortgage payment. The specific subsidy structure which will be implemented is still under discussion by the GOH, but the options which appear to have the greatest support provide for the payment of a certain percent interest on the outstanding loan balance on a stepped-down schedule over ten to fifteen years. The subsidy structure which has received the greatest consideration by the Hungarians is one in which the DPM payment rate is 10 percent and the interest rate subsidy is 4%, 3%, and 1% for successive five year intervals. These and other DPM structuring options will result in per loan cost savings to the GOH. Therefore, if the volume of mortgage lending remains at 1992 levels, the total subsidy cost to the GOH will be reduced. If the volume of mortgage lending increases, total interest rate subsidies may not decline or may even increase, but the financial resources available for housing finance subsidies will be used more efficiently.

Although the DPM financing structure will permit the GOH to reduce mortgage payment subsidies immediately and still have mortgage finance affordable to a reasonable percentage of Hungarian households, an escalating loan balance will increase the nominal amount of the subsidy payment which the GOH must make in the future. The burden on future budgets will increase, at least during the five year periods until the next reduction of the subsidy rate.

Impact of Interest Capitalization

The interest capitalization which is required in the DPM financing structure has several implications for the home buyer. With or without a GOH subsidy, the borrower's monthly payments will increase significantly over the life of the loan. A loan structure which requires increasing payments is best suited for a young household with most of its earning potential in the future. A DPM structure poses greater risk to a more mature borrower who perhaps has reached his/her peak earning capacity and may even face unemployment or reduced income in the future.

If the borrower's income does not keep pace with the payment increases, he/she may find it increasingly difficult to meet his/her payment obligations, although under a DPM with a payment rate of 10 percent or more, the payment burden in real terms should not increase unless the rate of growth in the borrower's income lags behind inflation by 3 percent or more. The "payment shock" of these escalating payments also is of concern to the lender because the credit risk of a DPM

loan may be greater than the credit risk on the current variable rate mortgage. The DPM will require more careful underwriting at origination to reduce the risk exposure of both the borrower and the lender.

An increasing loan balance could limit the growth of the borrower's equity in the house and even erode the owner's equity if the value of the home does not rise at a rate at least equal to the rate at which the outstanding balance of the loan increases. At the low loan-to-value ratios currently in effect in Hungary, the potential erosion of the owner's equity and, hence, the lender's security, is of less serious concern than in other countries where loan-to-value ratios are much higher.

The high level of capitalized interest of a DPM financing structure also raises questions of proper accounting and regulatory treatment for the mortgage lender which will be discussed later in this Annex. One issue which can be addressed in part by proper pricing of the payment rate is the potential cash shortfall between the cash received at the payment rate and the cash expenses incurred in originating and servicing the loan portfolio. For most of the life of the loan, the DPM structure generates accounting earnings for the mortgage lender which greatly exceed the cash payments received. Any liquidity strain which results from this cash flow mismatch could be intensified if the mortgage lender is required to maintain liquid reserves against the capitalized interest portion of the DPM. Discussions with MNB officials during the project team's recent visit to Hungary indicate that the 14 percent mandatory reserve would not be applied to the DPM loan balances. However, the outstanding DPM loan balance may be subject to the 2 percent liquidity reserve, which applies to total assets rather than deposits.

A well designed DPM financing structure will generate sufficient cash flow from DPM payments to cover cash expenses, such as personnel and servicing costs, to pay the income tax due on both the interest payment actually received and the "interest earned, but not collected" and to fund any cash reserves which may be required. Otherwise, the bank would have to use other cash resources to pay the cash expenses incurred in originating and servicing DPM loans. The possibility of a significant level of DPM lending activity straining a bank's liquidity could limit the participation of institutions in the DPM loan program.

ANALYSIS OF DPM FINANCING

Key Parameters and Constraints

Since the objectives of adopting a DPM financing structure are to reduce GOH payment subsidies, maintain or increase housing affordability to Hungarian households, and offer a sound and profitable business opportunity to mortgage

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lenders, these three factors should be the determining constraints for the structure of any DPM financing. The key variables in a DPM financing are the market interest rate, the payment rate, the GOH subsidy rate, the structure of the subsidy, the monthly payment to income ratio and the loan-to-value ratio. A detailed analysis of alternative DPM loan structures was undertaken to determine their impact on GOH subsidies, affordability and the financial return to lenders. A HUF 1 million loan was evaluated under different assumptions within the constraint of maintaining mortgage affordability under DPM financing at least equal to the affordability under the current costly GOH subsidy system.

Target Income Groups

The first step was to determine the target income groups which would be most likely to be in the home purchase and financing market. Based on a survey of household income conducted in mid-1992, the median monthly household income of households in the ages relevant for the housing market was approximately HUF 27,000 in 1992, or \$342.00 based on 1992 exchange rates.

Assuming that the household incomes will have risen by 25 percent over the estimated 18 months from the date of the 1992 income survey until the time the DPM is introduced in early 1994, the median monthly household income is projected at approximately HUF 33,750. Moreover, under the current mortgage subsidy structure, assuming a 26 percent mortgage rate, an initial deep subsidy of 70% of the payment on the first HUF 400,000 of the loan and a shallow subsidy of 30% of the payment on the balance of the loan, the minimum income required to qualify for a HUF 1 million loan at a 33 percent payment to income ratio is HUF 35,663. Therefore, in the analyses of alternative DPM financing structures presented in Exhibit 2 of this Annex, a HUF 34,000 monthly income to qualify constraint has been imposed and the other variables adjusted to meet that constraint. It has also been assumed that the maximum first year average monthly payment to initial monthly income ratio will be 33 percent. Table 1 presents a summary of the affordability of three alternative DPM financing structures to borrowers earning HUF 34,000 at the time the loan is originated. As the table indicates, under all alternative DPM loan structures presented, a household earning HUF 34,000 can afford to finance the purchase of a home costing HUF 4,000,000 (approximately \$47,620) at loan-to-value ratios above the average loan-to-value ratio on mortgage loans extended by the OTP in 1992.

Interest Rates

The market rate on future DPM financing will be determined by external factors. Since market interest rates have been falling in 1993, it has been assumed that by the time the DPM is introduced, the market mortgage rate will be 26 percent.

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For purposes of this analysis, it has been assumed that the projected 1993 mortgage interest rate of 26 percent is constant throughout the twenty year life of the DPM, which is a pessimistic assumption about future inflation rates in Hungary. This rate does not include the additional servicing fee of 1 percent which the OTP currently assesses on its loans. Appropriate servicing fees for a loan with an escalating outstanding balance should be considered separately.

Previous financial analyses of the DPM loan have utilized a 10 percent DPM payment rate, an interest rate which is below the weighted average cost of funds at Hungarian financial institutions and, in some cases, is below the effective interest cost to the borrower under the existing subsidy system. As the affordability schedules provided in Exhibit 1 of this Annex show, it is not necessary to set the DPM rate at this low a level to maintain affordability to households in the target income group, particularly if the total payment on the DPM is computed at the 10 percent payment rate and the payment actually made by the borrower is the difference between the payment to amortize the loan balance at 10 percent and the GOH interest rate subsidy. Furthermore, using a payment rate which is lower than the cost of funds for mortgage lenders results in cash flow deficits on a DPM portfolio, at least for the early years of the loan. Serious consideration should be given to use of a higher interest rate as the payment rate.

Loan Amortization and Subsidy Computation

The OTP, which accounts for over 90 percent of all mortgage finance in Hungary, currently does not employ a standard amortization methodology for the mortgages it holds. It is assumed that the DPM loan will be amortized in accordance with the amortization systems generally used in the U.S. Technical assistance will be provided to the OTP and other lenders to facilitate the conversion of their loan servicing systems to permit mortgage amortization in accordance with standard western loan servicing practices. Therefore, the analysis of DPM financing structures has employed standard loan amortization, not the system currently in effect at the OTP.

Under the variable rate mortgage currently offered by the OTP, the interest rate, the borrower's payment and the GOH subsidy are adjusted annually. More frequent adjustments would involve substantial administrative cost. In addition, since the Hungarian mail system is quite inefficient, it is difficult to provide notices to borrowers of the change in terms of their loans in a timely manner. The DPM analysis assumes that borrower payments will be adjusted semiannually, rather than annually. Ultimately it would be desirable to adjust payments quarterly or even monthly if the administrative cost does not outweigh the benefits. More frequent adjustment of mortgage payments will reduce the "payment shock" of escalating

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payments under the DPM structure and also will minimize the amount of interest which is capitalized

GOH mortgage subsidies currently are paid annually, in arrears. In the DPM analysis, it has been assumed that subsidy payments will be made monthly and adjusted semiannually. In other words, the subsidy for a six month period will be computed based on the subsidy rate and the beginning loan balance for the period. The total subsidy for six months is paid in six equal installments.

Subsidy Structures Evaluated

To the extent possible, the DPM financing structure should minimize the amount of interest capitalization, especially in the early years of a loan, while maintaining affordability to a significant percentage of Hungarian households. Reducing interest capitalization in the early years reduces the total subsidy required, the borrower's total interest expense, and the credit risk to the mortgage lender. The implications of a number of different DPM loan structures for the GOH, the borrower and the mortgage lender were evaluated for a HUF 1 million loan. Different DPM variables were tested under two basic subsidy structures.

The first subsidy structure is essentially a "buy-down" of the contract interest rate. Under this structure, the DPM Payment is computed at the DPM Payment Rate, the interest paid by the GOH at the Interest Subsidy Rate is deducted from that payment, with the balance paid by the borrower. This is the financing structure which the GOH has had under consideration. DPM structure 1 employs a 10 percent DPM Payment rate and a 4%/3%/1% interest rate subsidy stepped-down at five year intervals. The phase out of the "buy-down" subsidies results in increases in the borrower's payments over and above that required to amortize the escalating DPM loan balance. Therefore, the "payment shock" of higher payments may be intensified, placing greater strain on the borrower's financial capacity to make his payments and increasing the credit risk to the lender.

The second subsidy structure evaluated is an interest "buy-out" structure. Under this structure, the borrower's payment is computed at a constant borrower payment rate and the GOH pays an additional amount of interest at the interest subsidy rate to reduce the amount of interest capitalization on the mortgage. The interest "buy-out" subsidy structure does not directly affect the borrower's payment, since the borrower's payment to amortize the escalating DPM loan balance is always calculated at the Borrower Payment Rate. However, the phase-out of GOH subsidies will increase the amount of interest capitalization and, therefore, indirectly result in a further increase in the borrower's payments. The "buy-out" subsidy structure will also mean a gradual reduction in the amount of interest collected by the lender, resulting in declining cash flows during the middle years of the loan term.

Two options under the "buy out" subsidy structure are presented. DPM structure 2 has the same 10 percent payment rate and a 4%/3%/1% stepped-down interest rate subsidy as DPM structure 2, but the borrower pays the full payment at the payment rate and the subsidy goes toward reducing the amount of interest being deferred. The borrower's payment is the payment required to amortize the outstanding balance over the remaining life of the loan at an interest rate of 10 percent.

Because concern has been expressed about the fiscal impact of interest rate subsidies paid for a full fifteen years, several DPM structures were analyzed employing subsidies for shorter periods of time, with a higher subsidy during the initial years of the loan. DPM structure 3 employs a 10 percent borrower payment rate and a 5%/4%/2% interest rate subsidy stepped-down over ten years, rather than the 15 years used in the other two financing structures.

Each alternative also was evaluated in terms of its impact on the financial position of a mortgage lender. The profitability under various loan loss provisioning assumptions, the impact on the lender's balance sheet and capital adequacy and the sufficiency of the cash flow generated by the loans to cover the lender's cash expenses were considered.

Results of the Analysis

Based on these analyses, it appears that there may be several options which would be effective in reducing GOH subsidies, maintaining borrower affordability at loan-to-value ratios equal to or greater than the OTP experienced in 1992 and providing a reasonable profit without undue risk to the DPM lender. Summaries of some of the critical variables for the GOH and the borrower under the alternative DPM financing structures presented are given in the tables on the following pages.

As the summary data show, all of the DPM financing structures resulted in reductions in both the total amount of GOH subsidies required and the present value of those subsidies discounted at an assumed 18 percent GOH cost of funds. The results of the analysis also demonstrate the effectiveness of the DPM loan structure in maintaining or enhancing mortgage affordability. Under all three alternatives, the minimum income to qualify for the HUF 1 million loan was lower than that required for the existing subsidized VRM mortgage.

The reduction in the amount of subsidy provided does result in a significantly higher effective interest cost to the borrower and larger payments to amortize the loan. Based on a constant contract rate of 26 percent over the life of the loan, the nominal effective interest rate to the borrower over the life of the loan was between 23.81 and 24.28 percent, compared with the 16.54 percent nominal effective interest

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rate under the current subsidy system. DPM financing also results in much greater increases in the borrower's payments, in nominal terms. Underwriting these DPM loans prudently will be difficult, since the evaluation of the financial capacity of the borrower to meet his/her payment obligations must be based on the assumptions that the borrower's income will increase in the future at a rate which will maintain a reasonable payment to income ratio at a stable contract interest rates and/or that market interest rates will decline far enough and quickly enough to reduce the amount of interest capitalization.

Both interest rate "buy out" DPM structures (DPM structures 2 and 3) generate sufficient cash flow to offer mortgage lenders a reasonably attractive investment opportunity. DPM structure 1, however, results in a negative cash flow during the early years of the loan which would make this financing option less attractive to prospective participating financial institutions.

DPM Structure 1 A 10 Percent DPM Payment Rate and a 4%/3%/1% Interest Rate "Buy-Down" Subsidy Stepped-Down Over Five Year Intervals

DPM structure 1 is the most affordable of the three structuring alternatives. A borrower earning HUF 34,000 could afford a loan of over HUF 1.75 million which would finance the purchase of a home costing HUF 4 million at a 44.4 percent loan to value ratio. However, this structure has several material weaknesses. First, it is the most costly to both the GOH and the borrower. The total subsidy over the fifteen year subsidy period is HUF

Table 1

**SUMMARY OF AFFORDABILITY OF
ALTERNATIVE DPM LOAN STRUCTURES
TO TARGET INCOME GROUP**

Assumptions	
Target Initial Monthly Income (in HUF)	34,000
Target Purchase Price of House (in HUF)	4,000,000
Minimum Loan-to-Value Ratio	25%
Maximum Initial Payment to Income Ratio	33%

	DPM Structure 1	DPM Structures 2 & 3
	10% DPM Rate & 4% Initial Subsidy	10% Borrower Payment Rate
Maximum Loan Available to a Borrower Earning HUF 34,000 at a 33% Payment to Income Ratio	1,776,000	1,162,668
Maximum House Price at Loan-to-Value Ratios of		
25%	7,104,000	4,650,673
30%	5,920,000	3,875,561
35%	5,074,286	3,321,909
40%	4,440,000	2,906,671
50%	3,552,000	2,325,336
60%	2,960,000	1,937,780
Loan-to-Value Ratio at Target House Price	44 40%	29 07%

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Table 2

**SUMMARY OF BORROWER PAYMENTS ON A HUF 1 MILLION LOAN
UNDER CURRENT VRM REPAYMENT SUBSIDY SYSTEM
AND ALTERNATIVE DPM LOAN STRUCTURES**

Current Subsidy System	Deep Subsidy on HUF 400 000 of 70%/35%/15% Shallow Subsidy of 30%/15% on Balance
DPM Structure 1	DPM Payment Rate of 10% Subsidy Rate of 4%/3%/1% 15 Years
DPM Structure 2	Borrower Payment Rate of 10% Subsidy Rate of 4%/3%/1% 15 Years
DPM Structure 3	Borrower Payment Rate of 10% Subsidy Rate of 5%/4%/2% 10 Years

Year	Current Subsidy System	DPM Structure 1	DPM Structure 2	DPM Structure 3
0	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)
1	141,224	79,194	119,484	119,176
2	141,224	94,046	135,166	133,471
3	141,224	111,787	152,914	149,487
4	141,224	133,012	173,006	167,435
5	141,224	158,444	195,752	188,525
6	201,374	209,977	222,085	215,485
7	201,374	249,642	253,876	246,331
8	201,374	297,126	290,262	282,368
9	201,374	354,069	331,921	326,158
10	201,374	422,491	379,642	376,832
11	222,296	581,915	436,622	437,796
12	222,296	689,415	509,938	516,485
13	222,296	817,607	595,886	609,683
14	222,296	970,842	696,809	720,260
15	222,296	1,154,596	785,216	851,791
16	261,525	1,429,709	968,599	1,008,850
17	261,525	1,697,194	1,149,815	1,197,597
18	261,525	2,022,550	1,370,237	1,427,179
19	261,525	2,429,832	1,646,162	1,714,571
20	261,525	2,851,586	1,931,892	2,012,175
Total Payments	4,132,095	16,755,034	12,345,284	12,701,655
Effective Interest Rate	16.54%	24.28%	23.85%	23.81%

Table 3

**SUMMARY OF CURRENT VRM REPAYMENT SUBSIDY SYSTEM
AND ALTERNATIVE DPM LOAN STRUCTURES**

Current Subsidy System	Deep Subsidy on HUF 400 000 of 70%/35%/15%
DPM Structure 1	Shallow Subsidy of 30%/15% on Balance
DPM Structure 2	DPM Payment Rate of 10% Subsidy Rate of 4%/3%/1% over 15 Years
DPM Structure 3	Borrower Payment Rate of 10% Subsidy Rate of 4%/3%/1% over 15 Years
	Borrower Payment Rate of 10% Subsidy Rate of 5%/4%/2% over 10 Years

Variable	Current Subsidy System	DPM Structure 1	DPM Structure 2	DPM Structure 3
INTEREST RATES				
Contract Interest Rate	26 00%	26 00%	26 00%	26 00%
Initial Effective Borrower Interest Rate	13 13%	4 71%	10 00%	10 00%
Effective Borrower Interest Rate Over Life of the Loan	16 54%	24 28%	23 85%	23 81%
AFFORDABILITY				
Minimum Income Required at 33% First Year Total Payment/Income Ratio	35,663	19 998	30 173	30 095
Minimum Income Required at 40% Third Year Total Payment/Income Ratio	29 422	23 289	31,857	31 143
PROJECTED PAYMENT INCREASE				
Total Payments in Year 1	141 224	79 194	119 484	119 176
Total Payments in Year 6	201 374	209 977	222 085	215 485
Total Payments in Year 11	222 296	581 915	436 622	437 796
Total Payments in Year 16	261 525	1 429 709	968 599	1 008 850
SUBSIDIES				
Subsidy in Year 1	120 302	41 522	41,100	51 243
Total Subsidies	1 098 410	924 730	728 094	522 180
Present Value of Subsidies @ 18% GOH Cost of Capital	481 865	303 507	256 298	242 363

Table 4

**SUMMARY OF FINANCIAL IMPACT ON LENDER OF
A HUF 1 MILLION DPM LOAN UNDER ALTERNATIVE DPM LOAN STRUCTURES**

DPM Structure 1
DPM Structure 2
DPM Structure 3

DPM Payment Rate of 10% Subsidy Rate of 4%/3%/1%
Borrower Payment Rate of 10% Subsidy Rate of 4%/3%/1% over 15 Yea
Borrower Payment Rate of 10% Subsidy Rate of 5%/4%/2% over 10 Yea

Variable	Year 1	Year 2	Year 3	Year 4	Year 5
INTEREST INCOME COLLECTED					
DPM Structure 1	120 716	142 084	167 250	196 896	231 828
DPM Structure 2	160 584	180 867	203 625	229 142	257 720
DPM Structure 3	170 419	189 882	211 456	235 346	233 285
INTEREST INCOME CAPITALIZED					
DPM Structure 1	157 496	179 652	204 033	230 523	258 837
DPM Structure 2	112,508	122 670	133 024	143 310	153 162
DPM Structure 3	101 400	109 223	116 961	124 360	163 254
NET AFTER TAX PROFIT WITH A PROVISION OF 50% OF CAPITALIZED INTEREST					
DPM Structure 1	9,974	20 020	32,283	47 047	64 773
DPM Structure 2	29 419	37 733	47 229	48,031	70,266
DPM Structure 3	34 216	41 824	50 374	59 943	56 716
DIVIDENDS PAYABLE @ 50% OF NET CASH INCOME					
DPM Structure 1	0	0	0	4 021	12 285
DPM Structure 2	16,483	20 042	24 272	29 306	35 308
DPM Structure 3	21,658	25 450	29 860	34 999	26 010
CAPITAL TO ASSETS RATIO					
DPM Structure 1	7 70%	8 23%	9 23%	10 69%	12 52%
DPM Structure 2	8 35%	8 96%	9 76%	10 74%	11 85%
DPM Structure 3	8 40%	9 00%	9 75%	10 63%	11 46%
INCREASE/DECREASE IN CASH					
DPM Structure 1	(8 974)	(6 089)	(1 907)	4,021	12 285
DPM Structure 2	16,483	20 042	24 272	29 306	35 308
DPM Structure 3	21 658	25 450	29,860	34,999	26,010

924,730 and the present value of the subsidy stream assuming an 18 percent GOH cost of funds is HUF 303,507, about 63 percent of the discounted cost of the current subsidy for a loan of the same size

The effective interest cost to the borrower would be 24.28 percent and nominal payments over the life of the loan would total almost HUF 16.8 million. Of the three DPM options considered, this DPM loan structure results in the largest year-to-year percentage increases in mortgage payments. The annual payments required increase by 18.6 to 19.2 percent during the five year intervals when the interest rate subsidy is constant and by 32.5, 37.7 and 23.8 percent respectively in years 6, 11 and 16, when the interest rate subsidy is reduced. The annual percentage increase in mortgage payments for the other two DPM options average about 14 percent during the years in which the subsidy is paid and 19 percent during the later years of the loan when the subsidy has been phased out.

Of the three options evaluated, only DPM structure 1 generated negative cash flows for the lender. The cash payments actually received by the mortgage lender in the early years of the loan, including both the borrower's payment and the GOH subsidy, are not sufficient to cover the lender's expected marginal cash expenses. The actual cash shortfall will be greater when premises, personnel and general and administrative expenses are allocated to this portion of the bank's assets/activities.

If the decision is made to use the "buy-down" interest subsidy structure, a higher interest rate should be used. For example, if a 12 percent DPM payment rate were used, a household earning HUF 34,000 could borrow approximately HUF 1.5 million to finance the purchase of a HUF 4 million home at a 37.5% loan-to-value ratio. The use of a 12 percent DPM payment rate would reduce both the GOH subsidy required and the effective cost to the borrower. However, even if a 12 percent DPM payment rate were used, the "buy-down" subsidy structure would result in somewhat higher costs to the GOH and the borrower than both of the "buy-out" options evaluated.

DPM Structure 2 A 10 Percent Borrower Payment Rate and a 4%/3%/1% Interest Rate "Buy-Out" Subsidy Stepped-Down Over Five Year Intervals

DPM structure 2 also uses a 10 percent payment rate and a 4%/3%/1% interest rate subsidy stepped-down in five year intervals. The difference between this financing structure and DPM structure 1 is the way in which the borrower's payment is computed and the interest rate subsidy applied. In this case, the borrower's payment is the payment to amortize the outstanding balance of the loan over the remaining term at a 10 percent interest rate. The GOH interest rate subsidy is paid in addition to the borrower's payment to reduce the amount of interest capitalization.

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This interest "buy-out" structure enables a household earning HUF 34,000 to borrow up to HUF 1,162,668. A loan of this size could finance the purchase of a house costing HUF 4 million at a 29.1 percent loan-to-value ratio. If the borrower financed 40 percent of the cost of the house, he/she could afford a house selling for approximately HUF 2.9 million.

This DPM financing structure results in significant cost savings to the GOH. The total subsidy cost over the fifteen year subsidy period would be HUF 728,094 and the present value of the subsidy stream discounted at an 18 percent GOH cost of funds would be HUF 256,298, 53 percent of the present value of the subsidies under the existing subsidy system. The effective interest cost to the borrower and the magnitude of the payment increases over the term of the loan also would be somewhat less than under DPM structure 1.

DPM Structure 3: A 10 Percent Borrower Payment Rate and a 5%/4%/2% Interest Rate "Buy-Out" Subsidy Stepped-Down Over Ten Years

This financing option offers a higher subsidy during the early years of the loan and reduces the length of time over which a subsidy is provided. A 5 percent interest rate subsidy is paid for the first four years, a 4 percent subsidy for the next three years and a 2 percent subsidy for years 8 to 10.

Housing affordability under this financing structure is the same as for DPM structure 2, since both alternatives use a 10 percent borrower payment rate. The principal benefit of a subsidy structure which pays a higher initial subsidy but limits the life of the subsidy is a reduction in the amount of the subsidy required to achieve the same net benefit to the borrower. The total subsidy under this structure is HUF 522,180 and the present value of the subsidy stream is HUF 242,363, a 50 percent reduction from the subsidy which would be required for the same loan under the current subsidy system. The effective interest cost to the borrower is slightly less than the cost under DPM structure 2. The year-to-year percentage increase in payments under this DPM option is lower than the 15-year interest "buy-out" structure from the first to the fifth year of the loan and is marginally greater than the annual rate of increase in payments for the balance of the loan term. The annual percentage increase in the payments required under this DPM structure is less than the annual rate of payment growth for the "buy-down" DPM structure for the first 16 years and is equal to the annual percentage increase for the final four years. This analysis shows that the GOH can reduce both the amount and the length of time for the subsidy offered and still maintain mortgage affordability.

The results of this analysis of DPM financing options strongly suggest that the terms of DPM loans have a significant impact on all parties involved in the transaction. The specific requirements of a DPM program should be analyzed

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carefully before the DPM financing and subsidy arrangements are finalized. The GOH must determine whether its principal objective is to make housing finance affordable to lower income groups even though the cost may be higher or to reduce the cost of meeting the housing finance needs of middle income home buyers.

UNRESOLVED ISSUES OF DPM FINANCING

There are several issues which arise in a DPM type of financing structure which will have to be resolved in order to assure the success of the DPM program. These issues relate to legal considerations, taxation, proper accounting and management of credit risk, liquidity and capital adequacy. All of these issues have reasonable solutions which should make DPM financing acceptable on a sound business, accounting and regulatory basis. However, it is essential that these and other issues which may arise are resolved before the DPM program is introduced.

Legal Issues

As discussed earlier, in a DPM financing, the lender in effect makes additional advances to the borrower periodically to cover the amount of interest capitalized. Another way to look at the DPM is as a line of credit to the borrower in which the maximum amount which can be borrowed is the projected maximum outstanding balance on the loan under conservative assumptions. For example, under the assumptions given for each of the DPM loan structures discussed in this Annex, the maximum outstanding loan balance would be HUF 5.4 million for DPM structure 1, HUF 3.6 million for DPM structure 2 and HUF 3.8 million for DPM structure 3. Therefore, although in each instance the original loan principal amount was HUF 1 million, the total amount of credit extended to a borrower would be HUF 5.3, HUF 3.6, or HUF 3.8 million respectively.

The legal issue which arises is the status of the subsequent "advances" in terms of the priority of lien claim. Legal analysis and a legal opinion may be required to ascertain that regardless of how large the outstanding balance becomes, the entire balance, not just the original loan amount, has the same priority of lien against the property. This is an issue because under most laws governing secured interests in real and personal property, the lien which is filed first has priority over subsequent liens. The general rule in the United States is "first in time is first in right."

In the United States, such "open-ended" mortgage credit is quite common in the form of home equity lines of credit (HEL). In most, if not all, states, the mortgage or trust deed places a lien on the property for the full amount of the HEL, even though only a small portion of the line may actually be advanced. For example, a homeowner with a house valued at \$100,000 and a first mortgage with an

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outstanding balance of \$50,000 could borrow at least another \$25,000 on a HEL. The mortgage or trust deed would encumber the property for the "maximum principal sum" of \$25,000 even if the borrower initially only drew down \$5,000. Therefore, it does not matter when and if the borrower draws down additional advances. All future advances would have the same priority as the first advance.

The law governing secured transactions may not be well developed in Hungary and may not deal adequately with the lien status of subsequent advances under a single mortgage instrument. The lien priority issue may be further complicated by provisions of the Civil Code and the recent Bankruptcy Law which establish the priority of creditor claims. Resolution of this issue is important not only in the rare instances of foreclosure, but whenever a house is sold or a borrower dies.

Tax Treatment

Under Hungarian tax law, the interest which is earned at the contract rate on a DPM is subject to taxation at the corporate tax rate even though the interest has not been collected. Furthermore, the tax law does not allow banks to provision against loans as an expense which reduces taxable income unless the loan is contractually delinquent 90 days or more as of the end of the tax year. Therefore, a DPM lender will have to pay taxes in cash on noncash income earned. This may discourage lenders from making DPM loans.

There does not appear to be any flexibility in interpretation of the tax law. However, there is a provision in the law which authorizes Parliament to waive the payment of taxes. The consensus of opinion is that there is a reasonable prospect that Parliament would grant the waiver for the capitalized portion of interest income on DPM loans since there is a public benefit, namely increasing the affordability of housing. Deferring tax liability until the time when the deferred interest is actually collected would provide greater consistency between the economic nature of the DPM financing structure and the payment of taxes. However, deferring taxes also would reduce government revenues, and, hence the budgetary cost savings resulting from implementation of the DPM.

Proper Accounting and Management of Credit Risk

It is important that DPM loans be accounted for properly on the books of DPM lenders. Proper accounting includes recording of the interest income at the contract rate and expenses associated with funding and servicing the DPM portfolio, including appropriate provisioning, where necessary, to accurately reflect the lender's evaluation of the credit risk in the portfolio. Credit risk involves two components: the risk that a borrower on a DPM loan will be unable to meet his/her payment obligations as the payments escalate and the risk that if the house is sold or

otherwise disposed of or if the loan goes into foreclosure, the net realizable value (NRV) of the home will not be sufficient to pay off the full amount due. The anticipated decrease in the amount of subsidy paid, combined with the escalating loan balance due to interest capitalization, increases the risk of delinquency and default over time as the borrower assumes a larger payment obligation. The borrower's income may not increase at a rate sufficient to maintain a reasonable payment-to-income ratio in the future. As a result, the borrower may not be able to afford the scheduled increased payments and the loan may have to be restructured to avoid default.

The current foreclosure laws and practices in Hungary make it difficult for a lender to realize the value of the collateral securing the loan if the borrower defaults. This issue may be resolved by the establishment of a mortgage insurance fund and, eventually, reform of the mortgage laws to make the mortgage enforceable. However, although the value of the collateral securing the DPM may not be realizable in foreclosure, it will be critical to assuring that the lender will be paid in full if the property is disposed of through sale, inheritance or bankruptcy.

The risk of loss on disposition of the house would not become a serious concern until the ratio between the outstanding balance and the NRV of the home increases significantly. Currently, loan to value ratios at origination are very low and even with interest capitalization, it would be a number of years before the outstanding balance on the loan would exceed the original purchase price of the house. If the availability of DPM financing encourages borrowers to increase the amount of mortgage financing, the risk of inadequate collateral value may become greater.

The basis on which the DPM loans should be underwritten and whether the lender should establish loan loss provisions against its DPM portfolio are important accounting and regulatory issues which should be resolved before the program is introduced. Due to the fact that DPM loans are new and untested instruments, that the capitalization of interest combined with the step-down of the interest rate subsidy results in large increases in the payments required, and that the interest capitalization may increase the loan-to-value ratio, it may be appropriate for DPM lenders to adopt more stringent underwriting criteria and to set up provisions against a DPM portfolio until there is enough history of performance to base provisioning on the experience method.

Loan underwriting which takes the escalation of mortgage payments into account would reduce the need for higher levels of provisioning. DPMs could be underwritten like "teaser" ARMs in the U.S., i.e. the payment to income ratio is applied to the higher payment required in the future as well as the payment in the first year. In other words, the maximum payment to income ratio allowed could be based on, let us say, the third year's payments divided by the borrower's income at

the time he/she applies for the loan. A payment to income ratio based on projected future payments could be higher than the current 33 percent so that affordability is not reduced too severely, say 38 or 40 percent. The minimum income to qualify for a loan would be the greater of the monthly income with a 33 percent first year payment to income ratio or a 38 or 40 percent third year payment to income ratio.

Provisioning for performing DPM loans may not be a regulatory requirement, since the current banking law and the directive on provisioning only require that provisions be established for loans which are contractually delinquent. Since the DPM contract will require interest capitalization, even though interest will not be paid current, the loan will not contractually delinquent. Provisioning for the capitalized interest on DPM loans, at least in the initial years of the loan, would be based primarily on uncertainty about the borrowers' ability to pay potentially much higher mortgage payments in the future.

Determining what is an adequate provision for DPM loans will be difficult, since not only is there no experience in Hungary with DPM financing, there is little experience with market rate mortgages of any type. Generally, the adequacy of provisions is determined by the judgment of the lender, the regulators and the lender's auditors of the risk of future loss in a loan portfolio. Until there have been several years of experience with the ability of borrowers to meet the increased payments required for DPM loans, it may be advisable to provision conservatively, perhaps at rates of 20 to 50 percent of the interest capitalized. A 20 percent provision would be equivalent to the provisioning ratio required under the banking directives for loans classified "substandard". A 50 percent provision would be equivalent to the provisioning ratio required for loans classified "doubtful". Provisioning 100 percent of the capitalized interest is not appropriate since a 100 percent provision means that, in the lender's judgment, the capitalized interest should be classified "bad" and would not be repaid. Unfortunately, under Hungarian tax law, reducing the interest income generated by the DPM by setting up a provision for capitalized interest would not reduce the tax liability of the DPM lender.

Liquidity

Regulatory concerns about the impact of DPM lending on an institution's financial condition center on liquidity, capital and earnings. Because the cash flows from a DPM loan are less than traditional financing structures, the bank may have to utilize other cash resources to meet the cash demands of its depositors and other creditors and to pay cash expenses. The cash flow pressure will not become a serious problem unless the lender does a large volume of DPM loans relative to its other loans and investments. This is highly unlikely for Hungarian banks, including the OTP because current loan to deposit ratios are very low. As discussed previously,

any liquidity problem can be mitigated by appropriate pricing and structuring of the DPM financing

Capital Adequacy

The impact of interest capitalization on a lender's capital and earnings may be a source of greater regulatory concern. The financial projections for the first five years of a HUF 1 million DPM loan applying the interest rate subsidy as additional interest paid indicate that even when 50 percent of the interest capitalized is provisioned, sufficient marginal net profits are generated to provide the capital required to support the loan portfolio.

Another capital adequacy issue relates to dividend payouts on DPM earnings. Accounting income will flow through the profit and loss statement to after tax profits. If the institution has a high dividend payout ratio, it could be paying out cash which it did not receive. For example, if the OTP paid out over 90 percent of its profits in dividends, as it did in 1991, and net income from the DPM accounted for 20 percent of net profit, OTP would have to draw from its cash accounts to make the required dividend payment to make up for the lack of cash profits generated by the DPM. This situation can be avoided if an institution's Board of Directors adopts a dividend policy which requires that the dividend payout ratio be applied only to cash earnings on a DPM. The financial analysis of DPM loan structure options presented in Exhibit 2 assumes a 50 percent dividend payout ratio, based on the net cash available for distribution from a HUF 1 million loan. Net profit attributable to interest capitalization on the DPM portfolio could be retained in a non-distributable capital sub-account until interest is actually received. The negative result of adopting such a dividend policy is that the dividend income received by an institution's shareholders, including the GOH, will be reduced.

SUMMARY AND CONCLUSIONS

In summary, DPM loans can be structured to meet the objectives of reducing GOH subsidies, maintaining affordability and providing a safe, sound, and profitable investment opportunity for financial institutions. In fact, the DPM structure should permit the GOH to phase out interest rate subsidies completely.

The analysis of alternative DPM structures indicates that the subsidy system adopted will have an impact on the total subsidy cost of the DPM program. The GOH can realize relatively greater savings in the subsidy cost if the subsidy is applied to reduce the amount of capitalized interest rather than the amount of the borrower's payment. Of the three DPM structures discussed, it appears that the structure which employs a 10 percent DPM payment rate and applies GOH interest rate

subsidies to reduce the borrower's payment is more costly, less financially viable and involves somewhat greater credit risk for the lender. The other structuring options analyzed would realize larger GOH subsidy reductions, still increase housing finance affordability and be more sound investments for mortgage lenders. Further analysis of financing options should be undertaken before the terms of the DPM loan are set.

The success of the DPM financing scheme will depend on the thoroughness of the planning for its implementation. The legal, accounting, tax and regulatory issues which the DPM financing structure raises appear to have reasonable solutions. However, these issues should be resolved to the satisfaction of all parties involved before the program is launched. This will entail extensive financial analysis under alternative structures and scenarios, drafting of mortgage documents, establishment of policies and procedures, and review and approval by the relevant authorities.

EXHIBIT 1
AFFORDABILITY OF DPM LOANS UNDER
ALTERNATIVE FINANCING STRUCTURES

**ANALYSIS OF MORTGAGE AFFORDABILITY
UNDER CURRENT SUBSIDY STRUCTURE**

<i>Assumptions</i>	
Initial Mortgage Interest Rate	26 00%
Initial Deep Subsidy Rate on first HUF 400,000	70 00%
Initial Shallow Subsidy Rate on Balance of Loan	30 00%
Term to Maturity	240
Maximum initial payment to income ratio	33 00%

Loan Amount	Maximum House Price at Loan-to-Value Ratios of						Initial Mortgage Payment	Initial Subsidy Amount	Initial Borrower Payment	Minimum Initial Borrower Income Required
	25%	30%	35%	40%	50%	60%				
500 000	2 000,000	1 666,667	1,428,571	1 250 000	1 000 000	833 333	10 897	6 756	4 141	12 548
600 000	2,400,000	2 000,000	1 714 286	1,500,000	1,200 000	1,000 000	13 076	7,410	5 666	17 171
700,000	2 800,000	2,333,333	2,000 000	1,750,000	1 400,000	1,166,667	15,256	8 064	7 192	21 794
800,000	3,200,000	2,666,667	2,285,714	2,000,000	1,600,000	1,333 333	17,435	8,718	8,718	26,417
900 000	3 600,000	3 000 000	2,571,429	2,250,000	1 800,000	1,500,000	19,614	9,371	10 243	31 040
1,000 000	4,000,000	3 333,333	2,857,143	2 500 000	2,000,000	1,666 667	21 794	10,025	11,769	35,663
1,100,000	4,400 000	3,666,667	3 142,857	2,750,000	2,200 000	1 833,333	23,973	10 679	13 294	40 285
1,200 000	4 800,000	4,000,000	3,428,571	3 000 000	2,400 000	2,000 000	26 153	11,333	14,820	44,908
1,300,000	5 200,000	4,333 333	3,714,286	3,250,000	2 600,000	2,166 667	28,332	11,987	16,345	49 531
1,400,000	5,600 000	4,666 667	4,000,000	3,500,000	2,800,000	2,333,333	30,511	12,640	17,871	54 154
1,500,000	6,000,000	5 000,000	4,285,714	3 750 000	3,000,000	2,500,000	32,691	13,294	19 396	58 777
1,600,000	6,400 000	5,333 333	4,571 429	4,000,000	3,200,000	2,666,667	34,870	13 948	20 922	63,400
1 700,000	6,800 000	5 666 667	4,857,143	4,250,000	3,400 000	2,833,333	37,049	14,602	22,448	68,023
1,800,000	7 200 000	6 000,000	5,142 857	4,500,000	3 600,000	3,000,000	39 229	15,256	23 973	72 646
1,900,000	7,600,000	6,333,333	5,428,571	4 750,000	3 800,000	3,166,667	41,408	15,909	25 499	77 269
2,000,000	8,000,000	6,666,667	5,714,286	5,000 000	4,000,000	3 333,333	43,588	16,563	27,024	81,892
2,100,000	8,400,000	7 000,000	6 000,000	5 250,000	4,200,000	3,500 000	45,767	17 217	28,550	86,515
2,200 000	8,800,000	7,333 333	6,285 714	5,500 000	4,400,000	3 666,667	47,946	17,871	30 075	91 138
2 300,000	9,200 000	7,666,667	6,571 429	5,750 000	4 600,000	3,833,333	50 126	18 525	31 601	95,760
2 400,000	9,600 000	8,000,000	6,857,143	6,000 000	4 800,000	4,000,000	52 305	19 179	33,127	100,383
2,500,000	10,000,000	8,333 333	7,142 857	6,250 000	5,000 000	4,166,667	54 484	19 832	34 652	105 006
2,600,000	10,400 000	8 666 667	7,428 571	6,500 000	5 200,000	4,333,333	56,664	20 486	36,178	109,629
2,700,000	10,800,000	9,000,000	7 714,286	6,750,000	5,400,000	4 500 000	58,843	21,140	37 703	114 252

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**DPM LOAN AFFORDABILITY ANALYSIS
AT A PAYMENT RATE OF 10% AND A SUBSIDY RATE OF 4%**

<i>Assumptions</i>	
DPM payment rate	10 00%
Subsidy as % interest paid on outstanding loan balance	4 00%
Term to Maturity	240
Maximum initial payment to income ratio	33 00%

Loan Amount	<u>Maximum House Price at Loan-to-Value Ratios of</u>						Initial Payment to Amortize at Payment Rate	Interest Rate Subsidy	Initial Borrower Payment	Minimum Initial Borrower Income Required
	25%	30%	35%	40%	50%	60%				
500 000	2,000 000	1 666,667	1,428 571	1,250 000	1,000,000	833 333	4 825	1,667	3 158	9 571
600,000	2 400,000	2,000,000	1,714,286	1 500,000	1,200,000	1 000 000	5,790	2,000	3 790	11 485
700,000	2,800,000	2,333 333	2 000,000	1,750,000	1,400,000	1 166,667	6,755	2 333	4,422	13,399
800 000	3 200 000	2 666,667	2,285,714	2,000 000	1 600 000	1,333 333	7,720	2 667	5 054	15 314
900,000	3,600,000	3,000 000	2,571 429	2,250,000	1 800,000	1,500,000	8 685	3 000	5 685	17,228
1 000,000	4 000,000	3,333 333	2 857 143	2 500,000	2,000,000	1 666,667	9 650	3,333	6 317	19 142
1,100 000	4,400,000	3 666,667	3,142 857	2 750,000	2 200,000	1 833,333	10 615	3 667	6 949	21,056
1 200,000	4 800,000	4,000 000	3 428,571	3 000 000	2,400,000	2 000,000	11 580	4 000	7 580	22 970
1 300,000	5,200 000	4 333 333	3 714,286	3 250 000	2,600 000	2 166 667	12 545	4,333	8 212	24 885
1,400,000	5,600 000	4,666 667	4 000 000	3,500 000	2,800 000	2,333 333	13 510	4,667	8 844	26,799
1,500,000	6,000 000	5 000,000	4 285 714	3,750 000	3 000,000	2,500 000	14,475	5,000	9 475	28,713
1,600,000	6 400,000	5,333,333	4,571 429	4,000,000	3 200,000	2 666,667	15,440	5,333	10 107	30 627
1 700,000	6 800,000	5,666 667	4 857,143	4,250 000	3,400 000	2,833 333	16,405	5,667	10 739	32 542
1,800 000	7,200 000	6,000,000	5,142,857	4,500,000	3,600,000	3 000,000	17,370	6,000	11,370	34 456
1,900,000	7,600,000	6,333 333	5,428,571	4,750 000	3,800,000	3,166 667	18,335	6 333	12,002	36 370
2,000,000	8 000,000	6 666,667	5,714 286	5 000,000	4,000 000	3,333 333	19,300	6,667	12 634	38 284
2,100,000	8,400,000	7 000,000	6,000,000	5,250,000	4,200 000	3,500 000	20,265	7,000	13,265	40 198
2 200,000	8 800,000	7,333 333	6,285,714	5,500 000	4 400,000	3,666,667	21,230	7,333	13,897	42 113
2,300 000	9 200,000	7 666,667	6,571,429	5,750,000	4,600,000	3 833,333	22 195	7,667	14 529	44,027
2 400,000	9,600 000	8,000 000	6,857 143	6,000,000	4,800 000	4 000 000	23,161	8 000	15 161	45 941
2 500,000	10,000,000	8,333,333	7,142 857	6,250 000	5,000 000	4,166 667	24,126	8 333	15 792	47,855
2,600,000	10,400,000	8 666 667	7,428,571	6 500 000	5 200,000	4 333,333	25,091	8 667	16 424	49 769
2,700 000	10 800,000	9,000 000	7,714 286	6,750 000	5 400,000	4 500 000	26,056	9 000	17 056	51 684

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**DPM LOAN AFFORDABILITY ANALYSIS
AT A PAYMENT RATE OF 12% AND A SUBSIDY RATE OF 4%**

<i>Assumptions</i>	
DPM payment rate	12 00%
Subsidy as % interest paid on outstanding loan balance	4 00%
Term to Maturity	240
Maximum initial payment to income ratio	33 00%

Loan Amount	Maximum House Price at Loan to Value Ratios of						Initial Payment to Amortize at Payment Rate	Interest Rate Subsidy	Initial Borrower Payment	Minimum Initial Borrower Income Required
	25%	30%	35%	40%	50%	60%				
500,000	2,000,000	1,666,667	1,428,571	1,250,000	1,000,000	833,333	5,505	1,667	3,839	11,633
600,000	2,400,000	2,000,000	1,714,286	1,500,000	1,200,000	1,000,000	6,607	2,000	4,607	13,959
700,000	2,800,000	2,333,333	2,000,000	1,750,000	1,400,000	1,166,667	7,708	2,333	5,374	16,286
800,000	3,200,000	2,666,667	2,285,714	2,000,000	1,600,000	1,333,333	8,809	2,667	6,142	18,612
900,000	3,600,000	3,000,000	2,571,429	2,250,000	1,800,000	1,500,000	9,910	3,000	6,910	20,939
1,000,000	4,000,000	3,333,333	2,857,143	2,500,000	2,000,000	1,666,667	11,011	3,333	7,678	23,265
1,100,000	4,400,000	3,666,667	3,142,857	2,750,000	2,200,000	1,833,333	12,112	3,667	8,445	25,592
1,200,000	4,800,000	4,000,000	3,428,571	3,000,000	2,400,000	2,000,000	13,213	4,000	9,213	27,918
1,300,000	5,200,000	4,333,333	3,714,286	3,250,000	2,600,000	2,166,667	14,314	4,333	9,981	30,245
1,400,000	5,600,000	4,666,667	4,000,000	3,500,000	2,800,000	2,333,333	15,415	4,667	10,749	32,571
1,500,000	6,000,000	5,000,000	4,285,714	3,750,000	3,000,000	2,500,000	16,516	5,000	11,516	34,898
1,600,000	6,400,000	5,333,333	4,571,429	4,000,000	3,200,000	2,666,667	17,617	5,333	12,284	37,224
1,700,000	6,800,000	5,666,667	4,857,143	4,250,000	3,400,000	2,833,333	18,718	5,667	13,052	39,551
1,800,000	7,200,000	6,000,000	5,142,857	4,500,000	3,600,000	3,000,000	19,820	6,000	13,820	41,877
1,900,000	7,600,000	6,333,333	5,428,571	4,750,000	3,800,000	3,166,667	20,921	6,333	14,587	44,204
2,000,000	8,000,000	6,666,667	5,714,286	5,000,000	4,000,000	3,333,333	22,022	6,667	15,355	46,530
2,100,000	8,400,000	7,000,000	6,000,000	5,250,000	4,200,000	3,500,000	23,123	7,000	16,123	48,857
2,200,000	8,800,000	7,333,333	6,285,714	5,500,000	4,400,000	3,666,667	24,224	7,333	16,891	51,184
2,300,000	9,200,000	7,666,667	6,571,429	5,750,000	4,600,000	3,833,333	25,325	7,667	17,658	53,510
2,400,000	9,600,000	8,000,000	6,857,143	6,000,000	4,800,000	4,000,000	26,426	8,000	18,426	55,837
2,500,000	10,000,000	8,333,333	7,142,857	6,250,000	5,000,000	4,166,667	27,527	8,333	19,194	58,163
2,600,000	10,400,000	8,666,667	7,428,571	6,500,000	5,200,000	4,333,333	28,628	8,667	19,962	60,490
2,700,000	10,800,000	9,000,000	7,714,286	6,750,000	5,400,000	4,500,000	29,729	9,000	20,729	62,816

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**DPM LOAN AFFORDABILITY ANALYSIS
WITH A BORROWER PAYMENT RATE OF 10% AND A SUBSIDY RATE OF 4%**

<i>Assumptions</i>	
Initial Borrower Payment Rate	10 00%
Initial Subsidy Rate	4 00%
Term to Maturity	240
Maximum initial payment to income ratio	33 00%

Loan Amount	Maximum House Price at Loan-to-Value Ratios of						Initial Interest Rate Subsidy Amount	Initial Payment to Amortize at Borrower Rate	Minimum Initial Borrower Income Required
	25%	30%	35%	40%	50%	60%			
500,000	2,000,000	1 666 667	1,428 571	1,250 000	1 000 000	833 333	1,667	4 825	14 622
600,000	2 400 000	2,000,000	1,714,286	1,500,000	1,200 000	1 000,000	2,000	5,790	17 546
700 000	2 800,000	2 333 333	2 000,000	1 750,000	1,400,000	1,166 667	2 333	6,755	20 470
800,000	3 200,000	2 666,667	2,285,714	2,000,000	1,600,000	1 333,333	2 667	7,720	23 394
900 000	3 600,000	3 000,000	2 571,429	2 250,000	1,800,000	1,500 000	3,000	8 685	26,319
1,000 000	4 000,000	3 333 333	2 857,143	2,500 000	2,000,000	1,666 667	3 333	9 650	29 243
1,100,000	4,400 000	3 666 667	3 142 857	2,750 000	2 200 000	1 833 333	3 667	10 615	32 167
1,200 000	4,800 000	4,000 000	3,428 571	3 000 000	2,400 000	2 000,000	4 000	11,580	35 092
1,300,000	5,200 000	4,333,333	3 714,286	3 250 000	2,600 000	2 166,667	4,333	12,545	38 016
1,400,000	5,600 000	4,666,667	4 000,000	3,500,000	2 800,000	2,333,333	4,667	13,510	40,940
1 500,000	6,000,000	5,000,000	4 285,714	3 750,000	3 000,000	2,500,000	5,000	14 475	43,865
1,600,000	6,400,000	5,333 333	4,571 429	4,000 000	3,200 000	2 666,667	5,333	15 440	46 789
1,700,000	6,800,000	5 666 667	4 857,143	4 250 000	3 400,000	2,833 333	5,667	16,405	49 713
1,800,000	7,200 000	6,000 000	5,142,857	4,500,000	3 600 000	3,000 000	6 000	17 370	52,638
1 900,000	7,600 000	6 333,333	5 428,571	4 750,000	3 800,000	3,166,667	6,333	18,335	55 562
2,000,000	8,000,000	6,666,667	5,714,286	5,000,000	4,000,000	3 333 333	6 667	19,300	58,486
2,100,000	8,400,000	7,000 000	6,000,000	5,250 000	4,200 000	3,500,000	7,000	20 265	61 410
2 200 000	8,800 000	7 333 333	6 285 714	5,500 000	4 400 000	3 666,667	7,333	21 230	64 335
2,300,000	9,200 000	7,666,667	6,571,429	5,750,000	4,600,000	3,833,333	7 667	22,195	67,259
2 400,000	9 600 000	8 000,000	6 857,143	6 000 000	4 800,000	4,000,000	8,000	23 161	70 183
2 500 000	10,000,000	8 333,333	7,142,857	6,250 000	5,000 000	4 166,667	8 333	24 126	73 108
2 600 000	10 400,000	8 666 667	7 428,571	6 500,000	5,200 000	4 333,333	8 667	25,091	76,032
2 700 000	10 800 000	9,000,000	7,714 286	6,750 000	5,400 000	4 500 000	9 000	26 056	78 956

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**DPM LOAN AFFORDABILITY ANALYSIS
WITH A BORROWER PAYMENT RATE OF 10% AND A SUBSIDY RATE OF 5%**

<i>Assumptions</i>	
Initial Borrower Payment Rate	10 00%
Initial Subsidy Rate	5 00%
Term to Maturity	240
Maximum initial payment to income ratio	33 00%

Loan Amount	Maximum House Price at Loan to-Value Ratios of						Initial Interest Rate Subsidy Amount	Initial Payment to Amortize at Borrower Rate	Minimum Initial Borrower Income Required
	25%	30%	35%	40%	50%	60%			
500 000	2,000 000	1,666,667	1 428,571	1 250,000	1 000 000	833,333	2 083	4 825	14 622
600,000	2 400,000	2 000 000	1,714 286	1,500 000	1,200 000	1 000 000	2 500	5,790	17 546
700 000	2 800 000	2,333 333	2 000,000	1 750,000	1,400,000	1 166,667	2 917	6 755	20 470
800 000	3,200,000	2 666,667	2 285 714	2,000 000	1,600 000	1 333 333	3,333	7,720	23 394
900,000	3 600,000	3 000 000	2,571 429	2,250,000	1,800,000	1,500,000	3,750	8 685	26 319
1,000,000	4,000,000	3 333,333	2,857 143	2,500 000	2,000,000	1,666,667	4,167	9 650	29,243
1,100,000	4 400,000	3 666 667	3 142,857	2,750,000	2 200,000	1 833,333	4,583	10,615	32 167
1 200,000	4,800 000	4,000,000	3 428 571	3,000 000	2,400,000	2 000 000	5,000	11 580	35,092
1 300 000	5,200 000	4 333,333	3,714,286	3,250 000	2,600,000	2 166,667	5,417	12 545	38 016
1,400,000	5 600,000	4 666 667	4,000,000	3 500 000	2 800,000	2 333 333	5 833	13 510	40 940
1 500,000	6 000 000	5,000,000	4 285 714	3,750 000	3,000,000	2 500 000	6,250	14 475	43 865
1 600 000	6,400,000	5,333,333	4 571 429	4,000,000	3,200,000	2,666,667	6,667	15,440	46 789
1 700,000	6,800 000	5,666 667	4 857,143	4 250,000	3,400,000	2,833 333	7,083	16 405	49 713
1,800 000	7,200,000	6 000,000	5,142,857	4,500,000	3,600,000	3 000,000	7,500	17,370	52 638
1,900,000	7,600,000	6,333 333	5,428,571	4,750,000	3,800,000	3,166 667	7,917	18 335	55,562
2,000,000	8 000,000	6,666,667	5,714,286	5,000,000	4,000,000	3 333,333	8,333	19,300	58 486
2 100,000	8,400 000	7,000,000	6 000,000	5 250 000	4,200,000	3 500,000	8,750	20,265	61 410
2,200,000	8 800 000	7,333 333	6,285,714	5 500 000	4,400 000	3 666 667	9,167	21 230	64,335
2 300 000	9,200 000	7 666,667	6 571,429	5,750 000	4,600,000	3 833,333	9 583	22,195	67 259
2,400 000	9 600,000	8 000 000	6,857 143	6,000,000	4 800,000	4 000 000	10,000	23,161	70 183
2 500,000	10,000,000	8 333,333	7,142 857	6,250,000	5,000,000	4,166,667	10 417	24,126	73,108
2 600 000	10,400 000	8,666,667	7 428 571	6,500,000	5,200,000	4 333,333	10 833	25 091	76 032
2,700 000	10 800 000	9 000 000	7,714,286	6 750,000	5,400 000	4 500 000	11,250	26,056	78 956

7/24

EXHIBIT 2
FINANCIAL ANALYSIS OF ALTERNATIVE DPM LOAN STRUCTURES
for a HUF 1 Million Loan
at a Contract Interest Rate of 26 Percent

11

**FINANCIAL ANALYSIS OF A DPM LOAN OF HUF 1 MILLION
CONSTANT INTEREST RATE ENVIRONMENT**

ASSUMPTIONS

Loan Amount (in HUF)	1,000,000
DPM Contract Rate	
Years 1-2	26%
Years 3-5	26%
Years 6-10	26%
Years 11-20	26%
DPM Payment Rate	10%
Loan Term in Months	240
GOH Interest Subsidy Rate, Computed Semi-Annually	
Years 1-5	4%
Years 6-10	3%
Years 11-15	1%

Contract Interest Due Computed Monthly
Actual Payment Due Adjusted Semi Annually

MINIMUM MONTHLY INCOME TO AFFORD

1st yr pmt/income of 33%	19 999
1st yr pmt/income of 30%	21,998
1st yr pmt/income of 25%	26 398
3rd yr pmt/income of 38%	24,515
3rd yr pmt/income of 40%	23,289

	Prior Month Ending Balance	(Beg Bal x Annual Cont Rate/12)	(Payment to Amortize Beg Bal over Rem Term)	(Pmt Made or Beg Bal x Contract Rate/12)	(Beg Loan Bal x Subsidy Rate/12)	(Total Pmt Due @ Pmt Rate minus Subsidy)	(Interest Due @ Contract Rate minus Pmt Made)	(Beg Loan Bal + Interest Capitalized - Principal Paid)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
1	1 000 000	21,667	9,650	9 650	3,333	6,317	12,016	1,012,016
2	1,012,016	21,927	9,650	9,650	3,333	6,317	12,277	1,024,293
3	1,024,293	22,193	9,650	9,650	3,333	6,317	12,543	1,036,836
4	1,036,836	22,465	9,650	9,650	3,333	6,317	12,815	1,049,651
5	1 049,651	22,742	9,650	9 650	3,333	6 317	13,092	1,062 743
6	1 062 743	23,026	9,650	9,650	3,333	6,317	13,376	1,076,119
7	1 076,119	23 316	10 469	10,469	3 587	6,882	12,847	1,088,965
8	1,088,965	23,594	10,469	10,469	3,587	6,882	13,125	1,102,090
9	1 102,090	23,879	10,469	10,469	3,587	6,882	13,409	1,115,500
10	1,115 500	24,169	10,469	10,469	3,587	6,882	13,700	1,129,200
11	1 129,200	24 466	10,469	10,469	3,587	6,882	13,997	1,143,196
12	1,143 196	24 769	10 469	10,469	3,587	6,882	14 300	1,157 496
Tot Yr 1	1 000 000	278 213	120,717	120 717	41,522	79,194	157,496	1,157 496
13	1,157,496	25,079	11,358	11,358	3,858	7,500	13,721	1,171,218
14	1,171,218	25,376	11,358	11,358	3,858	7,500	14,018	1,185 236
15	1,185 236	25 680	11 358	11 358	3 858	7,500	14,322	1,199,558
16	1 199,558	25 990	11,358	11,358	3,858	7,500	14,632	1,214,190
17	1,214,190	26,307	11,358	11,358	3,858	7,500	14,949	1,229 140
18	1,229,140	26,631	11,358	11,358	3,858	7,500	15,273	1 244 413
19	1,244,413	26,962	12,323	12,323	4,148	8,175	14,640	1,259,053
20	1 259 053	27,279	12,323	12,323	4,148	8,175	14,957	1,274 010
21	1,274 010	27,604	12,323	12,323	4,148	8,175	15,281	1,289 291
22	1,289,291	27,935	12,323	12 323	4,148	8,175	15,612	1,304,903
23	1,304,903	28 273	12 323	12 323	4,148	8,175	15,950	1,320 853
24	1 320,853	28 618	12,323	12 323	4 148	8,175	16,296	1,337,149
Tot Yr 2	1 157 496	321 736	142,084	142 084	48,038	94 046	179,652	1 337,149

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
25	1,337,149	28,972	13,369	13,369	4,457	8,912	15,602	1,352,751
26	1,352,751	29,310	13,369	13,369	4,457	8,912	15,940	1,368,691
27	1,368,691	29,655	13,369	13,369	4,457	8,912	16,286	1,384,977
28	1,384,977	30,008	13,369	13,369	4,457	8,912	16,638	1,401,615
29	1,401,615	30,368	13,369	13,369	4,457	8,912	16,999	1,418,614
30	1,418,614	30,737	13,369	13,369	4,457	8,912	17,367	1,435,981
31	1,435,981	31,113	14,506	14,506	4,787	9,719	16,607	1,452,589
32	1,452,589	31,473	14,506	14,506	4,787	9,719	16,967	1,469,556
33	1,469,556	31,840	14,506	14,506	4,787	9,719	17,335	1,486,891
34	1,486,891	32,216	14,506	14,506	4,787	9,719	17,710	1,504,601
35	1,504,601	32,600	14,506	14,506	4,787	9,719	18,094	1,522,695
36	1,522,695	32,992	14,506	14,506	4,787	9,719	18,486	1,541,182
Tot Yr 3	1,337,149	371,282	167,250	167,250	55,463	111,787	204,033	1,541,182
37	1,541,182	33,392	15,739	15,739	5,137	10,601	17,654	1,558,835
38	1,558,835	33,775	15,739	15,739	5,137	10,601	18,036	1,576,871
39	1,576,871	34,166	15,739	15,739	5,137	10,601	18,427	1,595,298
40	1,595,298	34,565	15,739	15,739	5,137	10,601	18,826	1,614,124
41	1,614,124	34,973	15,739	15,739	5,137	10,601	19,234	1,633,358
42	1,633,358	35,389	15,739	15,739	5,137	10,601	19,651	1,653,009
43	1,653,009	35,815	17,077	17,077	5,510	11,567	18,738	1,671,747
44	1,671,747	36,221	17,077	17,077	5,510	11,567	19,144	1,690,891
45	1,690,891	36,636	17,077	17,077	5,510	11,567	19,559	1,710,449
46	1,710,449	37,060	17,077	17,077	5,510	11,567	19,982	1,730,432
47	1,730,432	37,493	17,077	17,077	5,510	11,567	20,415	1,750,847
48	1,750,847	37,935	17,077	17,077	5,510	11,567	20,858	1,771,705
Tot Yr 4	1,541,182	427,419	196,896	196,896	63,884	133,012	230,523	1,771,705
49	1,771,705	38,387	18,530	18,530	5,906	12,625	19,857	1,791,562
50	1,791,562	38,817	18,530	18,530	5,906	12,625	20,287	1,811,849
51	1,811,849	39,257	18,530	18,530	5,906	12,625	20,726	1,832,575
52	1,832,575	39,706	18,530	18,530	5,906	12,625	21,175	1,853,750
53	1,853,750	40,165	18,530	18,530	5,906	12,625	21,634	1,875,385
54	1,875,385	40,633	18,530	18,530	5,906	12,625	22,103	1,897,488
55	1,897,488	41,112	20,108	20,108	6,325	13,783	21,005	1,918,492
56	1,918,492	41,567	20,108	20,108	6,325	13,783	21,460	1,939,952
57	1,939,952	42,032	20,108	20,108	6,325	13,783	21,925	1,961,877
58	1,961,877	42,507	20,108	20,108	6,325	13,783	22,400	1,984,276
59	1,984,276	42,993	20,108	20,108	6,325	13,783	22,885	2,007,161
60	2,007,161	43,488	20,108	20,108	6,325	13,783	23,381	2,030,542
Tot Yr 5	1,771,705	490,665	231,828	231,828	73,384	158,444	258,837	2,030,542

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
61	2 030,542	43,995	21,820	21 820	5,076	16,744	22,175	2,052 717
62	2 052,717	44 476	21 820	21 820	5 076	16 744	22 655	2 075 372
63	2 075,372	44 966	21,820	21,820	5,076	16,744	23,146	2,098,518
64	2 098 518	45 468	21 820	21,820	5,076	16 744	23,648	2,122,165
65	2 122 165	45,980	21,820	21,820	5,076	16,744	24 160	2,146,325
66	2,146 325	46,504	21,820	21,820	5 076	16,744	24,683	2,171,009
67	2 171,009	47,039	23 680	23 680	5,428	18,252	23,359	2,194,368
68	2,194 368	47,545	23,680	23 680	5,428	18 252	23,865	2,218,232
69	2,218,232	48,062	23 680	23,680	5,428	18,252	24,382	2,242,614
70	2 242,614	48,590	23 680	23 680	5 428	18,252	24,910	2,267,525
71	2 267 525	49,130	23 680	23 680	5,428	18,252	25 450	2,292 974
72	2 292 974	49 681	23 680	23 680	5 428	18 252	26 001	2 318 976
Tot Yr 6	2 030 542	561 434	273 001	273,001	63 023	209,977	288 434	2 318 976
73	2,318,976	50,244	25 699	25,699	5,797	19 902	24,546	2,343,521
74	2 343,521	50 776	25,699	25 699	5 797	19,902	25,077	2,368 599
75	2,368,599	51 320	25,699	25,699	5,797	19,902	25,621	2,394,219
76	2,394 219	51,875	25,699	25,699	5,797	19,902	26,176	2,420,395
77	2 420,395	52,442	25,699	25,699	5,797	19,902	26,743	2,447,138
78	2 447,138	53,021	25 699	25,699	5,797	19,902	27 322	2,474,460
79	2,474 460	53,613	27,892	27,892	6,186	21,706	25,722	2,500,182
80	2,500,182	54,171	27,892	27,892	6,186	21,706	26 279	2,526 461
81	2 526 461	54,740	27,892	27 892	6,186	21,706	26 848	2,553 309
82	2,553,309	55,322	27 892	27,892	6 186	21,706	27,430	2,580 739
83	2 580 739	55,916	27 892	27,892	6 186	21 706	28 024	2,608 763
84	2 608 763	56 523	27,892	27,892	6 186	21,706	28 631	2 637,395
Tot Yr 7	2 318 976	639 963	321 544	321 544	71 902	249 642	318 419	2,637 395
85	2 637,395	57,144	30 273	30,273	6 593	23,680	26 870	2,664 265
86	2,664,265	57,726	30,273	30,273	6,593	23,680	27,452	2,691,718
87	2 691,718	58,321	30,273	30,273	6,593	23,680	28 047	2,719,765
88	2 719,765	58,928	30,273	30 273	6,593	23,680	28,655	2 748 420
89	2 748 420	59 549	30,273	30,273	6,593	23,680	29,276	2,777,696
90	2,777,696	60,183	30,273	30,273	6,593	23,680	29,910	2,807 606
91	2 807 606	60,831	32 860	32,860	7,019	25,841	27,971	2,835,577
92	2 835,577	61 438	32 860	32 860	7,019	25 841	28,577	2,864 154
93	2 864 154	62 057	32 860	32 860	7 019	25 841	29 196	2 893 351
94	2 893 351	62 689	32 860	32 860	7 019	25 841	29 829	2 923 180
95	2 923 180	63 336	32 860	32 860	7 019	25 841	30 475	2 953 655
96	2 953 655	63 996	32 860	32 860	7 019	25 841	31 136	2 984 791
Tot Yr 8	2 637 395	726 197	378 801	378 801	81 675	297 126	347 396	2 984 791

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
97	2,984,791	64,670	35,671	35,671	7,462	28,209	29,000	3,013,791
98	3,013,791	65,299	35,671	35,671	7,462	28,209	29,628	3,043,419
99	3,043,419	65,941	35,671	35,671	7,462	28,209	30,270	3,073,689
100	3,073,689	66,597	35,671	35,671	7,462	28,209	30,926	3,104,615
101	3,104,615	67,267	35,671	35,671	7,462	28,209	31,596	3,136,211
102	3,136,211	67,951	35,671	35,671	7,462	28,209	32,281	3,168,492
103	3,168,492	68,651	38,724	38,724	7,921	30,803	29,926	3,198,418
104	3,198,418	69,299	38,724	38,724	7,921	30,803	30,575	3,228,993
105	3,228,993	69,962	38,724	38,724	7,921	30,803	31,237	3,260,231
106	3,260,231	70,638	38,724	38,724	7,921	30,803	31,914	3,292,145
107	3,292,145	71,330	38,724	38,724	7,921	30,803	32,606	3,324,750
108	3,324,750	72,036	38,724	38,724	7,921	30,803	33,312	3,358,062
Tot Yr 9	2,984,791	819,640	446,368	446,368	92,299	354,069	373,272	3,358,062
109	3,358,062	72,758	42,043	42,043	8,395	33,647	30,715	3,388,778
110	3,388,778	73,424	42,043	42,043	8,395	33,647	31,381	3,420,159
111	3,420,159	74,103	42,043	42,043	8,395	33,647	32,061	3,452,220
112	3,452,220	74,798	42,043	42,043	8,395	33,647	32,756	3,484,975
113	3,484,975	75,508	42,043	42,043	8,395	33,647	33,465	3,518,441
114	3,518,441	76,233	42,043	42,043	8,395	33,647	34,190	3,552,631
115	3,552,631	76,974	45,649	45,649	8,882	36,768	31,324	3,583,955
116	3,583,955	77,652	45,649	45,649	8,882	36,768	32,003	3,615,958
117	3,615,958	78,346	45,649	45,649	8,882	36,768	32,696	3,648,655
118	3,648,655	79,054	45,649	45,649	8,882	36,768	33,405	3,682,060
119	3,682,060	79,778	45,649	45,649	8,882	36,768	34,129	3,716,188
120	3,716,188	80,517	45,649	45,649	8,882	36,768	34,868	3,751,056
Tot Yr 10	3,358,062	919,145	526,151	526,151	103,660	422,491	392,994	3,751,056
121	3,751,056	81,273	49,570	49,570	3,126	46,445	31,702	3,782,759
122	3,782,759	81,960	49,570	49,570	3,126	46,445	32,389	3,815,148
123	3,815,148	82,662	49,570	49,570	3,126	46,445	33,091	3,848,239
124	3,848,239	83,379	49,570	49,570	3,126	46,445	33,808	3,882,047
125	3,882,047	84,111	49,570	49,570	3,126	46,445	34,541	3,916,588
126	3,916,588	84,859	49,570	49,570	3,126	46,445	35,289	3,951,877
127	3,951,877	85,624	53,834	53,834	3,293	50,541	31,790	3,983,666
128	3,983,666	86,313	53,834	53,834	3,293	50,541	32,478	4,016,145
129	4,016,145	87,016	53,834	53,834	3,293	50,541	33,182	4,049,327
130	4,049,327	87,735	53,834	53,834	3,293	50,541	33,901	4,083,228
131	4,083,228	88,470	53,834	53,834	3,293	50,541	34,636	4,117,863
132	4,117,863	89,220	53,834	53,834	3,293	50,541	35,386	4,153,249
Tot Yr 11	3,751,056	1,022,622	620,429	620,429	38,515	581,915	402,193	4,153,249

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
133	4,153,249	89,987	58,472	58,472	3,461	55,011	31,515	4,184,764
134	4,184,764	90,670	58,472	58,472	3,461	55,011	32,198	4,216,962
135	4,216,962	91,368	58,472	58,472	3,461	55,011	32,895	4,249,857
136	4,249,857	92,080	58,472	58,472	3,461	55,011	33,608	4,283,465
137	4,283,465	92,808	58,472	58,472	3,461	55,011	34,336	4,317,801
138	4,317,801	93,552	58,472	58,472	3,461	55,011	35,080	4,352,881
139	4,352,881	94,312	63,519	63,519	3,627	59,891	30,794	4,383,675
140	4,383,675	94,980	63,519	63,519	3,627	59,891	31,461	4,415,136
141	4,415,136	95,661	63,519	63,519	3,627	59,891	32,143	4,447,278
142	4,447,278	96,358	63,519	63,519	3,627	59,891	32,839	4,480,118
143	4,480,118	97,069	63,519	63,519	3,627	59,891	33,551	4,513,668
144	4,513,668	97,796	63,519	63,519	3,627	59,891	34,278	4,547,946
Tot Yr 12	4,513,668	1,126,642	731,945	731,945	21,764	689,415	394,697	4,547,946
145	4,547,946	98,539	69,011	69,011	3,790	65,221	29,528	4,577,473
146	4,577,473	99,179	69,011	69,011	3,790	65,221	30,167	4,607,641
147	4,607,641	99,832	69,011	69,011	3,790	65,221	30,821	4,638,461
148	4,638,461	100,500	69,011	69,011	3,790	65,221	31,489	4,669,950
149	4,669,950	101,182	69,011	69,011	3,790	65,221	32,171	4,702,121
150	4,702,121	101,879	69,011	69,011	3,790	65,221	32,868	4,734,989
151	4,734,989	102,591	74,992	74,992	3,946	71,047	27,599	4,762,588
152	4,762,588	103,189	74,992	74,992	3,946	71,047	28,197	4,790,785
153	4,790,785	103,800	74,992	74,992	3,946	71,047	28,808	4,819,593
154	4,819,593	104,425	74,992	74,992	3,946	71,047	29,432	4,849,025
155	4,849,025	105,062	74,992	74,992	3,946	71,047	30,070	4,879,095
156	4,879,095	105,714	74,992	74,992	3,946	71,047	30,721	4,909,816
Tot Yr 13	4,879,095	1,225,893	864,022	864,022	46,415	817,607	361,871	4,909,816
157	4,909,816	106,379	81,509	81,509	4,092	77,417	24,871	4,934,687
158	4,934,687	106,918	81,509	81,509	4,092	77,417	25,409	4,960,096
159	4,960,096	107,469	81,509	81,509	4,092	77,417	25,960	4,986,056
160	4,986,056	108,031	81,509	81,509	4,092	77,417	26,522	5,012,579
161	5,012,579	108,606	81,509	81,509	4,092	77,417	27,097	5,039,676
162	5,039,676	109,193	81,509	81,509	4,092	77,417	27,684	5,067,360
163	5,067,360	109,793	88,613	88,613	4,223	84,390	21,180	5,088,540
164	5,088,540	110,252	88,613	88,613	4,223	84,390	21,639	5,110,180
165	5,110,180	110,721	88,613	88,613	4,223	84,390	22,108	5,132,288
166	5,132,288	111,200	88,613	88,613	4,223	84,390	22,587	5,154,874
167	5,154,874	111,689	88,613	88,613	4,223	84,390	23,076	5,177,951
168	5,177,951	112,189	88,613	88,613	4,223	84,390	23,576	5,201,527
Tot Yr 14	5,177,951	1,312,439	1,020,728	1,020,728	49,886	970,842	291,711	5,201,527

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
169	5,201,527	112,700	96,363	96,363	4,335	92,028	16,337	5,217,864
170	5,217,864	113,054	96,363	96,363	4,335	92,028	16,691	5,234,555
171	5,234,555	113,415	96,363	96,363	4,335	92,028	17,053	5,251,608
172	5,251,608	113,785	96,363	96,363	4,335	92,028	17,422	5,269,030
173	5,269,030	114,162	96,363	96,363	4,335	92,028	17,800	5,286,830
174	5,286,830	114,548	96,363	96,363	4,335	92,028	18,185	5,305,015
175	5,305,015	114,942	104,826	104,826	4,421	100,405	10,116	5,315,132
176	5,315,132	115,161	104,826	104,826	4,421	100,405	10,336	5,325,467
177	5,325,467	115,385	104,826	104,826	4,421	100,405	10,560	5,336,027
178	5,336,027	115,614	104,826	104,826	4,421	100,405	10,788	5,346,815
179	5,346,815	115,848	104,826	104,826	4,421	100,405	11,022	5,357,838
180	5,357,838	116,086	104,826	104,826	4,421	100,405	11,261	5,369,099
Tot Yr 15	5,201,527	1,374,700	1,207,129	1,207,129	52,533	1,154,596	167,571	5,369,099
181	5,369,099	116,330	114,077	114,077	0	114,077	2,253	5,371,352
182	5,371,352	116,379	114,077	114,077	0	114,077	2,302	5,373,653
183	5,373,653	116,429	114,077	114,077	0	114,077	2,352	5,376,005
184	5,376,005	116,480	114,077	114,077	0	114,077	2,403	5,378,408
185	5,378,408	116,532	114,077	114,077	0	114,077	2,455	5,380,862
186	5,380,862	116,585	114,077	114,077	0	114,077	2,508	5,383,370
187	5,383,370	116,640	124,207	116,640	0	124,207	(7,568)	5,375,803
188	5,375,803	116,476	124,207	116,476	0	124,207	(7,732)	5,368,071
189	5,368,071	116,308	124,207	116,308	0	124,207	(7,899)	5,360,172
190	5,360,172	116,137	124,207	116,137	0	124,207	(8,070)	5,352,102
191	5,352,102	115,962	124,207	115,962	0	124,207	(8,245)	5,343,857
192	5,343,857	115,784	124,207	115,784	0	124,207	(8,424)	5,335,433
Tot Yr 16	5,369,099	1,396,043	1,429,709	1,381,771	0	1,429,709	(33,666)	5,335,433
193	5,335,433	115,601	135,320	115,601	0	135,320	(19,719)	5,315,714
194	5,315,714	115,174	135,320	115,174	0	135,320	(20,147)	5,295,567
195	5,295,567	114,737	135,320	114,737	0	135,320	(20,583)	5,274,984
196	5,274,984	114,291	135,320	114,291	0	135,320	(21,029)	5,253,955
197	5,253,955	113,836	135,320	113,836	0	135,320	(21,485)	5,232,470
198	5,232,470	113,370	135,320	113,370	0	135,320	(21,950)	5,210,520
199	5,210,520	112,895	147,545	112,895	0	147,545	(34,651)	5,175,869
200	5,175,869	112,144	147,545	112,144	0	147,545	(35,402)	5,140,468
201	5,140,468	111,377	147,545	111,377	0	147,545	(36,169)	5,104,299
202	5,104,299	110,593	147,545	110,593	0	147,545	(36,952)	5,067,347
203	5,067,347	109,793	147,545	109,793	0	147,545	(37,753)	5,029,594
204	5,029,594	108,975	147,545	108,975	0	147,545	(38,571)	4,991,023
Tot Yr 17	5,335,433	1,352,785	1,697,194	1,352,785	0	1,697,194	(344,410)	4,991,023

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ 4%/3%/1% Interest on Beg Loan Bal	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
205	4 991 023	108,139	161 046	108,139	0	161,046	(52,907)	4 938,116
206	4,938,116	106,993	161,046	106,993	0	161,046	(54,054)	4,884 062
207	4,884,062	105,821	161,046	105 821	0	161,046	(55,225)	4,828 837
208	4,828,837	104,625	161,046	104 625	0	161,046	(56,421)	4,772,416
209	4 772,416	103,402	161,046	103 402	0	161,046	(57,644)	4,714,772
210	4,714,772	102,153	161,046	102 153	0	161,046	(58,893)	4,655 879
211	4,655,879	100,877	176 045	100,877	0	176,045	(75 168)	4 580 711
212	4,580,711	99,249	176 045	99,249	0	176 045	(76,797)	4,503 914
213	4,503 914	97,585	176,045	97,585	0	176 045	(78,461)	4,425 454
214	4 425 454	95,885	176 045	95 885	0	176 045	(80 161)	4 345 293
215	4 345 293	94 148	176 045	94 148	0	176 045	(81 897)	4,263 396
216	4 263,396	92,374	176 045	92 374	0	176,045	(83,672)	4,179 724
Tot Yr 18	4,991 023	1 211,251	2,022 550	1 211 251	0	2,022,550	(811,299)	4 179 724
217	4,179,724	90,561	192 873	90 561	0	192,873	(102,312)	4,077 412
218	4 077,412	88,344	192 873	88,344	0	192,873	(104,529)	3,972 883
219	3,972,883	86 079	192 873	86,079	0	192,873	(106 794)	3,866,089
220	3 866 089	83,765	192,873	83,765	0	192,873	(109,108)	3,756,981
221	3,756,981	81,401	192,873	81,401	0	192,873	(111,472)	3,645 509
222	3,645,509	78,986	192,873	78,986	0	192,873	(113,887)	3,531,622
223	3,531 622	76,518	212 099	76 518	0	212,099	(135,580)	3,396,042
224	3,396 042	73,581	212 099	73 581	0	212,099	(138,518)	3,257,524
225	3,257,524	70,580	212 099	70,580	0	212,099	(141 519)	3 116,004
226	3,116,004	67,513	212,099	67,513	0	212,099	(144,585)	2,971 419
227	2,971,419	64 381	212,099	64 381	0	212,099	(147 718)	2 823,701
228	2 823 701	61 180	212 099	61,180	0	212,099	(150 919)	2,672 782
Tot Yr 19	4,179 724	922 890	2 429 832	922 890	0	2 429 832	(1 506 942)	2,672 782
229	2,672 782	57,910	234 980	57 910	0	234 980	(177 070)	2 495 712
230	2 495 712	54,074	234 980	54 074	0	234,980	(180,906)	2 314 806
231	2,314,806	50,154	234 980	50 154	0	234,980	(184,826)	2,129 980
232	2,129,980	46,150	234 980	46,150	0	234,980	(188,830)	1,941 150
233	1,941 150	42 058	234 980	42 058	0	234 980	(192 922)	1 748 228
234	1,748 228	37,878	234 980	37 878	0	234,980	(197,102)	1 551,126
235	1,551,126	33,608	266,113	33 608	0	266,113	(232 506)	1 318 621
236	1 318 621	28 570	266 113	28 570	0	266,113	(237,543)	1,081 077
237	1,081,077	23,423	266 113	23,423	0	266 113	(242 690)	838 387
238	838,387	18 165	266 113	18,165	0	266,113	(247 948)	590 439
239	590 439	12,793	266,113	12,793	0	266 113	(253,321)	337,118
240	337,118	7,304	266,113	7,304	0	266,113	(258,809)	78 309
241	78 309	1 697	80 006	1 697	0	80 006	(78 309)	0
Tot Yr 20	2,495 712	355 874	2 851 586	355 874	0	2 851 586	(2,495 712)	0

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FINANCIAL PROJECTIONS FOR DPM LOANS

ASSUMPTIONS

Deposits to Fund Initial Loan Amount	920 000	Annual Provision as % of Interest	
Wtd Ave Cost of Deposits	13 00%	Capitalized	20 00%
HG Loan Funds 4% of Loan	40 000	Tax Rate	40 00%
HG Onlending Rate	19 00%	General Provision as %	1 25%
Servicing Fee as % of		of Increase in DPM Loan Balance	
Average Loan Balance	1 00%	50% of Interest Paid on Deposits	
Marginal DPM Administrative Costs		is paid out in cash the balance	
as a % of Interest Income	5 00%	is retained in deposit accounts	

INCOME STATEMENT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Interest Income Collected - Borrower	79,194	94 046	111 787	133,012	158,444
Interest Income Collected Subsidy	41 522	48 038	55 463	63,884	73 384
Interest Income Earned but not Collected	157 496	179 652	204 033	230 523	258 837
Total Interest Income	278 213	321 736	371 282	427 419	490 665
Interest Expense - Deposits	119 600	127 374	135 653	144,471	153 861
Interest Expense - HG Loan	7 600	7 600	7 600	7 600	7 600
Net Interest Income	151 013	186 762	228,029	275 348	329 204
Servicing Income	10 768	12 451	14 367	16,537	18 982
Administrative Expense	13,911	16 087	18,564	21 371	24 533
Net Income Before Provision	147,870	183 126	223 832	270,515	323 652
Provision for Capitalized Interest	31,499	35 930	40,807	46,105	51,767
Net Income Before Tax	116 371	147 196	183,026	224 410	271 885
Taxes	59,148	73 251	89 533	108,206	129 461
Net Income After Tax	57 223	73 945	93 493	116,204	142 424
General Reserve	1 969	2 246	2 550	2 882	2,882
Income Available for Distribution	0	0	0	4,021	12,285
Dividends Paid @ 50%	0	0	0	0	0
To Profit/Loss in Balance Sheet	55,254	71 700	90 942	113,323	139 542

BALANCE SHEET

Assets

Cash		(8,974)	(15 064)	(16 971)	(12 950)	(664)
Total DPM Loans Outstanding	1 000 000	1 157 496	1 337 149	1 541 182	1 771 705	2 030 542
Total Assets	1 000,000	1,148 522	1 322 085	1 524 211	1 758 755	2 029 877

Liabilities

Short Term Deposits	920 000	979 800	1 043 487	1 111 314	1 183 549	1 260 480
Provision For Capitalized Interest	0	31 499	67 430	108 236	154 341	206 108
Long Term Subordinated HG Loan	40 000	40 000	40 000	40 000	40 000	40 000
Capital Reserves	40 000	40 000	40,000	40 000	40 000	40 000
Revenue Reserve			55 254	126 954	217,896	331 219
Profit/Loss in the Balance Sheet		55 254	71 700	90 942	113,323	139 542
General Reserve		1,969	4 214	6 765	9 646	12 528
Total Liabilities and Capital	1,000 000	1 148 522	1 322 085	1,524 211	1 758 755	2 029 877
Total Adjusted Capital	80 000	137 223	211 168	304 661	420 865	563 289
Capital Adequacy Ratio	8 00%	11 86%	15 79%	19 77%	23 75%	27 74%

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FINANCIAL PROJECTIONS FOR DPM LOANS

ASSUMPTIONS

Deposits to Fund Initial Loan Amount	920 000	Annual Provision as % of Interest	
Wtd Ave Cost of Deposits	13 00%	Capitalized	50 00%
HG Loan Funds 4% of Loan	40 000	Tax Rate	40 00%
HG Onlending Rate	19 00%	General Provision as %	1 25%
Servicing Fee as % of		of Increase in DPM Loan Balance	
Average Loan Balance	1 00%	50% of Interest Paid on Deposits	
Marginal DPM Administrative Costs		is paid out in cash the balance	
as a % of Interest Income	5 00%	is retained in deposit accounts	

INCOME STATEMENT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Interest Income Collected Borrower	79 194	94 046	111 787	133,012	158 444
Interest Income Collected - Subsidy	41,522	48 038	55 463	63 884	73 384
Interest Income Earned but not Collected	157 496	179 652	204 033	230 523	258 837
Total Interest Income	278 213	321 736	371 282	427 419	490 665
Interest Expense Deposits	119 600	127 374	135 653	144 471	153 861
Interest Expense - HG Loan	7 600	7 600	7 600	7,600	7 600
Net Interest Income	151 013	186 762	228 029	275,348	329 204
Servicing Income	10,768	12 451	14 367	16,537	18,982
Administrative Expense	13,911	16 087	18 564	21 371	24,533
Net Income Before Provision	147 870	183 126	223 832	270 515	323 652
Provision for Capitalized Interest	78 748	89 826	102 016	115 262	129 418
Net Income Before Tax	69,122	93 300	121 816	155 253	194 234
Taxes	59,148	73 251	89 533	108,206	129 461
Net Income After Tax	9,974	20 050	32,283	47,047	64 773
General Reserve	1,969	2 246	2 550	2,882	2 882
Income Available for Distribution	0	0	0	4,021	12 285
Dividends Paid @ 50%	0	0	0	0	0
To Profit/Loss in Balance Sheet	8,005	17 804	29,732	44 166	61 891

BALANCE SHEET

Assets

Cash		(8,974)	(15 064)	(16 971)	(12 950)	(664)
Total DPM Loans Outstanding	1 000 000	1 157 496	1 337 149	1 541 182	1 771 705	2 030 542
Total Assets	1,000 000	1 148 522	1 322 085	1 524 211	1 758 755	2 029 877

Liabilities

Short Term Deposits	920 000	979 800	1 043 487	1 111 314	1 183,549	1 260 480
Provision For Capitalized Interest	0	78,748	168,574	270 591	385,853	515 271
Long Term Subordinated HG Loan	40,000	40,000	40,000	40 000	40 000	40 000
Capital Reserves	40 000	40 000	40 000	40 000	40 000	40 000
Revenue Reserve			8 005	25 809	55 542	99,708
Profit/Loss in the Balance Sheet		8,005	17 804	29 732	44,166	61 891
General Reserve		1 969	4 214	6 765	9 646	12 528
Total Liabilities and Capital	1 000 000	1,148 522	1 322 085	1 524,211	1 758 755	2,029 877
Total Adjusted Capital	80 000	89 974	110 024	142 307	189 354	254 127
Capital Adequacy Ratio	8 00%	7 77%	8 23%	9 23%	10 69%	12 52%

STATEMENT OF CHANGES IN CASH POSITION FOR DPM LOANS

	Year 1	Year 2	Year 3	Year 4	Year 5
<u>CASH GENERATED BY</u>					
Borrower Payment	79,194	94,046	111,787	133,012	158,444
GOH Subsidy Payment	41,522	48,038	55,463	63,884	73,384
Servicing Fee	10,768	12,451	14,367	16,537	18,982
TOTAL SOURCES OF CASH	131,485	154,535	181,617	213,433	250,810
<u>CASH USED BY</u>					
Payment of Interest on Deposits (@ 50% of Interest Due)	59,800	63,687	67,827	72,235	76,931
Payment of Interest on HG Loan	7,600	7,600	7,600	7,600	7,600
Administrative Expense	13,911	16,087	18,564	21,371	24,533
Taxes	59,148	73,251	89,533	108,206	129,461
Dividends	0	0	0	0	0
TOTAL USES OF CASH	140,459	160,624	183,524	209,412	238,525
NET INCREASE OR (DECREASE) IN CASH	(8,974)	(6,089)	(1,907)	4,021	12,285

DPM STRUCTURE 2
Borrower Rate of 10 Percent
Interest Rate Subsidy of
4%/3%/1%
Over Fifteen Years

**FINANCIAL ANALYSIS OF A DPM LOAN OF HUF 1 MILLION
CONSTANT INTEREST RATE ENVIRONMENT**

ASSUMPTIONS

Loan Amount (in HUF)	1,000,000
DPM Contract Rate	
Years 1-2	26%
Years 3-5	26%
Years 6-10	26%
Years 11-20	26%
Borrower Payment Rate	10%
Loan Term in Months	240
GOH Interest Subsidy Rate, Computed Semi-Annually	
Years 1-5	4%
Years 6-10	3%
Years 11 15	1%

Contract Interest Due Computed Monthly
Actual Payment Due Adjusted Semi Annually

MINIMUM MONTHLY INCOME TO AFFORD

1st yr pmt/income of 33%	30 173
1st yr pmt/income of 30%	33 190
1st yr pmt/income of 25%	39,828
3rd yr pmt/income of 38%	33,534
3rd yr pmt/income of 40%	31,857

	Prior Month Ending Balance	(Beg Bal x Contract Rate/12)	(Borrower Payment + Subsidy Payment)	(Pmt Made or Beg Bal x Contract Rate/12)	(Beg Loan Bal x Subsidy Rate/12)	(Payment to Amortize at Borrower Rate)	(Interest Due @ Contract Rate minus Pmt Made)	(Beg Loan Bal + Interest Capitalized - Principal Paid)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment @ Payment Rate	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
1	1,000,000	21,667	12,984	12,984	3,333	9,650	8,683	1 008,683
2	1 008,683	21,855	12,984	12,984	3,333	9,650	8,871	1,017,554
3	1 017 554	22 047	12,984	12,984	3,333	9,650	9,063	1,026,618
4	1,026,618	22,243	12,984	12,984	3,333	9,650	9,260	1,035,878
5	1,035,878	22 444	12,984	12 984	3,333	9 650	9,460	1 045,338
6	1 045 338	22 649	12,984	12,984	3,333	9,650	9,665	1 055,004
7	1 055 004	22,858	13,780	13,780	3,517	10,264	9,078	1 064 081
8	1 064 081	23 055	13,780	13 780	3,517	10 264	9,275	1 073 356
9	1 073 356	23,256	13,780	13,780	3,517	10,264	9,476	1,082,832
10	1 082 832	23 461	13 780	13 780	3,517	10 264	9,681	1 092 512
11	1 092 512	23 671	13,780	13,780	3,517	10,264	9 891	1 102 403
12	1,102 403	23 885	13,780	13 780	3,517	10 264	10,105	1,112 508
Tot. Yr 1	1,000 000	273 092	160 584	160 584	41 100	119,484	112,508	1 112 508
13	1,112,508	24,104	14,625	14,625	3,708	10,917	9,479	1,121,987
14	1,121,987	24,310	14,625	14,625	3,708	10,917	9,685	1,131,672
15	1,131,672	24,520	14,625	14,625	3,708	10,917	9,895	1 141,567
16	1,141 567	24,734	14 625	14 625	3 708	10,917	10,109	1 151,676
17	1 151,676	24,953	14,625	14,625	3,708	10,917	10,328	1,162,004
18	1,162,004	25,177	14,625	14 625	3,708	10,917	10,552	1,172,556
19	1,172,556	25,405	15,520	15,520	3,909	11,611	9 886	1,182,441
20	1,182,441	25,620	15,520	15 520	3,909	11,611	10,100	1,192,541
21	1,192,541	25 838	15 520	15,520	3,909	11,611	10 319	1,202 860
22	1,202,860	26,062	15,520	15,520	3,909	11,611	10,542	1,213,403
23	1 213 403	26 290	15,520	15 520	3,909	11,611	10,771	1,224 174
24	1 224 174	26 524	15 520	15 520	3 909	11 611	11 004	1,235 178
Tot Yr 2	1 112 508	303 537	180 867	180 867	45 701	135 166	122 670	1 235 178

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment @ Payment Rate	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
25	1 235,178	26 762	16 467	16 467	4,117	12 350	10 295	1 245,473
26	1,245,473	26,985	16,467	16,467	4,117	12,350	10,518	1 255,991
27	1,255 991	27,213	16,467	16,467	4 117	12,350	10 746	1 266 737
28	1,266,737	27,446	16 467	16 467	4 117	12,350	10,979	1,277 716
29	1,277,716	27,684	16 467	16,467	4,117	12,350	11,217	1,288,933
30	1,288,933	27 927	16,467	16,467	4,117	12,350	11,460	1,300,392
31	1,300,392	28,175	17 471	17,471	4,335	13,136	10,705	1,311,097
32	1 311,097	28,407	17,471	17,471	4,335	13 136	10,937	1,322 034
33	1,322,034	28,644	17,471	17,471	4,335	13 136	11 174	1,333,207
34	1,333 207	28,886	17 471	17 471	4 335	13,136	11,416	1 344,623
35	1,344 623	29 133	17,471	17,471	4,335	13,136	11 663	1 356,286
36	1,356,286	29 386	17,471	17 471	4 335	13 136	11 916	1 368 201
Tot Yr 3	1 235,178	336 649	203 626	203,626	50 711	152 914	133,024	1,368 201
37	1,368,201	29 644	18,533	18,533	4,561	13 972	11,111	1 379 313
38	1,379,313	29,885	18 533	18 533	4 561	13,972	11 352	1,390 665
39	1,390,665	30 131	18,533	18,533	4,561	13,972	11,598	1 402 263
40	1 402,263	30 382	18,533	18 533	4,561	13,972	11 849	1,414,113
41	1,414,113	30 639	18 533	18,533	4,561	13,972	12 106	1 426,219
42	1,426,219	30 901	18,533	18,533	4 561	13 972	12 369	1 438,588
43	1,438,588	31 169	19,657	19,657	4,795	14 862	11,512	1,450,100
44	1,450,100	31,419	19 657	19,657	4,795	14,862	11,761	1 461,861
45	1 461,861	31,674	19 657	19,657	4 795	14,862	12 016	1 473,877
46	1,473,877	31,934	19,657	19,657	4,795	14 862	12 277	1 486 154
47	1,486,154	32 200	19,657	19,657	4 795	14 862	12,543	1 498 697
48	1,498 697	32,472	19,657	19,657	4,795	14,862	12,814	1 511 511
Tot Yr 4	1 368,201	372 451	229 141	229 141	56 136	173 006	143 310	1 511 511
49	1,511,511	32,749	20,847	20,847	5,038	15 809	11 902	1 523 413
50	1,523,413	33,007	20,847	20,847	5,038	15,809	12 160	1 535,573
51	1,535,573	33,271	20,847	20,847	5,038	15,809	12,423	1,547,997
52	1,547,997	33,540	20,847	20,847	5,038	15,809	12,693	1,560,689
53	1,560,689	33,815	20,847	20,847	5 038	15,809	12,968	1 573,657
54	1,573,657	34 096	20,847	20 847	5,038	15,809	13 249	1 586 905
55	1 586,905	34,383	22,106	22 106	5,290	16,816	12 277	1 599,182
56	1,599,182	34,649	22,106	22,106	5 290	16,816	12,543	1,611 725
57	1,611 725	34,921	22,106	22,106	5 290	16 816	12 815	1 624,540
58	1,624,540	35,198	22,106	22,106	5,290	16,816	13,092	1 637,632
59	1,637,632	35,482	22,106	22,106	5,290	16,816	13,376	1 651,008
60	1 651,008	35 772	22 106	22 106	5 290	16,816	13,666	1 664 673
Tot Yr 5	1 511,511	410 883	257,721	257,721	61 968	195,752	153 162	1 664 673

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
61	1,664,673	36,068	22,050	22,050	4,162	17,889	14,018	1,678,691
62	1,678,691	36,372	22,050	22,050	4,162	17,889	14,321	1,693,012
63	1,693,012	36,682	22,050	22,050	4,162	17,889	14,632	1,707,644
64	1,707,644	36,999	22,050	22,050	4,162	17,889	14,949	1,722,592
65	1,722,592	37,323	22,050	22,050	4,162	17,889	15,272	1,737,865
66	1,737,865	37,654	22,050	22,050	4,162	17,889	15,603	1,753,468
67	1,753,468	37,992	23,509	23,509	4,384	19,126	14,483	1,767,951
68	1,767,951	38,306	23,509	23,509	4,384	19,126	14,796	1,782,747
69	1,782,747	38,626	23,509	23,509	4,384	19,126	15,117	1,797,864
70	1,797,864	38,954	23,509	23,509	4,384	19,126	15,444	1,813,309
71	1,813,309	39,288	23,509	23,509	4,384	19,126	15,779	1,829,088
72	1,829,088	39,630	23,509	23,509	4,384	19,126	16,121	1,845,209
Tot Yr 6	1,664,673	453,893	273,357	273,357	51,272	222,085	180,535	1,845,209
73	1,845,209	39,980	25,062	25,062	4,613	20,449	14,918	1,860,127
74	1,860,127	40,303	25,062	25,062	4,613	20,449	15,241	1,875,368
75	1,875,368	40,633	25,062	25,062	4,613	20,449	15,571	1,890,939
76	1,890,939	40,970	25,062	25,062	4,613	20,449	15,909	1,906,848
77	1,906,848	41,315	25,062	25,062	4,613	20,449	16,253	1,923,101
78	1,923,101	41,667	25,062	25,062	4,613	20,449	16,606	1,939,707
79	1,939,707	42,027	26,713	26,713	4,849	21,864	15,314	1,955,020
80	1,955,020	42,359	26,713	26,713	4,849	21,864	15,645	1,970,666
81	1,970,666	42,698	26,713	26,713	4,849	21,864	15,984	1,986,650
82	1,986,650	43,044	26,713	26,713	4,849	21,864	16,331	2,002,981
83	2,002,981	43,398	26,713	26,713	4,849	21,864	16,685	2,019,665
84	2,019,665	43,759	26,713	26,713	4,849	21,864	17,046	2,036,711
Tot Yr 7	1,845,209	502,153	310,650	310,650	56,774	253,876	191,503	2,036,711
85	2,036,711	44,129	28,470	28,470	5,092	23,378	15,659	2,052,370
86	2,052,370	44,468	28,470	28,470	5,092	23,378	15,998	2,068,368
87	2,068,368	44,815	28,470	28,470	5,092	23,378	16,345	2,084,712
88	2,084,712	45,169	28,470	28,470	5,092	23,378	16,699	2,101,411
89	2,101,411	45,531	28,470	28,470	5,092	23,378	17,060	2,118,472
90	2,118,472	45,900	28,470	28,470	5,092	23,378	17,430	2,135,902
91	2,135,902	46,278	30,338	30,338	5,340	24,999	15,940	2,151,841
92	2,151,841	46,623	30,338	30,338	5,340	24,999	16,285	2,168,126
93	2,168,126	46,976	30,338	30,338	5,340	24,999	16,638	2,184,764
94	2,184,764	47,337	30,338	30,338	5,340	24,999	16,998	2,201,762
95	2,201,762	47,705	30,338	30,338	5,340	24,999	17,366	2,219,128
96	2,219,128	48,081	30,338	30,338	5,340	24,999	17,743	2,236,871
Tot Yr 8	2,036,711	553,011	352,851	352,851	62,589	290,262	200,160	2,236,871

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Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
97	2 236 871	48 466	32 325	32 325	5 592	26 732	16,141	2 253 012
98	2 253 012	48,815	32 325	32 325	5 592	26,732	16 491	2 269,503
99	2,269,503	49,173	32,325	32,325	5,592	26,732	16,848	2,286,351
100	2,286,351	49,538	32,325	32,325	5,592	26,732	17,213	2,303,564
101	2,303,564	49,911	32,325	32,325	5,592	26,732	17,586	2,321,150
102	2,321,150	50,292	32,325	32 325	5 592	26 732	17,967	2,339,117
103	2,339,117	50 681	34,436	34 436	5,848	28,588	16,245	2,355 362
104	2,355 362	51,033	34,436	34,436	5 848	28 588	16 597	2 371 960
105	2,371 960	51,392	34 436	34 436	5 848	28 588	16 957	2,388 916
106	2 388 916	51,760	34 436	34 436	5 848	28 588	17 324	2,406,241
107	2 406 241	52 135	34 436	34 436	5,848	28 588	17 700	2 423,940
108	2 423 940	52 519	34 436	34 436	5,848	28 588	18,083	2,442 023
Tot Yr 9	2,236 871	605 713	400,561	400,561	68 640	331 921	205,152	2,442 023
109	2,442 023	52 911	36 679	36 679	6 105	30 574	16,232	2 458,255
110	2,458,255	53 262	36 679	36,679	6,105	30,574	16,583	2,474,838
111	2,474,838	53,621	36,679	36 679	6,105	30,574	16 943	2,491,781
112	2,491,781	53,989	36,679	36,679	6,105	30,574	17 310	2 509 090
113	2 509 090	54,364	36 679	36,679	6 105	30,574	17,685	2 526 775
114	2,526,775	54,747	36,679	36,679	6 105	30 574	18,068	2,544 843
115	2,544 843	55,138	39,062	39,062	6,362	32,700	16,076	2 560,919
116	2,560,919	55,487	39,062	39,062	6,362	32,700	16,425	2,577 344
117	2,577 344	55 842	39,062	39 062	6,362	32,700	16 781	2 594,125
118	2,594,125	56,206	39 062	39 062	6 362	32,700	17,144	2,611 269
119	2 611 269	56,577	39,062	39 062	6,362	32,700	17,516	2,628 784
120	2 628 784	56 957	39,062	39 062	6 362	32 700	17,895	2 646 679
Tot Yr 10	2 442 023	659 101	454 445	454 445	74 803	379 642	204 656	2 646 679
121	2,646,679	57,345	37 182	37 182	2 206	34 976	20,163	2,666 842
122	2,666 842	57,782	37,182	37,182	2,206	34,976	20,600	2,687 442
123	2 687 442	58,228	37 182	37,182	2 206	34 976	21 046	2,708,489
124	2,708,489	58 684	37,182	37,182	2 206	34 976	21 502	2 729 991
125	2,729 991	59,150	37,182	37 182	2,206	34,976	21 968	2,751 959
126	2,751,959	59,626	37,182	37,182	2 206	34,976	22,444	2,774 403
127	2,774 403	60,112	40,106	40,106	2 312	37 794	20,006	2,794,409
128	2,794 409	60,546	40,106	40,106	2 312	37 794	20 439	2,814 848
129	2 814 848	60,988	40,106	40 106	2,312	37 794	20,882	2,835,730
130	2,835 730	61,441	40,106	40,106	2,312	37,794	21,335	2,857,065
131	2,857,065	61,903	40,106	40,106	2,312	37,794	21,797	2,878,862
132	2 878,862	62,375	40,106	40 106	2,312	37,794	22,269	2,901,131
Tot Yr 11	2 646 679	718 179	463 727	463 727	27 105	436 622	254 452	2,901,131

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Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
133	2,901,131	62,858	43,262	43,262	2,418	40,844	19,596	2,920,727
134	2,920,727	63,282	43,262	43,262	2,418	40,844	20,021	2,940,748
135	2,940,748	63,716	43,262	43,262	2,418	40,844	20,454	2,961,202
136	2,961,202	64,159	43,262	43,262	2,418	40,844	20,898	2,982,100
137	2,982,100	64,612	43,262	43,262	2,418	40,844	21,350	3,003,450
138	3,003,450	65,075	43,262	43,262	2,418	40,844	21,813	3,025,263
139	3,025,263	65,547	46,667	46,667	2,521	44,146	18,881	3,044,144
140	3,044,144	65,956	46,667	46,667	2,521	44,146	19,290	3,063,434
141	3,063,434	66,374	46,667	46,667	2,521	44,146	19,708	3,083,142
142	3,083,142	66,801	46,667	46,667	2,521	44,146	20,135	3,103,276
143	3,103,276	67,238	46,667	46,667	2,521	44,146	20,571	3,123,847
144	3,123,847	67,683	46,667	46,667	2,521	44,146	21,017	3,144,864
Tot Yr 12	2,901,131	783,303	539,570	539,570	29,632	509,938	243,733	3,144,864
145	3,144,864	68,139	50,341	50,341	2,621	47,721	17,797	3,162,661
146	3,162,661	68,524	50,341	50,341	2,621	47,721	18,183	3,180,844
147	3,180,844	68,918	50,341	50,341	2,621	47,721	18,577	3,199,421
148	3,199,421	69,321	50,341	50,341	2,621	47,721	18,979	3,218,401
149	3,218,401	69,732	50,341	50,341	2,621	47,721	19,391	3,237,791
150	3,237,791	70,152	50,341	50,341	2,621	47,721	19,811	3,257,602
151	3,257,602	70,581	54,308	54,308	2,715	51,594	16,273	3,273,875
152	3,273,875	70,934	54,308	54,308	2,715	51,594	16,626	3,290,501
153	3,290,501	71,294	54,308	54,308	2,715	51,594	16,986	3,307,487
154	3,307,487	71,662	54,308	54,308	2,715	51,594	17,354	3,324,840
155	3,324,840	72,038	54,308	54,308	2,715	51,594	17,730	3,342,570
156	3,342,570	72,422	54,308	54,308	2,715	51,594	18,114	3,360,684
Tot Yr 13	3,144,864	843,719	627,898	627,898	32,012	595,886	215,820	3,360,684
157	3,360,684	72,815	58,592	58,592	2,801	55,791	14,223	3,374,907
158	3,374,907	73,123	58,592	58,592	2,801	55,791	14,531	3,389,438
159	3,389,438	73,438	58,592	58,592	2,801	55,791	14,846	3,404,284
160	3,404,284	73,759	58,592	58,592	2,801	55,791	15,168	3,419,452
161	3,419,452	74,088	58,592	58,592	2,801	55,791	15,496	3,434,948
162	3,434,948	74,424	58,592	58,592	2,801	55,791	15,832	3,450,780
163	3,450,780	74,767	63,219	63,219	2,876	60,344	11,548	3,462,328
164	3,462,328	75,017	63,219	63,219	2,876	60,344	11,798	3,474,126
165	3,474,126	75,273	63,219	63,219	2,876	60,344	12,054	3,486,179
166	3,486,179	75,534	63,219	63,219	2,876	60,344	12,315	3,498,494
167	3,498,494	75,801	63,219	63,219	2,876	60,344	12,581	3,511,075
168	3,511,075	76,073	63,219	63,219	2,876	60,344	12,854	3,523,929
Tot Yr 14	3,360,684	894,112	730,867	730,867	34,057	696,809	163,245	3,523,929

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Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
169	3 523,929	76,352	65 284	65 284	2,937	62,347	11,068	3 534,997
170	3,534 997	76,592	65,284	65,284	2,937	62,347	11 308	3 546 305
171	3 546 305	76,837	65 284	65,284	2,937	62 347	11,553	3 557 858
172	3,557,858	77,087	65,284	65 284	2,937	62 347	11 803	3 569 661
173	3,569 661	77,343	65,284	65,284	2 937	62,347	12 059	3 581,720
174	3,581,720	77,604	65,284	65,284	2,937	62,347	12,320	3,594 040
175	3 594,040	77,871	71,017	71,017	2,995	68 022	6,854	3 600,894
176	3,600,894	78,019	71 017	71 017	2,995	68,022	7,002	3 607 896
177	3,607 896	78,171	71,017	71 017	2 995	68,022	7,154	3 615,050
178	3,615 050	78,326	71 017	71 017	2 995	68,022	7 309	3 622,359
179	3,622 359	78,484	71 017	71,017	2 995	68 022	7,467	3 629,826
180	3,629,826	78 646	71 017	71,017	2,995	68 022	7 629	3 637 456
Tot Yr 15	3,523,929	931 332	817 805	817,805	35,590	782 216	113 526	3 637 456
181	3,637,456	78,812	77,285	77 285	0	77 285	1,526	3 638,982
182	3,638,982	78,845	77,285	77,285	0	77,285	1 559	3,640 541
183	3,640,541	78,878	77,285	77,285	0	77,285	1,593	3,642,135
184	3 642,135	78,913	77,285	77,285	0	77,285	1,628	3,643,762
185	3,643,762	78,948	77,285	77,285	0	77 285	1,663	3,645,425
186	3,645,425	78,984	77,285	77,285	0	77,285	1 699	3,647,124
187	3 647 124	79,021	84 148	79 021	0	84 148	(5,127)	3 641 997
188	3,641 997	78 910	84 148	78 910	0	84 148	(5,238)	3 636 759
189	3,636,759	78,796	84,148	78 796	0	84 148	(5,351)	3 631 408
190	3,631 408	78,681	84,148	78,681	0	84,148	(5,467)	3,625,941
191	3 625 941	78,562	84 148	78 562	0	84 148	(5,586)	3 620 355
192	3,620 355	78 441	84 148	78 441	0	84 148	(5 707)	3 614 648
Tot Yr 16	3 637 456	945 791	968 599	936 122	0	968 599	(22,808)	3 614 648
193	3,614,648	78,317	91,677	78,317	0	91,677	(13,359)	3,601 288
194	3,601,288	78,028	91,677	78,028	0	91,677	(13,649)	3,587,639
195	3,587,639	77,732	91,677	77,732	0	91,677	(13,945)	3,573 695
196	3,573,695	77,430	91,677	77,430	0	91,677	(14,247)	3 559 448
197	3 559 448	77,121	91,677	77,121	0	91,677	(14,555)	3 544 893
198	3 544 893	76 806	91,677	76 806	0	91 677	(14,871)	3 530 022
199	3,530,022	76,484	99 959	76,484	0	99 959	(23 475)	3 506 547
200	3,506 547	75 975	99,959	75,975	0	99,959	(23,984)	3,482 563
201	3,482 563	75,456	99,959	75 456	0	99,959	(24 503)	3 458,059
202	3,458,059	74,925	99,959	74 925	0	99,959	(25,034)	3 433 025
203	3 433 025	74 382	99 959	74,382	0	99 959	(25,577)	3 407,448
204	3,407,448	73,828	99,959	73,828	0	99,959	(26,131)	3,381,317
Tot Yr 17	3,614,648	916,484	1,149 815	916 484	0	1 149 815	(233,330)	3 381 317

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
205	3 381 317	73 262	109 106	73,262	0	109 106	(35 844)	3 345 474
206	3 345,474	72,485	109,106	72,485	0	109,106	(36,620)	3,308,853
207	3,308,853	71,692	109,106	71,692	0	109,106	(37 414)	3 271 439
208	3,271 439	70,881	109,106	70,881	0	109,106	(38,224)	3,233,215
209	3,233,215	70,053	109,106	70,053	0	109,106	(39,053)	3,194,162
210	3 194,162	69,207	109,106	69,207	0	109,106	(39,899)	3,154 264
211	3,154 264	68,342	119 267	68,342	0	119,267	(50,925)	3 103,339
212	3 103 339	67,239	119 267	67,239	0	119,267	(52,028)	3,051,311
213	3,051 311	66 112	119,267	66 112	0	119 267	(53,155)	2 998 155
214	2 998,155	64 960	119 267	64 960	0	119 267	(54,307)	2 943 848
215	2 943,848	63,783	119 267	63 783	0	119 267	(55 484)	2,888,364
216	2 888 364	62,581	119 267	62 581	0	119 267	(56 686)	2 831 678
Tot Yr 18	3 381 317	820,598	1 370 237	820 598	0	1 370 237	(549 639)	2 831 678
217	2,831,678	61,353	130,668	61,353	0	130,668	(69,315)	2,762 364
218	2,762,364	59,851	130,668	59,851	0	130 668	(70,816)	2,691 548
219	2 691,548	58,317	130,668	58,317	0	130,668	(72,351)	2,619 197
220	2,619,197	56,749	130,668	56,749	0	130,668	(73,918)	2,545 278
221	2,545,278	55,148	130 668	55,148	0	130,668	(75,520)	2,469,759
222	2,469,759	53,511	130,668	53,511	0	130,668	(77,156)	2,392,602
223	2,392,602	51,840	143 693	51,840	0	143,693	(91,853)	2,300,749
224	2,300 749	49,850	143,693	49 850	0	143 693	(93,843)	2,206 906
225	2,206,906	47,816	143,693	47,816	0	143 693	(95,876)	2 111,030
226	2 111,030	45 739	143 693	45,739	0	143,693	(97 954)	2,013,076
227	2,013 076	43 617	143,693	43,617	0	143,693	(100,076)	1 913 000
228	1 913 000	41 448	143 693	41 448	0	143 693	(102 244)	1 810 756
Tot Yr 19	2 831 678	625,239	1,646 162	625 239	0	1,646 162	(1 020,923)	1 810 756
229	1 810 756	39 233	159 194	39,233	0	159 194	(119,961)	1,690,795
230	1 690,795	36,634	159,194	36,634	0	159,194	(122,560)	1,568 234
231	1 568,234	33,978	159,194	33,978	0	159,194	(125 216)	1 443,018
232	1 443,018	31 265	159,194	31 265	0	159,194	(127 929)	1,315,090
233	1 315,090	28,494	159,194	28,494	0	159 194	(130,701)	1,184,389
234	1,184 389	25 662	159 194	25 662	0	159,194	(133 532)	1 050 857
235	1 050 857	22,769	180 286	22,769	0	180 286	(157 518)	893 339
236	893 339	19,356	180,286	19 356	0	180 286	(160 931)	732 408
237	732 408	15,869	180,286	15,869	0	180,286	(164,418)	567,990
238	567,990	12 306	180,286	12,306	0	180,286	(167 980)	400,010
239	400 010	8,667	180,286	8,667	0	180,286	(171,620)	228,391
240	228 391	4,948	180,286	4,948	0	180 286	(175 338)	53 053
241	53 053	1,149	54 202	1 149	0	54,202	(53 053)	0
Tot Yr 20	1 690 795	241 097	1,931 892	241 097	0	1 931 892	(1 690 795)	0

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FINANCIAL PROJECTIONS FOR DPM LOANS

ASSUMPTIONS

Deposits to Fund Initial Loan Amount	920 000	Annual Provision as % of Interest	
Wtd Ave Cost of Deposits	13 00%	Capitalized	20 00%
HG Loan Funds 4% of Loan	40 000	Tax Rate	40 00%
HG Onlending Rate	19 00%	General Provision as %	1 25%
Servicing Fee as % of		of Increase in DPM Loan Balance	
Average Loan Balance	1 00%	50% of Interest Paid on Deposits	
Marginal DPM Administrative Costs		is paid out in cash, the balance	
as a % of Interest Income	5 00%	is retained in deposit accounts	

INCOME STATEMENT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Interest Income Collected - Borrower	119 484	135,166	152,914	173 006	195,752
Interest Income Collected - Subsidy	41 100	45,701	50 711	56 136	61 968
Interest Income Earned but not Collected	112,508	122 670	133,024	143 310	153 162
Total Interest Income	273 092	303 537	336,649	372 451	410 883
Interest Expense - Deposits	119 600	127,374	135,653	144 471	153 861
Interest Expense - HG Loan	7 600	7 600	7 600	7 600	7 600
Net Interest Income	145,892	168 563	193,396	220 380	249,422
Servicing Income	10,551	11,727	13,005	14,386	15,868
Administrative Expense	13,655	15,177	16,832	18 623	20,544
Net Income Before Provision	142,789	165,113	189,568	216,144	244,746
Provision for Capitalized Interest	22,502	24,534	26,605	28,662	30,632
Net Income Before Tax	120,287	140,579	162,963	187,482	214 113
Taxes	57,116	66,045	75,827	86,457	97,898
Net Income After Tax	63,172	74 534	87,136	101,024	116,215
General Reserve	1,406	1,533	1,663	1,791	1,915
Income Available for Distribution	32,965	40 085	48,544	58,612	70,616
Dividends Paid @ 50%	16,483	20 042	24,272	29,306	35,308
To Profit/Loss in Balance Sheet	45,283	52 958	61,201	69 927	78 992

BALANCE SHEET

Assets

Cash		16,483	36 525	60,797	90,103	125 411
Total DPM Loans Outstanding	1,000,000	1,112,508	1,235,178	1,368,201	1,511 511	1 664,673
Total Assets	1,000,000	1,128,991	1 271,703	1,428,998	1 601,614	1,790,084

Liabilities

Short Term Deposits	920,000	979,800	1 043 487	1 111 314	1,183,549	1,260 480
Provision For Capitalized Interest	0	22 502	47,036	73 640	102,302	132 935
Long Term Subordinated HG Loan	40,000	40,000	40,000	40,000	40,000	40,000
Capital Reserves	40,000	40,000	40,000	40,000	40,000	40,000
Revenue Reserve			45,283	98,241	159,442	229,369
Profit/Loss in the Balance Sheet		45,283	52,958	61,201	69,927	78,992
General Reserve		1,406	2,940	4,603	6,394	8,308
Total Liabilities and Capital	1,000,000	1,128,991	1 271,703	1,428,998	1,601,614	1,790,084
Total Adjusted Capital	80,000	126,689	181,180	244,045	315,763	396,670
Capital Adequacy Ratio	8 00%	11 39%	14 67%	17 84%	20 89%	23 83%

FINANCIAL PROJECTIONS FOR DPM LOANS

ASSUMPTIONS

Deposits to Fund Initial Loan Amount	920,000	Annual Provision as % of Interest	
Mtd Ave Cost of Deposits	13.00%	Capitalized	50.00%
HG Loan Funds 4% of Loan	40,000	Tax Rate	40.00%
HG Onlending Rate	19.00%	General Provision as %	1.25%
Servicing Fee as % of		of Increase in DPM Loan Balance	
Average Loan Balance	1.00%	50% of Interest Paid on Deposits	
Marginal DPM Administrative Costs		is paid out in cash, the balance	
as a % of Interest Income	5.00%	is retained in deposit accounts	

INCOME STATEMENT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Interest Income Collected - Borrower	119,484	135,166	152,914	173,006	195,752
Interest Income Collected - Subsidy	41,100	45,701	50,711	56,136	61,968
Interest Income Earned, but not Collected	112,508	122,670	133,024	143,310	153,162
Total Interest Income	273,092	303,537	336,649	372,451	410,883
Interest Expense - Deposits	119,600	127,374	135,653	144,471	153,861
Interest Expense - HG Loan	7,600	7,600	7,600	7,600	7,600
Net Interest Income	145,892	168,563	193,396	220,380	249,422
Servicing Income	10,551	11,727	13,005	14,386	15,868
Administrative Expense	13,655	15,177	16,832	18,623	20,544
Net Income Before Provision	142,789	165,113	189,568	216,144	244,746
Provision for Capitalized Interest	56,254	61,335	66,512	71,655	76,581
Net Income Before Tax	86,535	103,778	123,056	144,489	168,164
Taxes	57,116	66,045	75,827	86,457	97,898
Net Income After Tax	29,419	37,733	47,229	58,031	70,266
General Reserve	1,406	1,533	1,663	1,791	1,915
Income Available for Distribution	32,965	40,085	48,544	58,612	70,616
Dividends Paid @ 50%	16,483	20,042	24,272	29,306	35,308
Net Profit/Loss in Balance Sheet	11,530	16,157	21,294	26,934	33,044

BALANCE SHEET

Assets

Cash		16,483	36,525	60,797	90,103	125,411
Total DPM Loans Outstanding	1,000,000	1,112,508	1,235,178	1,368,201	1,511,511	1,664,673
Total Assets	1,000,000	1,128,991	1,271,703	1,428,998	1,601,614	1,790,084

Liabilities

Short Term Deposits	920,000	979,800	1,043,487	1,111,314	1,183,549	1,260,480
Provision For Capitalized Interest	0	56,254	117,589	184,101	255,755	332,337
Long Term Subordinated HG Loan	40,000	40,000	40,000	40,000	40,000	40,000
Capital Reserves	40,000	40,000	40,000	40,000	40,000	40,000
Revenue Reserve			11,530	27,687	48,982	75,916
Profit/Loss in the Balance Sheet		11,530	16,157	21,294	26,934	33,044
General Reserve		1,406	2,940	4,603	6,394	8,308
Total Liabilities and Capital	1,000,000	1,128,991	1,271,703	1,428,998	1,601,614	1,790,084
Total Adjusted Capital	80,000	92,937	110,627	133,584	162,309	197,268
Capital Adequacy Ratio	8.00%	8.35%	8.96%	9.76%	10.74%	11.85%

STATEMENT OF CHANGES IN CASH POSITION FOR DPM LOANS

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
<u>CASH GENERATED BY</u>					
Borrower Payment	119,484	135,166	152,914	173,006	195,752
GOH Subsidy Payment	41,100	45,701	50,711	56,136	61,968
Servicing Fee	10,551	11,727	13,005	14,386	15,868
TOTAL SOURCES OF CASH	171,136	192,594	216,630	243,527	273,589
<u>CASH USED BY</u>					
Payment of Interest on Deposits (@ 50% of Interest Due)	59,800	63,687	67,827	72,235	76,931
Payment of Interest on HG Loan	7,600	7,600	7,600	7,600	7,600
Administrative Expense	13,655	15,177	16,832	18,623	20,544
Taxes	57,116	66,045	75,827	86,457	97,898
Dividends	16,483	20,042	24,272	29,306	35,308
TOTAL USES OF CASH	154,653	172,551	192,358	214,221	238,281
NET INCREASE OR (DECREASE) IN CASH	16,483	20,042	24,272	29,306	35,308

DPM STRUCTURE 3

Borrower Rate of 10 Percent

Interest Rate Subsidy of

5% in Years 1 to 4

4% in Years 5 to 7

2% in Years 8 to 10

FINANCIAL ANALYSIS OF A DPM LOAN OF HUF 1 MILLION CONSTANT INTEREST RATE ENVIRONMENT

ASSUMPTIONS

Loan Amount (in HUF)	1 000,000
DPM Contract Rate	
Years 1-2	26%
Years 3-5	26%
Years 6-10	26%
Years 11-20	26%
Borrower Payment Rate	10%
Loan Term in Months	240
GOH Interest Subsidy Rate, Computed Semi-Annually	
Years 1-4	5%
Years 5-7	3%
Years 8-10	2%

Contract Interest Due Computed Monthly
Actual Payment Due Adjusted Semi-Annually

MINIMUM MONTHLY INCOME TO AFFORD

1st yr pmt/income of 33%	30 095
1st yr pmt/income of 30%	33,104
1st yr pmt/income of 25%	39 725
3rd yr pmt/income of 38%	32 782
3rd yr pmt/income of 40%	31,143

	Prior Month Ending Balance	(Beg Bal x Contract Rate/12)	(Borrower Payment + Subsidy Payment)	(Pmt Made or Beg Bal x Contract Rate/12)	(Beg Loan Bal x Subsidy Rate/12)	(Payment to Amortize at Borrower Rate)	(Interest Due @ Contract Rate minus Pmt Made)	(Beg Loan Bal + Interest Capitalized Principal Paid)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment @ Payment Rate	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
1	1,000 000	21 667	13 817	13,817	4 167	9 650	7,850	1,007,850
2	1,007,850	21,837	13,817	13,817	4,167	9,650	8,020	1,015 870
3	1,015,870	22,011	13,817	13,817	4,167	9,650	8,194	1,024 063
4	1 024,063	22,188	13,817	13,817	4 167	9,650	8,371	1,032,434
5	1,032,434	22,369	13,817	13 817	4,167	9,650	8,553	1 040 987
6	1,040 987	22,555	13 817	13,817	4,167	9 650	8 738	1 049 725
7	1,049 725	22 744	14,586	14,586	4 374	10 212	8,158	1 057 883
8	1 057,883	22,921	14,586	14 586	4 374	10,212	8 334	1,066,217
9	1 066 217	23,101	14,586	14,586	4,374	10,212	8 515	1,074 732
10	1,074 732	23,286	14 586	14,586	4 374	10 212	8,700	1,083 432
11	1,083 432	23 474	14 586	14,586	4 374	10,212	8,888	1,092 320
12	1 092,320	23 667	14,586	14 586	4,374	10,212	9,081	1 101 400
Tot Yr 1	1 000 000	271 819	170 419	170 419	51 243	119,176	101 400	1 101 400
13	1,101,400	23,864	15,397	15,397	4,589	10,808	8,467	1,109 867
14	1,109 867	24,047	15,397	15,397	4 589	10,808	8,650	1,118,518
15	1 118,518	24 235	15,397	15,397	4,589	10,808	8 838	1 127 355
16	1 127 355	24 426	15 397	15 397	4 589	10 808	9 029	1 136 385
17	1 136 385	24,622	15,397	15 397	4,589	10,808	9,225	1 145 609
18	1,145,609	24,822	15,397	15 397	4,589	10,808	9 425	1,155 034
19	1,155,034	25,026	16,250	16,250	4,813	11,438	8,776	1,163 810
20	1,163,810	25,216	16,250	16,250	4,813	11,438	8,966	1,172,776
21	1,172,776	25,410	16,250	16,250	4,813	11,438	9,160	1,181,936
22	1,181,936	25,609	16,250	16,250	4 813	11,438	9,358	1,191,294
23	1 191 294	25,811	16,250	16,250	4,813	11 438	9,561	1,200,855
24	1,200 855	26,019	16 250	16 250	4 813	11,438	9,768	1 210,623
Tot Yr 2	1 101 400	299,105	189 882	189 882	56 411	133 471	109,223	1,210 623

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment @ Payment Rate	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
25	1,210,623	26,230	17,149	17,149	5,044	12,104	9,082	1,219,705
26	1,219,705	26,427	17,149	17,149	5,044	12,104	9,278	1,228,983
27	1,228,983	26,628	17,149	17,149	5,044	12,104	9,479	1,238,463
28	1,238,463	26,833	17,149	17,149	5,044	12,104	9,685	1,248,148
29	1,248,148	27,043	17,149	17,149	5,044	12,104	9,895	1,258,042
30	1,258,042	27,258	17,149	17,149	5,044	12,104	10,109	1,268,151
31	1,268,151	27,477	18,094	18,094	5,284	12,810	9,382	1,277,534
32	1,277,534	27,680	18,094	18,094	5,284	12,810	9,586	1,287,119
33	1,287,119	27,888	18,094	18,094	5,284	12,810	9,793	1,296,913
34	1,296,913	28,100	18,094	18,094	5,284	12,810	10,006	1,306,918
35	1,306,918	28,317	18,094	18,094	5,284	12,810	10,222	1,317,141
36	1,317,141	28,538	18,094	18,094	5,284	12,810	10,444	1,327,585
Tot. Yr 3	1,210,623	328,418	211,457	211,457	61,969	149,487	116,961	1,327,585
37	1,327,585	28,764	19,089	19,089	5,532	13,557	9,675	1,337,260
38	1,337,260	28,974	19,089	19,089	5,532	13,557	9,885	1,347,145
39	1,347,145	29,188	19,089	19,089	5,532	13,557	10,099	1,357,244
40	1,357,244	29,407	19,089	19,089	5,532	13,557	10,318	1,367,562
41	1,367,562	29,631	19,089	19,089	5,532	13,557	10,541	1,378,103
42	1,378,103	29,859	19,089	19,089	5,532	13,557	10,770	1,388,873
43	1,388,873	30,092	20,135	20,135	5,787	14,348	9,957	1,398,830
44	1,398,830	30,308	20,135	20,135	5,787	14,348	10,173	1,409,002
45	1,409,002	30,528	20,135	20,135	5,787	14,348	10,393	1,419,395
46	1,419,395	30,754	20,135	20,135	5,787	14,348	10,618	1,430,014
47	1,430,014	30,984	20,135	20,135	5,787	14,348	10,848	1,440,862
48	1,440,862	31,219	20,135	20,135	5,787	14,348	11,083	1,451,945
Tot Yr 4	1,327,585	359,707	235,347	235,347	67,911	167,435	124,360	1,451,945
49	1,451,945	31,459	18,816	18,816	3,630	15,186	12,643	1,464,588
50	1,464,588	31,733	18,816	18,816	3,630	15,186	12,917	1,477,505
51	1,477,505	32,013	18,816	18,816	3,630	15,186	13,197	1,490,702
52	1,490,702	32,299	18,816	18,816	3,630	15,186	13,483	1,504,185
53	1,504,185	32,591	18,816	18,816	3,630	15,186	13,775	1,517,959
54	1,517,959	32,889	18,816	18,816	3,630	15,186	14,073	1,532,033
55	1,532,033	33,194	20,065	20,065	3,830	16,235	13,129	1,545,162
56	1,545,162	33,479	20,065	20,065	3,830	16,235	13,413	1,558,575
57	1,558,575	33,769	20,065	20,065	3,830	16,235	13,704	1,572,279
58	1,572,279	34,066	20,065	20,065	3,830	16,235	14,001	1,586,280
59	1,586,280	34,369	20,065	20,065	3,830	16,235	14,304	1,600,585
60	1,600,585	34,679	20,065	20,065	3,830	16,235	14,614	1,615,199
Tot Yr 5	1,451,945	396,539	233,285	233,285	44,760	188,525	163,254	1,615,199

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
61	1 615,199	34,996	21 395	21 395	4,038	17,357	13,601	1 628 800
62	1,628 800	35,291	21 395	21,395	4 038	17 357	13 896	1,642 695
63	1,642,695	35,592	21,395	21,395	4,038	17,357	14,197	1,656 892
64	1,656,892	35,899	21,395	21,395	4,038	17,357	14,504	1,671,396
65	1,671,396	36,214	21,395	21,395	4,038	17,357	14,819	1,686,215
66	1,686,215	36,535	21,395	21,395	4,038	17,357	15,140	1,701,355
67	1,701,355	36,863	22 811	22,811	4,253	18,557	14,052	1,715,407
68	1,715,407	37,167	22,811	22,811	4,253	18,557	14,357	1,729,763
69	1,729,763	37,478	22,811	22,811	4,253	18,557	14,668	1,744,431
70	1,744 431	37,796	22 811	22,811	4,253	18,557	14 985	1 759 417
71	1 759,417	38 121	22 811	22 811	4,253	18,557	15,310	1 774 727
72	1 774 727	38 452	22 811	22 811	4 253	18 557	15 642	1 790 369
Tot Yr 6	1 615 199	440 403	265 233	265 233	49 748	215 485	175 170	1 790 369
73	1,790 369	38,791	24,317	24,317	4,476	19,841	14 474	1,804,843
74	1,804,843	39,105	24,317	24 317	4,476	19,841	14 788	1,819,631
75	1,819 631	39 425	24,317	24,317	4,476	19,841	15,109	1,834 740
76	1,834,740	39,753	24,317	24,317	4,476	19,841	15,436	1,850 176
77	1,850,176	40,087	24,317	24,317	4,476	19 841	15,770	1,865,946
78	1,865,946	40,429	24,317	24,317	4,476	19,841	16,112	1,882,058
79	1,882,058	40,778	25,919	25,919	4,705	21,214	14,859	1 896,916
80	1,896 916	41,100	25,919	25,919	4,705	21,214	15,180	1,912,097
81	1,912,097	41,429	25,919	25,919	4,705	21,214	15,509	1,927,606
82	1,927 606	41 765	25 919	25,919	4,705	21,214	15,845	1,943 452
83	1,943 452	42 108	25 919	25 919	4,705	21,214	16,189	1,959 640
84	1 959 640	42,459	25 919	25 919	4,705	21,214	16 539	1 976 180
Tot Yr 7	1 790 369	487 229	301,417	301 417	55 086	246 331	185,811	1 976 180
85	1 976,180	42,817	25,977	25,977	3,294	22,684	16,840	1,993,020
86	1,993,020	43,182	25,977	25 977	3,294	22 684	17,205	2 010,225
87	2,010,225	43,555	25,977	25,977	3,294	22,684	17,578	2,027,803
88	2,027,803	43,936	25,977	25,977	3,294	22,684	17,959	2,045,761
89	2,045,761	44,325	25,977	25,977	3,294	22,684	18,348	2 064 109
90	2,064,109	44,722	25,977	25,977	3,294	22,684	18,745	2,082 854
91	2,082 854	45,129	27,849	27,849	3,471	24,378	17,279	2,100,133
92	2,100,133	45,503	27,849	27,849	3,471	24,378	17,654	2 117,787
93	2 117,787	45,885	27 849	27 849	3 471	24,378	18,036	2 135 823
94	2,135,823	46,276	27,849	27,849	3,471	24,378	18 427	2,154 250
95	2,154,250	46,675	27,849	27,849	3,471	24,378	18,826	2,173,077
96	2,173,077	47,083	27,849	27,849	3 471	24,378	19,234	2,192 311
Tot Yr 8	1,976 180	539,089	322 958	322 958	40 590	282,368	216,131	2 192,311

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Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
97	2 192,311	47 500	29,854	29,854	3 654	26 200	17,646	2,209 957
98	2,209,957	47,882	29,854	29 854	3 654	26,200	18 029	2 227 986
99	2,227,986	48,273	29,854	29,854	3,654	26 200	18 419	2 246 405
100	2,246,405	48,672	29,854	29,854	3,654	26,200	18,818	2,265,224
101	2,265,224	49,080	29,854	29,854	3,654	26,200	19,226	2,284,450
102	2,284,450	49,496	29,854	29,854	3,654	26,200	19,643	2,304,093
103	2 304,093	49,922	32,000	32,000	3,840	28 160	17,922	2 322 015
104	2,322,015	50,310	32,000	32,000	3,840	28 160	18,310	2 340,325
105	2,340 325	50,707	32,000	32 000	3 840	28 160	18,707	2,359,032
106	2,359,032	51,112	32,000	32,000	3 840	28,160	19,112	2,378,145
107	2 378,145	51,526	32 000	32 000	3 840	28 160	19 527	2 397,671
108	2 397 671	51 950	32 000	32 000	3 840	28,160	19,950	2 417,621
Tot Yr 9	2 192,311	596,432	371,122	371 122	44 964	326,158	225,310	2 417 621
109	2,417,621	52,382	34,298	34,298	4 029	30,268	18,084	2,435,705
110	2,435,705	52,774	34 298	34,298	4 029	30 268	18 476	2 454 181
111	2,454 181	53,174	34 298	34 298	4,029	30,268	18,876	2,473 057
112	2,473,057	53,583	34,298	34,298	4,029	30,268	19,285	2,492,342
113	2,492,342	54,001	34,298	34,298	4 029	30,268	19,703	2 512,045
114	2 512,045	54 428	34,298	34 298	4,029	30,268	20,130	2 532 175
115	2,532,175	54,864	36,757	36,757	4 220	32,537	18,106	2 550 282
116	2,550,282	55,256	36,757	36,757	4,220	32,537	18,499	2 568 780
117	2,568,780	55,657	36,757	36,757	4,220	32,537	18,900	2,587,680
118	2,587 680	56 066	36,757	36,757	4,220	32,537	19 309	2 606 989
119	2 606,989	56,485	36,757	36,757	4,220	32,537	19,727	2,626,716
120	2 626 716	56,912	36 757	36 757	4 220	32 537	20,155	2 646 871
Tot Yr 10	2 417 621	655 581	426 330	426 330	49 498	376 832	229,251	2 646 871
121	2,646,871	57 349	34,979	34 979	0	34,979	22,370	2,669,242
122	2,669,242	57,834	34,979	34,979	0	34,979	22,855	2,692,096
123	2,692 096	58,329	34,979	34 979	0	34 979	23,350	2 715 447
124	2 715 447	58,835	34,979	34 979	0	34 979	23 856	2,739 303
125	2 739 303	59,352	34,979	34,979	0	34 979	24 373	2 763 676
126	2,763 676	59 880	34,979	34,979	0	34,979	24,901	2 788 577
127	2,788,577	60,419	37,987	37 987	0	37 987	22,432	2 811 009
128	2 811,009	60 905	37,987	37,987	0	37 987	22 918	2 833 926
129	2 833,926	61,402	37,987	37,987	0	37,987	23,414	2,857,341
130	2,857,341	61,909	37,987	37,987	0	37,987	23,922	2,881 262
131	2,881,262	62,427	37,987	37,987	0	37,987	24,440	2,905 702
132	2 905,702	62,957	37,987	37,987	0	37,987	24,970	2,930,672
Tot Yr 11	2 646,871	721,596	437,796	437,796	0	437,796	283,801	2,930 672

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
133	2,930,672	63,498	41,260	41,260	0	41,260	22,238	2,952,910
134	2,952,910	63,980	41,260	41,260	0	41,260	22,720	2,975,630
135	2,975,630	64,472	41,260	41,260	0	41,260	23,212	2,998,842
136	2,998,842	64,975	41,260	41,260	0	41,260	23,715	3,022,556
137	3,022,556	65,489	41,260	41,260	0	41,260	24,229	3,046,785
138	3,046,785	66,014	41,260	41,260	0	41,260	24,754	3,071,539
139	3,071,539	66,550	44,821	44,821	0	44,821	21,729	3,093,268
140	3,093,268	67,021	44,821	44,821	0	44,821	22,200	3,115,468
141	3,115,468	67,502	44,821	44,821	0	44,821	22,681	3,138,149
142	3,138,149	67,993	44,821	44,821	0	44,821	23,172	3,161,321
143	3,161,321	68,495	44,821	44,821	0	44,821	23,674	3,184,996
144	3,184,996	69,008	44,821	44,821	0	44,821	24,187	3,209,183
Tot Yr 12	2,930,672	794,996	516,485	516,485	0	516,485	278,511	3,209,183
145	3,209,183	69,532	48,697	48,697	0	48,697	20,836	3,230,019
146	3,230,019	69,984	48,697	48,697	0	48,697	21,287	3,251,306
147	3,251,306	70,445	48,697	48,697	0	48,697	21,748	3,273,054
148	3,273,054	70,916	48,697	48,697	0	48,697	22,220	3,295,274
149	3,295,274	71,398	48,697	48,697	0	48,697	22,701	3,317,974
150	3,317,974	71,889	48,697	48,697	0	48,697	23,193	3,341,167
151	3,341,167	72,392	52,917	52,917	0	52,917	19,475	3,360,642
152	3,360,642	72,814	52,917	52,917	0	52,917	19,897	3,380,539
153	3,380,539	73,245	52,917	52,917	0	52,917	20,328	3,400,867
154	3,400,867	73,685	52,917	52,917	0	52,917	20,768	3,421,635
155	3,421,635	74,135	52,917	52,917	0	52,917	21,218	3,442,853
156	3,442,853	74,595	52,917	52,917	0	52,917	21,678	3,464,531
Tot Yr 13	3,209,183	865,031	609,683	609,683	0	609,683	255,348	3,464,531
157	3,464,531	75,065	57,515	57,515	0	57,515	17,550	3,482,081
158	3,482,081	75,445	57,515	57,515	0	57,515	17,930	3,500,010
159	3,500,010	75,834	57,515	57,515	0	57,515	18,318	3,518,329
160	3,518,329	76,230	57,515	57,515	0	57,515	18,715	3,537,044
161	3,537,044	76,636	57,515	57,515	0	57,515	19,121	3,556,164
162	3,556,164	77,050	57,515	57,515	0	57,515	19,535	3,575,699
163	3,575,699	77,473	62,528	62,528	0	62,528	14,945	3,590,645
164	3,590,645	77,797	62,528	62,528	0	62,528	15,269	3,605,914
165	3,605,914	78,128	62,528	62,528	0	62,528	15,600	3,621,514
166	3,621,514	78,466	62,528	62,528	0	62,528	15,938	3,637,452
167	3,637,452	78,811	62,528	62,528	0	62,528	16,283	3,653,736
168	3,653,736	79,164	62,528	62,528	0	62,528	16,636	3,670,372
Tot Yr 14	3,464,531	926,101	720,260	720,260	0	720,260	205,841	3,670,372

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
169	3 670,372	79 525	67 997	67 997	0	67 997	11,528	3 681 900
170	3,681 900	79 775	67 997	67,997	0	67 997	11 778	3,693,678
171	3,693,678	80,030	67,997	67 997	0	67 997	12 033	3 705,711
172	3,705,711	80,290	67,997	67,997	0	67 997	12,294	3,718,005
173	3,718,005	80,557	67,997	67,997	0	67,997	12,560	3,730 565
174	3,730,565	80,829	67,997	67,997	0	67 997	12,832	3,743,397
175	3,743,397	81,107	73,968	73 968	0	73,968	7,139	3,750 535
176	3,750,535	81,262	73,968	73,968	0	73,968	7 293	3,757 829
177	3,757,829	81,420	73,968	73,968	0	73 968	7,451	3,765 280
178	3 765 280	81,581	73 968	73,968	0	73 968	7 613	3,772,892
179	3,772,892	81,746	73 968	73,968	0	73 968	7 778	3 780 670
180	3 780 670	81,915	73 968	73 968	0	73 968	7 946	3 788 616
Tot Yr 15	3 670 372	970,035	851 791	851,791	0	851 791	118,244	3 788,616
181	3,788 616	82,087	80,497	80 497	0	80 497	1,590	3 790,206
182	3,790 206	82,121	80,497	80,497	0	80,497	1,624	3,791,830
183	3,791,830	82,156	80,497	80,497	0	80,497	1,659	3,793,490
184	3,793,490	82,192	80,497	80,497	0	80 497	1,695	3 795,185
185	3,795,185	82,229	80,497	80,497	0	80 497	1,732	3,796,917
186	3,796,917	82,267	80,497	80,497	0	80,497	1,770	3,798 687
187	3,798 687	82,305	87,645	82 305	0	87,645	(5,340)	3,793 347
188	3,793,347	82,189	87,645	82,189	0	87,645	(5,456)	3,787,891
189	3,787 891	82,071	87,645	82,071	0	87 645	(5,574)	3,782,317
190	3 782,317	81,950	87 645	81,950	0	87 645	(5,695)	3 776 623
191	3,776,623	81,827	87,645	81,827	0	87,645	(5,818)	3,770 805
192	3 770 805	81 701	87 645	81 701	0	87 645	(5,944)	3,764 860
Tot Yr 16	3,788 616	985,095	1 008 850	975 024	0	1 008 850	(23 756)	3 764 860
193	3,764,860	81,572	95,487	81,572	0	95 487	(13,915)	3,750,946
194	3,750,946	81,270	95,487	81,270	0	95,487	(14,216)	3,736,730
195	3,736,730	80,962	95,487	80,962	0	95,487	(14,524)	3,722,206
196	3,722,206	80,648	95,487	80,648	0	95 487	(14,839)	3 707 367
197	3,707,367	80,326	95,487	80,326	0	95 487	(15,160)	3 692 207
198	3,692 207	79,998	95,487	79 998	0	95,487	(15,489)	3,676,718
199	3,676,718	79,662	104,113	79,662	0	104 113	(24,451)	3 652 267
200	3 652 267	79,132	104,113	79 132	0	104 113	(24 981)	3,627 287
201	3,627 287	78,591	104,113	78,591	0	104 113	(25,522)	3 601,765
202	3,601,765	78,038	104,113	78 038	0	104 113	(26,075)	3,575 690
203	3,575 690	77,473	104,113	77,473	0	104 113	(26 640)	3 549 050
204	3,549 050	76,896	104,113	76 896	0	104 113	(27,217)	3 521,834
Tot Yr 17	3,764 860	954,570	1,197,597	954 570	0	1 197 597	(243 027)	3 521,834

Financial Analysis of DPM Loan

As of End of Month	Beginning Loan Balance	Interest Due at Contract Rate	Actual Payment Made at Pmt Rate	Total Interest Paid	Subsidy @ Subsidy Rate x Beg Loan Balance	Borrower Payment	Interest Capitalization or (Principal Repayment)	Ending Loan Balance
205	3,521,834	76,306	113,640	76,306	0	113,640	(37,333)	3,484,500
206	3,484,500	75,498	113,640	75,498	0	113,640	(38,142)	3,446,358
207	3,446,358	74,671	113,640	74,671	0	113,640	(38,969)	3,407,390
208	3,407,390	73,827	113,640	73,827	0	113,640	(39,813)	3,367,577
209	3,367,577	72,964	113,640	72,964	0	113,640	(40,676)	3,326,901
210	3,326,901	72,083	113,640	72,083	0	113,640	(41,557)	3,285,344
211	3,285,344	71,182	124,224	71,182	0	124,224	(53,041)	3,232,303
212	3,232,303	70,033	124,224	70,033	0	124,224	(54,190)	3,178,113
213	3,178,113	68,859	124,224	68,859	0	124,224	(55,364)	3,122,749
214	3,122,749	67,660	124,224	67,660	0	124,224	(56,564)	3,066,185
215	3,066,185	66,434	124,224	66,434	0	124,224	(57,790)	3,008,395
216	3,008,395	65,182	124,224	65,182	0	124,224	(59,042)	2,949,354
Tot Yr 18	3,521,834	854,699	1,427,179	854,699	0	1,427,179	(572,480)	2,949,354
217	2,949,354	63,903	136,098	63,903	0	136,098	(72,195)	2,877,159
218	2,877,159	62,338	136,098	62,338	0	136,098	(73,759)	2,803,399
219	2,803,399	60,740	136,098	60,740	0	136,098	(75,357)	2,728,042
220	2,728,042	59,108	136,098	59,108	0	136,098	(76,990)	2,651,052
221	2,651,052	57,439	136,098	57,439	0	136,098	(78,658)	2,572,394
222	2,572,394	55,735	136,098	55,735	0	136,098	(80,363)	2,492,031
223	2,492,031	53,994	149,664	53,994	0	149,664	(95,670)	2,396,361
224	2,396,361	51,921	149,664	51,921	0	149,664	(97,743)	2,298,618
225	2,298,618	49,803	149,664	49,803	0	149,664	(99,861)	2,198,757
226	2,198,757	47,640	149,664	47,640	0	149,664	(102,024)	2,096,733
227	2,096,733	45,429	149,664	45,429	0	149,664	(104,235)	1,992,498
228	1,992,498	43,171	149,664	43,171	0	149,664	(106,493)	1,886,005
Tot Yr 19	2,949,354	651,222	1,714,571	651,222	0	1,714,571	(1,063,349)	1,886,005
229	1,886,005	40,863	165,810	40,863	0	165,810	(124,946)	1,761,058
230	1,761,058	38,156	165,810	38,156	0	165,810	(127,654)	1,633,405
231	1,633,405	35,390	165,810	35,390	0	165,810	(130,419)	1,502,985
232	1,502,985	32,565	165,810	32,565	0	165,810	(133,245)	1,369,740
233	1,369,740	29,678	165,810	29,678	0	165,810	(136,132)	1,233,608
234	1,233,608	26,728	165,810	26,728	0	165,810	(139,082)	1,094,527
235	1,094,527	23,715	187,779	23,715	0	187,779	(164,064)	930,463
236	930,463	20,160	187,779	20,160	0	187,779	(167,619)	762,844
237	762,844	16,528	187,779	16,528	0	187,779	(171,250)	591,594
238	591,594	12,818	187,779	12,818	0	187,779	(174,961)	416,634
239	416,634	9,027	187,779	9,027	0	187,779	(178,751)	237,882
240	237,882	5,154	187,779	5,154	0	187,779	(182,624)	55,258
241	55,258	1,197	56,455	1,197	0	56,455	(55,258)	0
Tot Yr 20	1,761,058	251,117	2,012,175	251,117	0	2,012,175	(1,761,058)	0

FINANCIAL PROJECTIONS FOR DPM LOANS

ASSUMPTIONS

Deposits to Fund Initial Loan Amount	920 000	Annual Provision as % of Interest	
Mtd Ave Cost of Deposits	13 00%	Capitalized	20 00%
HG Loan Funds 4% of Loan	40 000	Tax Rate	40 00%
HG Lending Rate	19 00%	General Provision as %	1 25%
Servicing Fee as % of		of Increase in DPM Loan Balance	
Average Loan Balance	1 00%	50% of Interest Paid on Deposits	
Marginal DPM Administrative Costs		is paid out in cash the balance	
as a % of Interest Income	5 00%	is retained in deposit accounts	

INCOME STATEMENT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Interest Income Collected - Borrower	119,176	133,471	149,487	167,435	188,525
Interest Income Collected - Subsidy	51,243	56,411	61,969	67,911	44,760
Interest Income Earned, but not Collected	101,400	109,223	116,961	124,360	163,254
Total Interest Income	271,819	299,105	328,418	359,707	396,539
Interest Expense - Deposits	119,600	127,374	135,653	144,471	153,861
Interest Expense - HG Loan	7,600	7,600	7,600	7,600	7,600
Net Interest Income	144,619	164,131	185,164	207,636	235,078
Servicing Income	10,498	11,550	12,681	13,888	15,321
Administrative Expense	13,591	14,955	16,421	17,985	19,827
Net Income Before Provision	141,526	160,726	181,425	203,539	230,571
Provision for Capitalized Interest	20,280	21,845	23,392	24,872	32,651
Net Income Before Tax	121,246	138,881	158,032	178,667	197,921
Taxes	56,610	64,290	72,570	81,415	92,229
Net Income After Tax	64,636	74,591	85,463	97,251	105,692
General Reserve	1,268	1,365	1,462	1,555	2,041
Income Available for Distribution	43,315	50,899	59,720	69,998	52,020
Dividends Paid @ 50%	21,658	25,450	29,860	34,999	26,010
Go Profit/Loss in Balance Sheet	41,710	47,776	54,140	60,698	77,642

BALANCE SHEET

Assets

Cash		21,658	47,107	76,968	111,967	137,976
Total DPM Loans Outstanding	1,000,000	1,101,400	1,210,623	1,327,585	1,451,945	1,615,199
Total Assets	1,000,000	1,123,058	1,257,731	1,404,552	1,563,912	1,753,175

Liabilities

Short Term Deposits	920,000	979,800	1,043,487	1,111,314	1,183,549	1,260,480
Provision For Capitalized Interest	0	20,280	42,125	65,517	90,389	123,040
Long Term Subordinated HG Loan	40,000	40,000	40,000	40,000	40,000	40,000
Capital Reserves	40,000	40,000	40,000	40,000	40,000	40,000
Revenue Reserve			41,710	89,486	143,627	204,324
Profit/Loss in the Balance Sheet		41,710	47,776	54,140	60,698	77,642
General Reserve		1,268	2,633	4,095	5,649	7,690
Total Liabilities and Capital	1,000,000	1,123,058	1,257,731	1,404,552	1,563,912	1,753,175

Total Adjusted Capital	80,000	122,978	172,119	227,721	289,974	369,656
Capital Adequacy Ratio	8 00%	11 17%	14 22%	17 15%	19 97%	22 89%

FINANCIAL PROJECTIONS FOR DPM LOANS

ASSUMPTIONS

Deposits to Fund Initial Loan Amount	920 000	Annual Provision as % of Interest	
Wtd Ave Cost of Deposits	13 00%	Capitalized	50 00%
HG Loan Funds 4% of Loan	40 000	Tax Rate	40 00%
HG Onlending Rate	19 00%	General Provision as %	1 25%
Servicing Fee as % of		of Increase in DPM Loan Balance	
Average Loan Balance	1 00%	50% of Interest Paid on Deposits	
Marginal DPM Administrative Costs		is paid out in cash, the balance	
as a % of Interest Income	5 00%	is retained in deposit accounts	

INCOME STATEMENT

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Interest Income Collected - Borrower	119,176	133,471	149,487	167,435	188,525
Interest Income Collected - Subsidy	51 243	56,411	61,969	67,911	44,760
Interest Income Earned but not Collected	101 400	109 223	116 961	124,360	163 254
Total Interest Income	271 819	299,105	328 418	359,707	396 539
Interest Expense - Deposits	119 600	127 374	135 653	144 471	153,861
Interest Expense - HG Loan	7 600	7 600	7,600	7 600	7,600
Net Interest Income	144,619	164,131	185,164	207,636	235,078
Servicing Income	10 498	11 550	12,681	13 888	15,321
Administrative Expense	13,591	14,955	16,421	17,985	19,827
Net Income Before Provision	141,526	160,726	181,425	203,539	230,571
Provision for Capitalized Interest	50,700	54,612	58,481	62,180	81,627
Net Income Before Tax	90,826	106,114	122,944	141,358	148 944
Taxes	56,610	64,290	72,570	81,415	92,229
Net Income After Tax	34,216	41,824	50,374	59,943	56,716
General Reserve	1,268	1,365	1,462	1,555	2,041
Income Available for Distribution	43,315	50,899	59,720	69,998	52,020
Dividends Paid @ 50%	21,658	25,450	29,860	34,999	26,010
To Profit/Loss in Balance Sheet	11,290	15,009	19,052	23,389	28,665

BALANCE SHEET

Assets

Cash		21,658	47,107	76,968	111,967	137,976
Total DPM Loans Outstanding	1,000 000	1 101,400	1,210,623	1,327,585	1,451,945	1 615,199
Total Assets	1,000,000	1,123,058	1 257,731	1 404,552	1,563,912	1,753,175

Liabilities

Short Term Deposits	920,000	979,800	1,043,487	1,111,314	1,183,549	1,260,480
Provision For Capitalized Interest	0	50 700	105,312	163,792	225,972	307,599
Long Term Subordinated HG Loan	40,000	40 000	40,000	40,000	40,000	40 000
Capital Reserves	40,000	40,000	40,000	40,000	40,000	40,000
Revenue Reserve			11,290	26 299	45,351	68,741
Profit/Loss in the Balance Sheet		11 290	15,009	19,052	23,389	28,665
General Reserve		1,268	2,633	4 095	5,649	7,690
Total Liabilities and Capital	1,000,000	1 123 058	1,257 731	1 404,552	1,563,912	1,753,175
Total Adjusted Capital	80,000	92,558	108 932	129,446	154,390	185,096
Capital Adequacy Ratio	8 00%	8 40%	9 00%	9 75%	10 63%	11 46%

STATEMENT OF CHANGES IN CASH POSITION FOR DPM LOANS

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
<u>CASH GENERATED BY</u>					
Borrower Payment	119,176	133,471	149,487	167,435	188,525
GOH Subsidy Payment	51,243	56,411	61,969	67,911	44,760
Servicing Fee	10,498	11,550	12,681	13,888	15,321
TOTAL SOURCES OF CASH	180,917	201,432	224,138	249,234	248,606
<u>CASH USED BY</u>					
Payment of Interest on Deposits (@ 50% of Interest Due)	59,800	63,687	67,827	72,235	76,931
Payment of Interest on HG Loan	7,600	7,600	7,600	7,600	7,600
Administrative Expense	13,591	14,955	16,421	17,985	19,827
Taxes	56,610	64,290	72,570	81,415	92,229
Dividends	21,658	25,450	29,860	34,999	26,010
TOTAL USES OF CASH	159,259	175,982	194,278	214,235	222,596
NET INCREASE OR (DECREASE) IN CASH	21,658	25,450	29,860	34,999	26,010

ANNEX G

MANAGING CREDIT RISKS

THE PROBLEM

The main objective of the Housing Guaranty Program is to assist the Government of Hungary in creating a viable market-based housing finance system

A market housing finance system places three primary risks on a lender interest rate risk, liquidity risk, and credit risk. The interest rate risk concern is largely alleviated by the use of a variable market rate mortgage instrument. It would be reduced even further by secondary market funding of lending. The liquidity issue is not currently a major obstacle but could become one in the future, since the OTP intends to introduce a mortgage design with a much longer effective duration than currently (see Annex H). Recommendations for addressing this risk also appear in another part of this Annex.

The third risk--with respect to timely repayment--is considered to be the major obstacle to the creation of a market finance system in Hungary. The reasons for this vary--from those specific to the Hungarian situation to those related to all countries undergoing similar economic volatility and upheaval. What is most important to note is that changes in the system and the economic situation make credit risk a greater problem than before. Further, to wait until these problems and issues are resolved would cause a significant delay in the implementation of a market-based housing finance system. A discussion on the specific weaknesses in the system appears below.

Foreclosure and Eviction

The one item that is consistently referred to as the most important constraint in the development of a market-based system is the absence of appropriate foreclosure and eviction procedures in the case of serious delinquencies. Having a foreclosure provision that is efficient and thus effective is the first step necessary to create a "true mortgage" with collateral. It serves to permit the borrower to truly put up his or her home as collateral against repayment of the loan. In addition, effective eviction procedures are needed to free up the property for resale and to provide a serious, immediate incentive to avoid foreclosure.

The Government of Hungary recognizes the critical need for action in this area. For example, OTP has over 35 percent of its housing loans in default for over one year and there is little it can do to enforce the liens on these properties or seek other remedies. The current GOH housing policy paper contains a proposal that (1) would allow the lender to foreclose on a home and transfer the obligation to provide

alternative housing to the government and (2) would reduce the degree to which the former owner is entitled to housing of equivalent quality

Although this new approach would increase the "threat of eviction" (albeit to alternative housing), historical difficulties in eviction and social reaction to it suggest that it may take long before this is a bonafide deterrent to non-payment. Using rental experience as an analogy, it usually takes several years to evict a non-paying tenant and only a very small percent of these tenants are ever evicted.

The Partial Deferral of Mortgage Repayments

The Deferred Payment Mortgage (DPM) (see Annex E) has been designed to provide the lender a market contract rate and the borrower a more affordable payment rate, proposed as 10 percent. If the payment rate is less than the contract rate, the result will be negative amortization or capitalization.

This capitalization is a potential credit concern, simply because it shifts the variation in the loan-to-value ratio over the life of the loan from its current rapid decline under the onslaught of inflation to more closely that of a normal loan in a low-inflation environment. Especially in a volatile economic environment, changes in the collateral value may not necessarily occur proportionately with changes in the mortgage balance. The borrower's downpayment is expected to continue to be very significant (about 50%). However, unusual situations in less volatile economic environments than Hungary have caused similar credit problems (e.g., the southwest US in the 1980's and California today).

There is also a credit risk in the way the borrower's payment is computed. It is not connected to changes in wages or capped in any way, except as one might expect wage changes to at least match the net contract rate less the payment rate. However, because of the changeable economic conditions, these changes are less likely to be parallel than in more stable economies.

Lack of Institutional Market Lending Procedures

The best way to reduce credit risk is to originate (which includes underwrite) and service (which includes default management) properly and prudently. Unfortunately, the OTP has only had a few years in which it had any real reason to originate and service loans in such a way. No other lender has even had this amount of time to attempt proper housing lending. Samples of delinquent loans as well as the analysis of mortgage experts result in the same conclusion: although the OTP has worked diligently at improving its situation, it recognizes that additional effort is needed--especially in servicing delinquent loans and in providing management accurate information on loan performance.

Ancillary Lending Support

There are many industries that support the housing lender. Four in particular --appraisal, title registration, mortgage registration, and credit information--should be noted as they relate to credit risk.

■ Appraisal

The low loan-to-value ratios typical in loans in Hungary--and expected to continue albeit slightly higher--can not be relied upon as a credit protection if the value is over-stated. Although experienced and qualified appraisers are available in Hungary, there is inconsistency due to a lack of information and differences in methodology and experience. Their jobs have been made even more difficult due to the distortion in housing prices and components. While this is likely to improve over time as the appraisers gain experience and the market becomes less volatile, it provides an additional credit risk concern.

■ Title Registration

Title registration problems also create credit risk. Under the proposed foreclosure law change, the lender will be able to foreclose. However, if title is not good or is not free of liens and there is no additional protection, such as title insurance, the lender may still not be able to gain possession of the property.

In Hungary, the Government dealt with the issue of claims by prior land owners through the use of a compensation coupon system. Under this system, in lieu of giving back property to these owners, the Government gave coupons which could be used to invest in numerous enterprises. This solution has not eliminated title concerns, however. There are conflicting claims among different levels of government and state-owned businesses plus a large accumulation of "off-record" interests created over the last 40 years.

The other problem relates to the lack of a system to update ownership data. As a result, even if, on the first sale by the Government, ownership was clearly designated, there is no way to ensure that intervening liens have not occurred prior to a lender registering a loan on a home.

■ Mortgage Registration

A third concern is the long delays in mortgage registration--often up to one and a half years. Although the point has been made that foreclosure takes so long that the mortgage will be registered before foreclosure could occur, there is no protection for other liens to prime the mortgage during this long delay. This, coupled with the fact that the mortgage is not the prime lien, increases lender risk.

■ Credit History Data

Lastly, the lack of reliable credit information inhibits the lender's ability to test two of the three components of underwriting--demonstration of the borrower's ability and their willingness to pay. Without being able to check on other debts the borrower may have or have access to a reliable credit history, the lender can not appropriately evaluate the application.

The Government intends to address part of this problem under its housing policy program. It plans to make it easier for banks to check with each other regarding whether a potential borrower has other loans. This will capture information pertaining to a borrower's debt-to-income ratio. However, it will not capture other obligations or credit history such as credit card charges or debts owed directly to providers of goods.

Housing Conditions

Much of the housing stock--especially in Budapest--exists in the form of condominium ownership. This is particularly significant due to the problems associated with deferred maintenance on major structural components of the common areas.

Hungary's condominium law does permit the association to undertake rehabilitation activities with a majority vote. This permits the association to take on necessary maintenance and charge members appropriate assessments.

The serious nature of the condition of the condominium buildings affects a lender's credit risk in several ways. To improve the project's condition, the condominium owner is likely to face significant assessments. Unless these assessments are projected and thus can be included in the lender's underwriting analysis (and the housing ratios), these additional costs can increase the part of the owner's income allocated to housing very significantly. Difficulty in enforcing assessment liens may further add to this burden since the share of fellow owners could end up in the assessments of paying owners.

Changes in the Lending System

Previously, the OTP had several advantages to protect itself against non-paying borrowers. These advantages no longer exist or are less relevant than before, in addition, they are not applicable, effectively, to other lenders who might want to enter the housing finance market.

The OTP's greatest protection was that it had an automatic right to garnish wages. Since everyone was effectively employed by the state, this enabled the OTP

to make itself whole without needing foreclosure rights

Currently, this automatic right no longer exists. Although the government may still be willing to allow the OTP to garnish wages, more and more borrowers are employed by private employers or are self-employed. In addition, unemployment has been increasing--from 11% in October 1992 to a projected 18% by the end of 1993. This increase in unemployment means, in the context of garnishing wages, that there are no wages to take. However, its importance regarding credit risk is much more significant since unemployment is the most important borrower reason for default. Finally, the expedited process for garnishing available previously to OTP has been struck down by the courts.

POLICY AND PROGRAM GOALS OF THE HG-001

The analysis of factors contributing to credit risk results in several conclusions. First, there are a variety of factors increasing credit risk in Hungary with a differing degree of importance. Second, although the Government is attempting to address some of these issues, sufficient change is not likely to occur rapidly. The result is a recommended program in which the Government will provide incentives to banks to originate and service loans and to share risks in an efficient and equitable manner.

Procedural and Lending Changes

It is not possible in a market system to eliminate credit risk. However, there are many areas affecting credit risk which could be improved upon in order to reduce this risk. In those areas where risk reduction is possible, it is recommended that the Housing Guaranty Program provide policy and technical assistance support.

The most important change the Government can make is to proceed towards changes that create an efficient foreclosure and eviction system. The fear of losing one's home is the greatest financial deterrent to nonpayment. The ability of the lender to take possession and sell the home on equal market footing with other homes provides the lender with greater assurance that losses will be covered. In fact, because the value of the home usually greatly exceeds the amount of the loan, the outcome of a default would usually be a sale by the borrower, rather than by the lender.

Alternative protections can provide lenders with some comfort without an adequate foreclosure and eviction process. However, those previously in effect in Hungary, such as wage garnishment, are no longer useful tools. The approach recommended in this paper in the following section on "Credit Risk Sharing Program" is another way to reduce lender concerns. However, it is important to recognize that

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without proper legal enforcement of the lender's security interest in the collateral, all parties end up paying through higher insurance premiums. The best solution is for the Government to move toward the direction of foreclosure and eviction. This effort is an important component of the policy objectives of the Housing Guaranty program.

Other legal issues should also be addressed. Improved title procedures are needed to ensure that possession can be achieved if foreclosure is possible. The Government of Hungary should be encouraged to make necessary changes to improve the priority of a mortgage loan. A more efficient mortgage registration system is also critical, the one to two years it now takes to register a mortgage enables other liens to take precedence over the mortgage and can greatly reduce the value of the collateral as a protection for the lender.

Only the Government can make the legal changes necessary to alleviate credit risk. Lenders, with Government support, can make the other most important change to reduce the likelihood of losses--better lending. Appropriate underwriting and servicing requirements must be designed. These requirements must be supported with adequate documentation and procedures, including strong management controls. In addition, there must be sufficient methods for quality control and auditing to make sure that the requirements and procedures are followed and that, if they are followed and problems still exist, changes are made to reduce or eliminate the cause of the problems.

As noted, the OTP is working on making improvements that will reduce risks. The OTP should be encouraged to continue making this progress and to do so in a way that results in greater uniformity among different branches. The OTP should become a model for good market lending that can be studied by other lenders entering the market. Technical assistance should be offered to the OTP and to other lenders in their development of these improved systems.

Housing finance lenders can not improve the quality of the system without improvement also coming from auxiliary industries. The appraisal industry must become better able to provide valid appraisal information upon which lenders base the loan amounts and construction commitments. The need for reliable credit information is paramount to making proper decisions regarding a borrower's ability and willingness to pay. In regard to the latter, the Government has expressed interest in pursuing ways to establish better information sharing among banks. This is a very important start to narrowing this information gap. The Housing Guaranty Program should support training programs for appraisers and provide technical assistance in the development of better credit rating tools.

The last area in the procedural and lending process recommended for focus under the Housing Guaranty Program concerns problems with condominium structures. It is not feasible to eliminate from the Program units in buildings with

serious structural problems. An alternative is to provide training that assists associations with planning and execution of project improvements.

Credit Risk Sharing Program

There are many ways to design a program that involves risk sharing among different parties. Included in this list are senior subordinated structures or loans, which means that the cash flow pays first to the senior tranche and then to other tranches in order of their priority. Another possibility is to pool together all or part of the loans and insure the pool, the risk-sharing could be in what percentage of the loan is put in the pool that is then insured. If the causes of the risk can be targeted - such as death, unemployment, or disability - then a special insurance policy could be created to cover only the specific risk. Lastly, a consortium of lenders could pool their risk by each having a participating interest in the loans or a guarantee fund insuring the loans.

All these alternatives were considered for Hungary. The first two were rejected because their value is primarily in the enhancement they provide to a pool of loans for the purpose of resale. The third option was rejected because, as the discussion under the heading "The Problem" demonstrates, the credit risk concerns are not limited to one targeted insurable factor. The last option is currently not feasible because, basically, only one lender, OTP, originates loans so there is no consortium with which to share risk.

The proposal that is being recommended is one that provides credit enhancement directly to the source of concern - the mortgage. The proposal is a mortgage insurance program created by the Government but in which there is a degree of risk sharing. As noted in Annex H, "Managing Liquidity Risks", this approach should facilitate resale of the loans when it is appropriate to design such a program, but its primary purpose is credit enhancement of the mortgages.

The Housing Guaranty Program provides time for design of the mortgage insurance program. Although this Annex suggests a specific design framework, this design is intended to demonstrate the feasibility of the concept and not be viewed as a definitive program requirement.

When the detailed program design work occurs, there are several general concepts that should be taken into consideration:

- The mortgage insurance program is not the first Government-related credit enhancement program in Hungary. There are other examples, noted in this Annex, that could serve as models for the structure of the mortgage insurance program.

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- Wherever possible, the program should try to utilize existing structures and businesses. For example, it may be possible to expand one of the Government-related credit enhancement functions to include mortgage insurance or to handle administrative functions. A private company might also serve as a contractor responsible for administration of the program.
- The program should be set up so that it can evolve when relevant policy, legal, and economic changes occur. For example, the design described in this Annex provides for reimbursement of claims prior to foreclosure and sale. Due to the current inefficient foreclosure and eviction process, any other approach would not provide sufficient relief to lenders to encourage their participation in the program. However, once the foreclosure process is efficient, the program could be significantly altered so that claims would not be made until after the home is sold. This will also eliminate the need for the mortgage insurer to buy the loan from the lender and all the additional functions resulting from this activity.
- The design should take into consideration ways that best produce opportunities to facilitate liquidity options and to benefit from accounting and regulatory rules.

■ **Government Risk and Ownership**

If private mortgage insurance were feasible, then this would be the option first considered for this program. This is not realistic, however, due to Hungary's current credit risk problems - plus the significance of the lack of effective foreclosure and eviction procedures and rights. This is further supported by Hungary's small size which makes it difficult for a private insurer to diversify.

In lieu of a private mortgage insurer, the mortgage insurance program developed with Housing Guaranty assistance could be 100% Government owned, along the lines of the US Federal Housing Administration. There are already examples in Hungary, however, that suggest that it may be possible to use private insurers or other guarantee funds to share in the risk and/or serve as agents to handle operational and administrative tasks.

Concordia Insurance Brokers Ltd, which is owned proportionately by OTP and an American/British company, is interested in sharing in the component of the risk associated with disability and death but less likely to handle the risk of unemployment and unwilling at this time to cover any other risk issues. AB-Aegon also has worked on similar programs. The Hungarian Foundation for Enterprise Promotion, which funds as well as credit enhances loans for small and medium sized

businesses, has expressed interest in pursuing some of these same activities

Another option would be to create a facility that is owned by the Government and other financial institutions and insurance companies, along the lines of the Hungarian Credit Guaranty RT. This program provides up to 80% credit insurance to member banks on loans to small and medium businesses. The Government provided HUF 2 billion of the total HUF 3.5 billion used to capitalize the company and retains a proportionate share of ownership and four of the nine positions on the Board of Directors. The remaining ownership is 28 banks with stock ownership proportionate to their size and a small amount of private shareholders.

Although a mortgage insurance facility is unlikely to attract banks other than the OTP as the Credit Guaranty RT could do, a small ownership requirement could be made of all banks eligible for the mortgage insurance program. Or the Credit Guaranty RT might incorporate all or part of the activities and responsibilities of a mortgage insurance fund.

Design of the specific ownership and management details will be required prior to disbursement of the second tranche under the Housing Guaranty Program. The design should take into consideration use of existing institutions and programs and the future evolution of the program to an even more privately owned company. Regardless of the specific ownership design, the program would be created by the Government and initially capitalized by the Government with support from the Housing Guaranty funds.

■ Risk Sharing

As noted above, the Government's risk might be reduced by having its portion of the losses covered by a government/private institutions consortium or by other means of reinsurance. In addition to this risk responsibility, however, there are two other parties sharing in the risk besides the government-related institution ("the mortgage insurer") - the borrower and the lender. The borrower risks his equity contribution (the downpayment) as well as potentially any principal payments. The lender and the mortgage insurer would share the remaining loss as of the date in which the claim is acted upon by the mortgage insurer (the "stop-loss date").

There are many alternatives to consider when determining what the shared risk should be between the lender and the government. Under the Government's housing policy paper, there is a proposal for shared risk of the loss after foreclosure of 80% for the Government and 20% for the lender. Although this split is reasonable, another possibility might be to have the Government responsible for most or all of the loss due to administrative expenses of delinquency management and a smaller portion of the interest rate loss (perhaps 70% for the mortgage insurer and 30% for the lender). The reason for this proposal is to avoid the possibility that the lender

might not service as aggressively if it had to lose part of the cost of this aggressive servicing

The program might work as follows (subject to further refinement prior to disbursement of funds under the second tranche) A loan would be in default after its first missed payment The lender would follow strict guidelines on delinquency maintenance that would include provisions for loan workouts if appropriate If, after 150 days, the loan is still in default, the lender would file a claim and 30 days later, at the stop loss date, the mortgage insurer would settle the claim The claim would cover the proportionate share of administrative, penalty, and interest costs owed from the date of the first delinquent payment The mortgage insurer would then purchase the mortgage and pursue foreclosure to recover its losses It may also hire a debt collection firm to service the debt on a contingency basis If there is an additional loss at foreclosure, then the mortgage insurer would have this loss If, however, there is sufficient value in the property and the court distributes the funds accordingly, the mortgage insurer could get reimbursed for all administrative and interest costs, including those that were lender losses In the latter case, the mortgage insurer would obtain the full amount to compensate it for the former instances when it has a larger loss

It is important to note is that this recommendation is based upon the mortgage insurer buying 100% of the loan balance, less the lender's share of the loss This requires the mortgage insurer to have sufficient capital which initially could come from the Housing Guaranty funds and a Government contribution The reason for this approach is that the lengthy time and uncertainty of foreclosure requires the lender to receive cash prior to foreclosure

It is possible that the borrower will bring the loan current after the mortgage insurer has purchased the loan In such case, the mortgage insurer might hold auctions to sell loans to interested lenders or, possibly through a subsidiary, aggregate these loans and issue mortgage-backed bonds or securities

To illustrate how the proposed program would work (without adjusting for any Government interest rate subsidy), a loan with an original balance of HUF 1 million, a payment rate of 10% and a contract rate of 26% would have a balance of approximately HUF 1.5 million at the end of the fourth year Assuming that this is the first date of nonpayment with the stop loss date occurring 180 days later, the costs taken into consideration to determine what the mortgage insurer pays the lender when it fulfills its obligations and buys the loan are the extra administrative costs for servicing the loan, not covered by the servicing fee, during the period of delinquency might be HUF 22,500 (25% on the balance), the interest due from the date of the first delinquent payment until the stop loss date would be six times the monthly interest due or approximately HUF 200,000, the penalty fee (6% on the nonpayment) would be HUF 22,500 The mortgage insurer would pay the lender HUF

1.5 million plus the administrative costs of HUF 22,500 (assuming this risk falls entirely on the mortgage insurer) plus 70% of the aggregate unpaid interest and penalty fee (HUF 212,000) or HUF 1.37 million. The mortgage insurer might then give the servicing of the loan over to a collection agency which would continue to try to bring the loan current while simultaneously proceeding to foreclose on the loan.

Several different procedural and program features were considered and more should be investigated during the actual design of the program. For example, there was consideration for an alternative approach which would involve either waiting until foreclosure to determine proportionate losses or to use an appraisal to estimate the eventual loss at the time the stop loss date. These ideas were rejected because of the extensive time it takes for foreclosure which increases the time before the lender would get paid and further diminishes the effective value of the appraisal.

Another option was to reward lenders when there is a pattern of no losses once the mortgage insurer has foreclosed and received funds from the courts. As noted above, the mortgage insurer could end up with a reimbursement that covers more than its losses. If possible, a process should be developed that repays lenders with loans where this consistently happens - perhaps by charging their customers lower premiums and thus making them more competitive. Or, if the mortgage insurer is partially owned by the participating institutions, there could be a dividend when these profits happen. The difficulty in implementing any of these options under the current environment, however, is the long time it will take before it is known that there is a profit.

PROGRAM REQUIREMENTS

To qualify for the program, loans will have to be underwritten and serviced according to the mortgage insurer's guidelines. These guidelines will be carefully formulated after analysis of the determinants of default in OTP's current portfolio and experience of other mortgage credit enhancement institutions and lenders in market systems. The mortgage insurer will try to ensure that these requirements are followed by offering training and assistance to lenders, conducting audits, and suspending or terminating lenders that do not fulfill their obligations.

The borrower will pay for the mortgage insurance. There are a variety of ways in which the borrower could make this premium payment - including an up-front fee, amortizing the premium over the life of the loan, a percentage added to the payment or contract rate, or a combination of these options. It may also be possible for the program to have a feature which provides for a reimbursement of part of the premium if the pool of insured loans perform better than expected (a mutual mortgage insurance fund) or on a personal basis after a specified time period or when the loan-to-value ratio based upon a new appraisal reaches a specified point. In addition, the

program could provide for "LTV pricing" - that is different premiums depending upon the loan-to-value ratio

Pricing the premium will be very difficult due to the lack of credible and adequate data and the lack of experience with the DPM and new lending procedures. There may also be pressure on the Government to subsidize the insurance premium because it will add to housing costs and thus reduce affordability. As much as possible, the premium should cover expected losses and be determined based upon prudent techniques applied by mortgage credit enhancers in market systems.

PROPOSED TIMETABLE

The Housing Guaranty Program requires that the mortgage insurance program be designed before the second disbursement. The program is to be fully implemented before the third tranche is permitted.

The program will have several stages:

- **General program framework design** - The work product would be a charter or foundation document with background documents detailing in narrative form the program requirements. With advisory assistance, this task should be accomplished in three months.
- **Government approval** - This may require legislative action and thus it is not possible to predict a timeframe. Its lack of approval, though, will impact disbursement of funds under the Housing Guaranty Program.
- **Detail of program development and implementation** - The mortgage insurer must establish underwriting and servicing standards for loans it insures plus its own internal pricing, audit, quality control, servicing, and administrative processes. The timeframe for this can be consolidated if the standards and procedures for OTP are in place and can be adopted by the mortgage insurer and if part or all of the procedures are contracted out to another credit enhancement company.

ANNEX H

MANAGING LIQUIDITY RISKS

THE PROBLEM

There are several reasons why the Government of Hungary and the OTP are interested in addressing the subject of liquidity. Their concerns result from the impact of moving towards a market housing finance system that involves a long-term mortgage instrument, incorporation of match funding and risk-based capital rules, cash needs of lenders other than the OTP, and portfolio management flexibility. To address these concerns, they are looking appropriately to the solutions found in other countries for funding long-term mortgage loans: the sale of securities or bonds with long-term maturities to investors with special investment needs.

Maturity Gap and Cash Flow Concerns

Recent regulations promulgated by the State Banking Supervision Committee require a constant covering of immediate liabilities with liquid assets and some negotiated matching of terms over a longer time period. The objective is to ensure that assets and liabilities parallel sufficiently to avoid a liquidity and interest rate mismatch.¹

The mortgage instrument that is proposed for Hungary, the DPM, is a 20-year mortgage with the potential of significant capitalization - at least during the current high inflation period. There is no funding instrument for OTP or other potential housing finance lenders to match the cash flow and term of this mortgage.

OTP is sufficiently liquid to handle the maturity gap created by the DPM. Its large deposit base provides it with sufficient support for the expected volume. Further, OTP's experience has been that although time deposits are short, 75% of these liabilities can be considered as permanent resources with an effective maturity of 5 years or more.

The OTP analysis has been based on past activities. As long as OTP's portfolio structure remains unchanged, it should have excess liquidity that compensates for the maturity gap. However, the bank is moving in ways that indicate a change in direction and it will most likely need to implement better match funding methods in the future.

¹ This provision of the regulation appears to be intended to address both interest rate risk and liquidity risk. Interest rate risk is not an issue for this program since the contract rate on the DPM will vary according to the interest cost of deposits. The major concern is with the fact that the level of deposits held by the public with the bank can vary unexpectedly and cause a need for cash resources that cannot be met out of liquid reserves and cash flows.

Also important is the DPM's impact on matching assets for other banks. The creation of a market system eventually requires competition. It is important, therefore, to create a framework that realistically enables other lenders with smaller deposit bases, or even mortgage bankers relying on investor funding, to enter the field. This requires a process that enables these lenders to handle the maturity concerns and resulting cash flow problems associated with these longer term assets.

Portfolio Management

Liquidity analysis includes consideration of current concerns as well as long-term projections. Part of a future oriented outlook is to provide for flexibility in changing portfolio characteristics. This becomes even more important if the portfolio is made up significantly of assets with long maturities, as will be the case for lenders holding DPMs.

The need for portfolio management flexibility could affect the desire on the part of banks to use their funds for long-term mortgage assets versus shorter-term commercial loans. Even the OTP, which has enough assets in other categories to enable it to properly manage its portfolio, will eventually need to consider whether it makes good business sense to increase its asset size in illiquid long-term product. In addition, other lenders facing greater competition for resources will have to consider portfolio management flexibility in their analysis of a business plan that includes housing finance.

Risk-Based Capital Guidelines

The DPM somewhat complicates the issue of capital reserves because it capitalizes a portion of the inflation premium in interest rates, rather than having it paid currently on the growing loan balance. The banking regulators are likely to require the ratio to apply to the capitalized loan balances. Under the current standard variable rate mortgage, the bank is more liquid and can more easily reduce its asset base to meet capital needs. Although not a problem for OTP at the moment, other banks with less liquidity could have to look for other avenues to quickly adjust their portfolio.

Investor Market

Eventually, the OTP will want long-term securities to fund the long-term market-based loans required for affordable housing finance. For other lenders not already offering housing loans, such funding instruments may be critical to enable these lenders to participate in this business.

Currently, the proper environment does not exist in Hungary to meet this need for long-term funding. The legal system was not designed to accommodate all the

various types of securities used to fund long-term mortgages in other countries. The investor community for this type of product--usually insurance companies and pension funds--is still relatively small. Lastly, the market for "long-term" bonds is very new and is virtually monopolized by three-to-five year government bonds which receive "favored" treatment as an investment for the typical institutional buyer of mortgage-based securities.

THE RESPONSE

At this point in the development of Hungary's market housing finance system, liquidity issues appear to have implications that are somewhat prospective. Taken in context with other more immediate needs, solutions to liquidity concerns should be developed in a timely manner that responds more to market demands and encourages the entry of lenders into the field.

Program and Market Opportunity

The GOH draft housing policy paper supports activities that would create the proper environment for long-term mortgage-based securities. This paper contains two provisions directly related to facilitating the development of a secondary mortgage market without specifying how this market should look. One policy statement would require the Government to establish the conditions needed for the issuance of mortgage bonds. The other statement provides for government studies on the possibility of establishing a specialized housing loan institute, one option supported by the Ministry of Finance is a secondary market institution like the US's Fannie Mae.

The investor community is beginning to show signs that there will be an increasing demand for long-term bonds. Although the Government continues to dominate the market, the availability of longer government bonds tests the market and creates receptivity to such instruments. Growth in the insurance industry and promulgation of new regulations that include mortgage bonds as eligible investments suggests a future market for these instruments. At this time, the other traditional mortgage bond investor - pension funds - do not offer the same promise but a long-term outlook indicates that eventually these investors will also have needs for these securities.

Type of Liquidity Facility

Investors in other countries look for risk protection, simplicity, and a liquid market when purchasing mortgage-based securities. If any of these factors are missing, a higher yield will be demanded to offset the omission.

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The credit enhancement proposal described in Annex F in the form of insured mortgages provides a framework for the development of liquidity instruments. By insuring the mortgages, the risk protection could be passed through to the investor. It might be possible for lenders to aggregate these insured loans and use them to back bonds or securities which the market could consider credit enhanced due to the nature of the underlying collateral.

The existence of insurance on the underlying mortgages, however, may not be viewed as sufficient protection by investors. In the above example, the investor would know that the mortgage insurer would cover 70% of the loss. However, the investor would have to rely upon the lender for the remaining coverage and this may be insufficient to entice the investor from more risk-free or higher yielding investments. In addition, this would require the investor to know the creditworthiness of each lender in order to properly assess the value of the bond. To offset these concerns, pool insurance covering the part of the payment not insured by the mortgage insurer might be needed. Alternatively, it may be possible to structure the pool into senior and subordinated tranches with the lender retaining the subordinated portion associated with the 30 percent loss exposure.

Lastly, investors want liquid instruments to facilitate their portfolio management capability. This requires a sufficiently large market. It is easier to create this market if all bonds share a similar name rather than having multiple lenders creating bonds bearing their individual lender names.

To address these concerns, it may be necessary eventually for Hungary to create a conduit that would aggregate the insured loans and issue bonds or securities backed by these loans. This conduit would be responsible for intervening between the investor and the lender to ensure that the lender meets his risk-sharing obligation. The conduit would also provide one name to these bonds to simplify the market. More research is needed to determine whether this conduit can be completely private or whether it will require, as is the case in other countries, implicit or explicit government guarantee.

FURTHER INVESTIGATION

Lender demand for greater access to long-term funds is not expected to be critical at the inception of the Housing Guaranty Program. The creation of a credit enhancement facility and demonstration, through OTP, of prudent and effective lending with a market-based mortgage will first be required to encourage other lenders to participate in the program.

A critical component of the Housing Guaranty Program is to promote competition. To encourage other lenders to participate, the need for long-term

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funding will become increasingly important. For this reason, the Housing Guaranty Program should support the Government of Hungary in its study of solutions to liquidity problems by providing technical advisory assistance. Initiation of such a study is a condition for the second disbursement. The study should result in specific proposals to facilitate funding sources for housing. It should identify and present solutions to legal and market impediments to the creation of a long-term mortgage-based bonds. The analysis should also consider the impact of alternative proposals on the issues noted above that impact the liquidity problem. As examples, the study group will want to consider

- Potential buyers of investments funding DPMs. Investor needs dictate to a great extent the types of instruments used to fund mortgage loans. Because the DPM has particular cash flow characteristics, these must be taken into consideration - possibly by defining the proper investor audience or by resulting in the development of instruments that have different cash flows than the mortgages being funded.
- The impact of risk-based capital regulations. The proposal for a shared-risk mortgage insurance program may provide an opportunity to create a credit-enhanced mortgage security or bond that is treated more favorably by bank regulators. This could result in a larger investor audience consisting of other financial institutions.
- Portfolio management requirements. The need for liquid assets should be taken into consideration when analyzing alternative approaches. In particular, the study should consider whether to back bonds with mortgages insured under the program proposed in the annex on credit risks (Annex G) provides sufficient uniformity for Hungary's developing capital markets or whether it will be necessary to have one or two generic labels on instruments to make an efficient market.

ANNEX I

PROSPECTIVE PARTICIPATING INSTITUTIONS

INTRODUCTION

The success of the Hungary HG-001 program will depend on active participation by Hungarian financial institutions. Currently the Hungarian housing finance market is dominated by a single institution, the state-owned National Savings and Commercial Bank, the Országos Takarékpénztár és Kereskedelmi Bank Rt (OTP). In order to facilitate the development of a more competitive and efficient housing finance system, appropriate incentives should be offered to encourage the entry of other financial institutions and institutional investors such as insurance companies and pension funds into the Hungarian housing finance market.

THE STRUCTURE OF THE HUNGARIAN BANKING SYSTEM

The continued liberalization of the Hungarian financial sector will be critical to the development of a market-based housing finance market. This liberalization process began in 1987 with the creation of the first two-tier banking sector in Eastern Europe, in which the commercial banking activities of the National Bank of Hungary, the Magyar Nemzeti Bank (MNB), were separated from its central banking function and the establishment of privately owned joint stock company banks was authorized. Three new state-owned commercial banks were established which took over the commercial portfolio of the MNB: the Hungarian Credit Bank, Budapest Bank and the Commercial and Credit Bank. In the five years since the Hungarian banking system was liberalized, the banking sector has expanded significantly. Currently the banking system consists of the MNB, 29 commercial banks, of which 12 are banks with foreign ownership participation, 5 specialized institutions and 257 savings cooperatives. In addition, there are 17 representative offices of foreign banks and financial institutions in Hungary.

Despite the relatively large number of financial institutions in Hungary, considering its population of 10 million, the banking market is highly concentrated. The three banks created from the MNB in 1987, along with the state-owned OTP and Foreign Trade Bank, dominate the Hungarian banking market. Collectively, these five large commercial banks control 73 percent of all domestic bank assets in Hungary, about 77 percent of total bank employment and 90 percent of commercial bank branches.

Concentration in the retail segment of the banking market is even greater. Of the large commercial banks, only the OTP, the Post and Savings Bank Corporation and the Commercial and Credit Bank participate to any significant degree in the retail banking market. These institutions account for approximately 80 percent of the retail market. The OTP is the only Hungarian financial institution offering a full

range of retail banking services to the general public, although several other banks have announced their intention to expand retail banking activities. The OTP offers Hungarian forint and foreign currency current accounts and term deposits, commercial, consumer and mortgage loans, credit and debit cards, and ATMs. The OTP is the largest bank in the country in terms of total assets and has the most well developed nationwide branching system. It is clearly perceived as the bank for households and individuals and most Hungarian families have at least one account with the OTP.

Savings cooperatives also serve the retail banking market and are important providers of retail financial services in the markets outside Budapest. These cooperatives have about 1,800 offices serving 2 million members and account for about 20 percent of total household deposits. Because of their generally weak financial condition and lack of management and operational expertise, the savings cooperatives are not as actively involved in the lending market. Approximately 20 percent of the total assets of the savings cooperatives consist of retail loans.

The five specialized financial institutions differ from the commercial banks in that they are authorized to perform only a certain defined set of financial activities. The specialized financial institutions concentrate in agricultural financing, trade finance, leasing and venture capital finance.

THE LEGAL FRAMEWORK OF THE BANKING SYSTEM

The new Banking Act enacted in 1991 established standards for bank establishment, safety and soundness, accounting, financial solvency, capital adequacy and prudential regulation consistent with European Community banking directives. Under the Act, Hungarian banks are licensed as universal banks, with authority to conduct a broad range of financial activities. The Banking Act's stringent capital and safety and soundness provisions have had a significant impact on Hungarian banks. As the tighter standards have been imposed, weaknesses in the Hungarian banking system have been revealed. Bank performance in 1992 was adversely affected as the banks were forced to recognize the imbedded losses in their asset portfolios. Asset quality is the principal concern for the banking system, particularly in the three large banks which inherited the MNB's portfolio of loans to state owned enterprises. Other weaknesses include declining capital adequacy, a lack of retail experience, products and services, lack of modern technology resulting in an inefficient payments system and unreliable accounting, and a lack of well developed banking services delivery systems through branch networks. The weaknesses in the banking system have made some Hungarian commercial banks ineffective competitors, particularly vulnerable to competition from the growing number of sophisticated international banks in Hungary.

While bank performance can be expected to continue to be depressed in 1993 and 1994 as the banks work out of their portfolios of non-performing loans, the ultimate result of strict financial regulation and supervision will be a stronger, more

competitive banking system Hungarian banks are now required to comply with the financial reporting requirement of International Accounting Standards (IAAS), which should create some financial integrity in the banking system, while strict loan loss provisioning and capital adequacy requirements is forcing more rigorous credit underwriting, servicing and supervision

POTENTIAL FOR PARTICIPATION IN THE HUNGARIAN HOUSING FINANCE AND THE HG-001 PROGRAM

At its current stage of development, most Hungarian commercial banks lack the institutional infrastructure, management expertise and experience to become effective competitors in the consumer and mortgage finance markets Therefore, there are few prospects for entry into the housing finance market among the state owned or controlled commercial banks, the international joint venture banks or the private Hungarian banks which have been established since the liberalization of the banking laws As the Hungarian banking market matures, commercial banks seeking sources of stable, low cost deposits and profitable lending opportunities can be expected to expand their retail banking activities This trend is already beginning to emerge in several of the larger commercial banks The losses which many banks have suffered in their commercial loan portfolios have led managements and board to seek less risky lending opportunities If the legal, structural and financial weaknesses of Hungarian mortgage finance can be addressed successfully, these banks may find mortgage lending an attractive business opportunity In a recent newspaper article, the Chairman of the Budapest Bank indicated that his bank would consider offering mortgages, were it not for "Hungary's antiquated land recordation system "

Other institutions which could play a role in the Hungarian housing finance market over the next five years include the country's system of 257 savings cooperatives and the emerging life insurance industry The savings cooperatives have had limited involvement in the mortgage market In 1992, the originated over HUF 3 billion in housing loans, or approximately 10 percent of all mortgages originated in the country During the first four months of 1993, the typical savings cooperative originated about HUF 1 million in housing credit per month With an average loan amount of HUF 400,000, this translates into an average monthly loan volume of only two to three loans per institution

Other private financial institutions traditionally involved in housing finance, like insurance companies and pension funds, are still in their infancy and are unlikely to play any role in the housing finance market for some time to come The reality of the Hungarian housing finance market today and for some years to come is that the OTP is the Hungarian housing finance market and that efforts to liberalize and rationalize this sector must focus initially on OTP

THE STRUCTURE, OPERATIONS AND FINANCIAL POSITION OF THE OTP

The OTP will be critical to the success of the Hungary Housing Guaranty Program due to its dominant position in the Hungarian housing finance market. The OTP also will be the first financial institution to use the deferred payment mortgage instrument. Extensive technical assistance will have to be provided to OTP to develop the policies, procedures, documents and operational systems needed to effectively implement and manage a DPM mortgage lending program. Because of the its current profitability and capital adequacy problems, the OTP may require sufficient financial incentives to fully participate in and support the Housing Guaranty program.

The Role of the OTP in the Hungarian Financial Sector

The OTP is the largest bank in Hungary, based on total assets, and ranks second in terms of total equity. As of December 31, 1992, OTP had total assets of HUF 764.3 billion, which represents almost one-third of total banking assets in Hungary. OTP's market share in 1992 was about the same as in 1991, indicating the bank's ability to retain its market position in a more competitive market environment.

OTP's dominant market position is primarily in the retail banking market. The bank does not hold a significant share of the commercial banking market, since it was only authorized to engage in commercial lines of business several years ago. As of the end of 1992, the bank held 13 percent of all commercial deposits and 7 percent of all commercial credits held at Hungarian banks.

Because of its long history as the government's savings bank, the OTP is the principal retail banking institution in Hungary and is generally perceived as the bank for households and individuals. As of December 31, 1992, the bank held 69 percent of all household deposits, and 73 percent of all HUF denominated household deposits in the Hungarian banking system. The OTP also held 38 percent of all consumer credit outstanding. The OTP's commanding position in the retail banking sector is strengthened by its ability to deliver banking services and products through a well developed nationwide branching system. As of the end of 1992, the bank had over 400 branch offices located throughout Hungary.

OTP's dominance of the housing finance market in Hungary is even stronger. As of the end of 1992, OTP held HUF 162 billion in housing credits, which accounted for 91 percent of all housing loans in the country. The OTP is the only Hungarian financial institution with experience and expertise in lending for housing.

The OTP serves as the principal financial institution for local governments. As of the end of 1992, local government deposits totalled HUF 56 billion and credits to local governments were HUF 12.7 billion, representing 82 percent of all deposits of

local governments in the banking system and 64 percent of all credits extended to local governments by financial institutions. During the year, local government deposits increased by over HUF 14 billion, or 34 percent. Most of the loans extended to local governments were short term loans to cover temporary revenue shortfalls.

In addition to deposit and lending services, the OTP provides other financial management and advisory services to local governments. The OTP also has participated in the establishment of several institutions to serve the needs of local governments and has been in discussions with local governments about the possibility of organizing development banks to finance development projects.

History of the Bank

The OTP was established in 1949 as the National Savings Bank. Its principal activities at that time were gathering retail deposits, extending credit for specific purposes and managing the state's lottery activities. The bank's activities have expanded significantly in the 44 years since its establishment. First, OTP became active in real estate development and sales and in the financing of home purchases. Later the bank was authorized to accept deposits from local governments and hold household foreign exchange deposits. In the 1980s the bank became involved in the Hungarian securities market, both as an issuer and a trader.

The most significant changes in the OTP's activities have occurred since 1989. In 1989 the bank was granted a commercial banking license under which it was authorized to conduct corporate and international banking activities. Like other commercial banks in Hungary, the OTP has a universal bank license which confers the authority to engage in a wide range of financial and non-financial activities.

The 1991 Banking Act required banks to divest themselves of certain non-banking activities, such as real estate development and foreign trade. As a result, the OTP has transferred some of these activities to subsidiary and affiliate companies. The bank is phasing out of its real estate development business and all remaining real estate activities are conducted through a wholly owned subsidiary, Real Estate, Ltd.

Legal and Ownership Status

In 1991, the OTP converted to a public joint stock company. The government of Hungary, through the State Holding Company (AV Rt), owns all of the voting common shares of the bank. In 1992 OTP issued "preference," i.e. preferred, shares to the public equal to 5 percent of its common equity. As of the end of the year, OTP preference shares had a market value of HUF 99 million. In April 1993 the AV Rt offered an additional HUF 100 million of OTP preference shares which will pay a fixed 12 percent dividend. OTP preferred shares are traded in the market and were

recently quoted at 50 bid. Since OTP is perceived as a somewhat more secure investment than many other state owned enterprises being tendered to the public, brokers expect the current tender and any future sales of OTP shares to find a receptive market.

Over the next five years, public ownership of OTP shares can be expected to increase as the law governing ownership of Hungarian banks goes into effect. The law requires that after December 31, 1996, the GOH may not hold more than 25 percent of the outstanding shares of a bank. The law does provide for the possibility that the percent of GOH ownership of a financial institution may exceed the 25 percent ceiling, but in order to qualify under this provision, a financial institution must have been "established to execute a particular financial activity" and a separate act must have been passed which stipulates that the state may own more than 25 percent of the shares. The OTP does not meet either of these tests since it is licensed as a commercial bank, not a specialized financial institution, and no legislation has been enacted to exempt the bank from compliance with the 1996 deadline.

Subsidiaries and Affiliates

As a universal bank, OTP has the authority to invest in a broad range of other financial and nonfinancial firms. As of the end of 1992, the bank had equity investments in 96 other firms totalling HUF 4.2 billion. Almost half of the bank's equity investments are in other financial institutions, including other Hungarian banks, insurance companies, securities brokerages, and leasing companies. The largest investments are in the wholly owned Garancia Insurance Company, Ltd. and the Hungarian International Bank, Ltd.

Financial Performance

Balance Sheet Composition

Preliminary financial data for 1992 indicate that OTP had total assets of HUF 764.3 billion, total deposits and other interest bearing liabilities of HUF 716.9 billion and total loans outstanding of HUF 306.7 billion. The bank's assets and interest bearing liabilities increased at nominal rates of 14.3 and 15.9 percent respectively over 1991, rates of growth which represent a decline in real terms at the 1992 average inflation rate of 23 percent.

The OTP's primary source of funds is household deposits, which represented 60 percent of total assets as of December 31, 1992. Commercial and local government deposits accounted for 15 percent of total assets, OTP bonds and other securities, 6 percent, and refinancing credits from the MNB, 2 percent.

The bank's principal assets are short term interbank deposits, reserves and deposits at the MNB and government securities. As of December 31, 1992, these short term investments accounted for 61 percent of total assets. OTP's high level of liquidity was the result of several factors. 1992 saw a very high rate of growth in household savings throughout the Hungarian banking system and at the OTP in particular. At the same time, the slowdown in the economy reduced loan demand. Tighter credit underwriting standards imposed under the Banking Act also reduced new loan originations.

The balance of OTP's assets are primarily loans to households. As of the end of 1992, credits to households constituted 23 percent of total bank assets and 31 percent of deposits. Loans to businesses and local governments accounted for 9 percent of total assets and 12 percent of deposits.

Profitability and Capital Adequacy

The OTP's profitability has declined steadily since 1990. 1992 profit before provision for risk reserves was HUF 7.4 billion, 39 percent below 1991. The decline in the bank's profitability was due primarily to falling interest rates on government and interbank investments and on the interest rate paid on deposits at the MNB. Provisioning for classified assets also reduced 1992 profitability. The OTP increased its risk reserve by HUF 3 billion, offset in part by its participation in the government's credit consolidation plan.

In its 1992 annual report, the OTP states that it has met all regulatory capital adequacy and liquidity requirements. As of the end of the year, the bank reported HUF 28.5 billion in equity capital, only HUF 550 million higher than 1991. However, a study of the capital adequacy of the largest Hungarian banks conducted by Credit Suisse First Boston (CSFB) for the World Bank show that as of the end of 1992, under International Accounting Standards (IAS) the OTP had adjusted capital of HUF -1.8 billion and a capital adequacy ratio of -0.4%. In other words, based on the CSFB analysis, on an IAS basis the OTP is technically insolvent. At the level of risk weighted assets as of the end of 1992, the bank would require HUF 34.8 billion in additional capital to meet the 8 percent regulatory risk-weighted capital requirement. Therefore, capital adequacy is and can be expected to continue to be the principal problem confronting the bank. Future growth in assets, and particularly in loans, will be constrained by the OTP's lack of capital. In order to improve its capital position, the bank may be forced to restructure its balance sheet by reducing its loan portfolio and shifting assets even more into low risk-weighted government securities and interbank deposits.

Housing Finance Activities

OTP grants housing credit for several classes of loans which are distinguished by the different amounts and types of subsidies provided by the government. These include construction or "self-help" mortgages to households to build or complete their own homes, loans for the purchase of a newly constructed housing unit, "organized resale" loans to finance the purchase of existing units built by OTP's development company and other developers, "private resale" loans to finance the purchase of existing homes, and loans for home improvement and rehabilitation.

Loans for Housing Construction and Purchase

Lending in 1991 and 1992 for housing construction and the purchase of newly built units was far lower than in previous years due to the slowdown in the Hungarian economy and stagnation in residential construction and in the housing market in general. Loans to finance the resale of existing units continued also declined in 1992.

Financing for housing construction and purchase consists of several layers of subsidized and unsubsidized loans to the same borrower on the same property. As discussed in Annex D, the various categories of subsidized credits are based on several variables: family size, anticipated number of children, amount of the loan, and purpose of the loan.

Mortgage loans usually have a 15 year maturity. The current interest rate is 28 percent plus a 1 percent servicing fee. Interest rates are now variable with changes determined by the OTP and the Ministry of Finance. OTP has projected a decline in mortgage interest rates in 1993 as market interest rates continue to fall. The average mortgage loan in 1992 was HUF 275,300 and the average loan-to-value ratio, approximately 28 percent. The maximum loan amounts are very much tied to the requirements placed on various government subsidy programs. Although loan-to-value ratios appear to be very low, the appraisal process is not adapted to determine true market values.

Lending for Home Improvement and Modernization

The decrease in lending for the construction or purchase of new homes was offset by an increase in lending for home improvement and modernization. In 1992, home improvement and modernization lending was the largest category of loan in terms of the number of loans and the total value of credit extended. These loans accounted for 80 percent of all loans originated and 38.6 percent of value of all mortgage credit granted during the year. The loan-to-value ratio on home improvement and rehabilitation loans averaged 54 percent.

OTP Operations and Lending Practices

Risk Management

Due to the economic downturn in 1992, the OTP and other Hungarian banks experienced an increase in delinquent and nonperforming assets. At the same time, the Banking Act imposed strict credit classification and risk reserve requirements. As a result, risk management has become a high priority for the bank. The OTP has made important progress in the last few years in improving its loan origination and servicing procedures.

During the prior period when OTP was virtually guaranteed repayment by the government, the OTP lacked many of the incentives common to lenders in market systems to lend prudently and to manage loans profitably. The shift to market interest rates, the increasing likelihood of borrower inability to repay loans, the imposition of strict banking regulation and the greater discretion given to the OTP to determine what is appropriate lending have had a major impact on how the OTP now approaches the business of mortgage lending.

In response to these changes, OTP has taken several important steps. The bank has tightened its credit and collection criteria and is in the process of revising its credit underwriting manual. A Risk Management Directorate has been established to develop and implement an internal credit classification and monitoring system. The OTP is one of the founding members of the Credit Guarantee, Ltd., a company established in 1992 to guarantee bank loans. Along with other commercial banks, the OTP has joined the credit consolidation system to reduce its nonperforming loan portfolio.

Bank Operations and Systems

Although the OTP has taken these significant steps to improve its risk management policies and procedures, major operational, technological, and staffing issues need to be addressed before the OTP can become an efficient market housing finance institution.

The OTP currently has 12,000 employees working in its headquarters, 22 district offices, 19 county offices and a network of over 400 branch offices throughout Hungary. Of the 400 branch offices, approximately half originate and service housing loans. There are also two computer centers with about 400 employees.

Headquarters is responsible for setting policy, providing management support to the district and county offices, auditing district and county offices, organizing training, and acting as the liaison with the government. The district and county offices monitor the branches. The branch offices have direct contact with the

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customer, providing normal banking functions as well as underwriting and servicing loans

There appear to be great disparities among regional and branch offices on computer equipment. There is also a lack of uniformity in the way business is conducted. Underwriting policies and guidelines are set by headquarters. Recently, branches were given some discretion to disapprove loans. There is no automation of the origination process.

Mortgage Underwriting and Servicing

Mortgage loan underwriting is somewhat minimal because the type of information needed to evaluate a borrower often is not available or is not requested prior to approval. The lack of appropriate information may lessen the credibility of data on the portfolio, such as debt-to-income and loan-to-value ratios. Because the foreclosure and eviction process in Hungary is not effective enough to be a deterrent to nonpayment, OTP requires guarantors. It does not appear, however, that this is required in all cases or that guarantors have ever been used to pay the loan when the mortgagor was in default.

Mortgage loan servicing is managed primarily through automatic withdrawals from checking accounts or automatic payroll deductions. Although payments are due on the first of the month, there is no penalty through the last day of the month. Inefficiencies in the OTP's mortgage servicing system have created a number of problems. Processing of payments is a problem, the computer is a batch operation and thus there is a serious lag time between payment and branch notification. Rate changes are made before the borrower is notified resulting in payment errors. Payoffs are another problem, lack of current information at the branches results in mistakes and delays in releasing liens creates major backlogs.

One of the most important loss prevention procedures is not adequately practiced by OTP - pursuing delinquent loans. This may be because there is very little the OTP can do to enforce its rights. It does send out letters with increasingly threatening statements and charges a 6% penalty fee. However, OTP no longer can automatically use wage garnishment to bring loans current. In addition, the most important "threats" to a borrower to encourage payment - foreclosure and eviction - simply are not practical solutions.

ANNEX J

LENDING FOR INFRASTRUCTURE DEVELOPMENT

THE CURRENT SITUATION

In Hungary, as in other East European economies, the supply of infrastructure has lagged behind economic development. According to some experts the value of deferred infrastructural investment is currently about 900 billion HUF. The new government has had to face an economic recession while undertaking the enormous problems of the transition. During the years since 1989 infrastructure has received increasing attention, but development continues to be plagued by the shrinking in real terms of government budgets and household incomes combined with the fragmentation and complexity created by the process of decentralization.

There is a large gap between water supply and sewage service. 80 percent of settlements have water connections and 17.1 percent have a sewerage system, for households the respective figures are 85 and 42 percent. Water supply is plentiful, while sewage treatment plants serve only 45 percent of the sewage discharged by existing systems.

Gas development grew quickly after the 1960s, and the length of the gas network now reaches 22 thousand km, with 30 percent of the production used by the households. About 42 percent of households have a gas connection, another 46 percent use canned gas. In the last few years efforts have been stepped up to increase gas connections through a special program in which neighborhood associations formed and users, local, and national government share costs. (Similar associations are used for other utilities as described below.)

Of inhabited houses, 99 percent have electrical connections. The road system is quite underdeveloped with respect to percent paved per area compared to western countries. Although the telephone system is notoriously incomplete (12 telephones per 100 Hungarians) and lines are of poor quality, in the last year significant improvements have been made through increased user charges, foreign investment, and the use of telephone bonds.

The Role of Local Governments

Since the decentralization process begun in 1990 and 1991 with the passage of the Law on Local Governments and the Law on the Transfer of Property, local governments have had increasing responsibility for the management and financing of infrastructure.

Before 1986 infrastructure investment was undertaken primarily through an expenditure-controlled system. A local government would develop its investment plan, and the central government would finance those investments that it approved. In this environment little if any attention was given to cost-recovery from users and direct beneficiaries. After 1986 a revenue-controlled system began to emerge, giving local governments more autonomy in decision-making, but less complete funding for investment projects. "Earmarked" and "targeted" subsidies -- which are central grants intended to be added to local funds for centrally-prioritized investment projects -- date from this period. In the last year these two subsidies have decreased, with targeted subsidies already subscribed threefold for 1993 and no money at all available for earmarked subsidies, so that although projects may be "accepted" they will not be funded until next year at the earliest.

In 1990 there were substantial changes in the financial possibilities of local governments, chief among which were that the property that was transferred to them could be sold and they were given the right to levy some local taxes.

Local governments are increasingly turning to loans to finance capital projects. OTP is by far the major lender to municipal governments. Requests for loans to finance water and sewage projects came to approximately 720 billion HUF last year. Conditions for a loan are fairly simple: the local government must have an account with OTP (and 96 percent of them do), and the local assembly must approve the investment and must give OTP the right to garnish directly from the city's account. The municipality may have to provide cash flow projections and an inventory of assets if the loan is large, but since the collateral is the budget (and especially the large central transfers), little emphasis is placed on assessing the project being funded.

The institutional framework for utilities in Hungary is in a period of rapid change. In 1990 the ownership of many utilities was transferred from the central to the local level, but that process is still underway and is resulting in a number of different arrangements. Many aspects of operation, finance, and regulation have not yet been worked out. Public utility companies have their own budgets, operate and maintain public services. Development costs are charged to the municipality. In the case of Budapest, costs associated with more than one district (e.g. mains, treatment plants) are the responsibility of the City while districts own the network and other truly local assets.

In addition to local government financing projects from central subsidies, loans, or other sources, they charge connection fees and other user charges from the affected households. In some instances the local government organizes the development, in others the households undertake utility connections on their own or in concert with other households.

A few entrepreneurial localities undertake investments -- such as installing telephone lines -- in order to attract new households and businesses, by taking on municipal loans up front, and recovering their investment through partial repayment from users and through an expansion in the tax base

Pricing

According to the 1990 Act on Prices, either the local government or one of the ministries has the right to set the highest price for each public utility. In that respect the law only says that the price must include the expenses of efficient operation and the profit required for efficient operation -- without defining efficiency or how it will be monitored. Prices are intended only to finance operations and not recovering capital costs. It can be inferred that at the moment the establishment of the highest price is the subject of heavy bargaining between the public utility company and the given authority. Water tariffs, for example, are now set by the Ministry of Transportation, Communication and Water Management (MTCWM), after receiving proposals from individual water companies. Water companies base their proposed tariffs on a formula based on operating costs and no capital costs, although this January for the first time Budapest proposed a new price which included a small development charge and the Ministry accepted the proposal¹. The local government role in the process is to approve the company's proposal.

Connection fees are determined by the local government according to a cost-based formula (also set by the Ministry) that is only allowed to cover side pipes, which can be a problem where existing mains or treatment plants are already at capacity and funds are not available for capital development. Connection fees for water and sewage usually range from HUF 50,000 to 65,000 per unit. (This might be a quarter or less of the cost of the entire network development.)

Once price-setting authority is transferred, local governments will be in an even more difficult position than the ministries, since it is in their interest on the one hand that the public utility service company owned by them should operate properly at prices which fully cover expenditures, but on the other that local citizens be protected from drastic price increases.

In the transitional period there has already been a serious attempt to cut the subsidies which had been a long standing systematic element in centrally planned economies. Cutting the subsidies has meant a severe tariff increase for consumers. In the water sector, state subsidies began to be lifted several years ago, and consumers went from paying only 10 percent to now paying the full operating cost.

¹ It should be noted that water prices in Budapest nevertheless are the lowest in the nation

Despite the current squeeze on pocketbooks, there is still demand for new development in many areas. Where people have to pay HUF 2000 Ft a month to have trucks collect from septic tanks, they are probably willing to pay something more than 400/mo (the usual sewage fee) to gain access to the sewerage system.

In the past, operating fees and connection fees have been significantly higher for industry than households, but this gap is now narrowing.

Financing Individual Utility Connections

With the decline of state-financed construction, self-help housing has become the chief form of new construction in Hungary. The share of single family housing within total construction, for example, increased from 64 percent to 78 percent between 1988 and 1992, while total construction was halved from 51 to 26 thousand new units. Typically these houses are built on the outskirts of towns on partially serviced sites. Municipal governments sometimes provide assistance through free or cheap land, infrastructure provision, or subsidized loans. Often, however, households must pay for their own connections, sometimes out of the subsidized loans obtained for constructing their house.

Subsidized loans are also available for utility connections for existing housing-- in 1992 OTP issued 109,483 loans to households for utility connections, including the gas program, with an average loan size of HUF 44,000. The subsidies have the same terms as the general repayment subsidy for housing, that is, repayment is reduced by 30 percent for five years, and 15 percent for the next ten years. There is a limit of HUF 50,000 per type of utility, and a total limit of 200,000 per home. When neighborhood associations are formed to pool efforts to financing utility extensions, a 70 percent interest rate subsidy is made available by the central government.

In the past a considerable portion of the cost of public utility development (for the local networks) was passed on to the population by the local councils through these associations, particularly waterworks associations established in certain areas, through which the majority of the funds required for new development were obtained, as that was often the only way for a given region to get access at least in part to utility services, citizens had to join such associations and invest the required amounts. To slightly mitigate the expense, for a few years following the introduction of the personal income tax, it was possible to deduct from the tax base the amounts paid into such associations and used for the development of public utilities, but that opportunity has ceased by now.

HOUSING GUARANTY PROGRAM LENDING FOR INFRASTRUCTURE

HG funds would be made available to participating financial institutions for on-lending to either local governments for infrastructure provision related to housing or to households or developers for utility connections

Complementary technical assistance provided by USAID under a separate effort and by other donors is expected to be underway to also provide advice to local governments on infrastructure finance

ANNEX K
FINANCING STRUCTURE FOR THE AID HUNGARY
HOUSING GUARANTY PROGRAM

INTRODUCTION

The governing considerations for the financing structure to be used in the Hungary Housing Guaranty program (HG) are that it be financially feasible for the Government of Hungary (GOH), that it provide sufficient financial incentives to the National Savings and Commercial Bank (OTP) and other participating financial institutions to induce them to participate in the program, that it comply with all accounting, legal and regulatory requirements and that it support the overall objective of furthering the transformation of the Hungarian financial system. The following discussion presents the general framework for onlending of HG resources. However, the specific onlending terms and conditions for the different types of Eligible Expenditures may vary.

INSTITUTIONAL RELATIONSHIPS

The Ministry of Finance (MOF)

The Ministry of Finance will be the borrower under the Hungary HG-001 and will onlend the Hungarian forint equivalent to Participating Institutions to fund Eligible Expenditures. The MOF will have the responsibility for program implementation and accountability for HG resources.

The National Bank of Hungary (MNB)

The MNB will serve as the agent of the MOF in onlending HG financial resources to participating institutions and will perform the administrative and reporting functions on behalf of the MOF. The specific functions and responsibilities of the MNB and the relationship between the MNB, the MOF, the Participating Institutions and AID will be subject to agreement between AID, the GOH and MNB.

Participating Institutions (PI)

Participating institutions include all financial institutions licensed to conduct financial institution activities or bank representation activities within the territory of the Republic of Hungary. In order to be eligible to participate in the program, an institution must meet certain criteria and must demonstrate the financial and managerial capacity to onlend under the HG financing criteria or fulfill the requirements for other HG financed activities.

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ONLENDING ARRANGEMENTS

The MOF will enter into an agreement with a PI to advance funds in an amount not to exceed the total amount of loans extended by the PI for Eligible Expenditures under the HG program. This agreement would commit the MOF to fund a stated amount of Eligible Expenditures based on loan commitments or loans actually granted by the PI or a projected semiannual or annual budget of Eligible Expenditures. A "forward" funding commitment based on projected Eligible Expenditures would have less administrative burden and expense and would assure the PI that funds would be available when needed. If the forward commitment structure is adopted, a decision must be made whether the MOF should charge a commitment fee. If no commitment fee is charged, a single PI could tie up all the program loan funds available for that year. But if a commitment fee is charged, the "all-in" cost of the financing would be higher, reducing the PI's profitability and the affordability of the mortgage loans being funded.

Another alternative is for the MOF to grant a separate onlending credit directly to the OTP, the PI which is expected to be the principal borrower of HG onlending resources, for some portion of total HG funds available. The OTP would become the implementing agency for that portion of the HG loan and would execute an implementation agreement with AID. The remaining resources would be reserved for a specified period of time for other PIs and would be distributed through the window at the MNB. If the resources set aside for other PIs are not fully utilized, OTP would be given access to these funds under the standard terms and conditions established for all PIs.

Reasonable arguments can be made for establishing a separate credit facility for the OTP. It is very likely that OTP will be the only PI offering DPM loans. Other PIs probably will use the funds for shorter term housing loans, such as home improvement, repair and modernization loans, construction loans to private developers with "take out" financing provided by the OTP or loans to local governments. Because of the interest capitalization which is a central feature of the DPM, a loan or investment used to fund a DPM portfolio may need to be structured on a different basis than loans or investments for other purposes. In addition, there may be few PIs during the initial years of the HG program and having the MNB as an intermediary between OTP and the MOF only adds an additional layer of administrative cost.

OPTIONS FOR STRUCTURING AN ONLENDING FACILITY

The final onlending arrangements will be subject to agreement among AID, the MOF, the MNB and the PIs. Agreement also will have to be reached on the onlending

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structure to be used. Two options for the structure of the onlending facility are under consideration: the standard onlending structure in which HG resources fund a loan from the MOF to a PI and an onlending structure which utilizes HG resources to fund the MOF's investment in subordinated debt issued by a PI.

Structuring the Onlending as a Loan

The Ministry of Finance (MOF) will enter into loan agreements with eligible PIs to extend onlending credits directly or through an onlending "window" at the MNB, acting on behalf of the MOF. The proceeds of these credits will be used to fund loans for housing construction and purchase and other Eligible Expenditures. This is the standard structure used in other onlending programs. Hungarian banks are familiar with this type of arrangement because of their participation in onlending programs funded by the World Bank, the EBRD and other donors.

The loan would be a general obligation of the PI which is not tied to the underlying loans financed by the PI. In other words, the loan would be an unsecured credit to the PI and the PI would be obligated to repay MOF from resources other than the underlying housing loans. The MOF, in turn, would have a general lien against all the assets of the bank.

Issues Involved in Structuring the Onlending as a Loan

Cash Flow Mismatch. Since it is anticipated that a large share of HG resources will flow to the OTP which, in turn, will use these funds along with its own resources to originate DPM loans, the issue of matching the repayment terms of the onlending with those of the DPM is critical. For other PIs, the cash flow problem may not be as serious, since these institutions probably will use onlending resources for housing loans which generate the customary periodic payments of interest and principal.

The problem for the OTP is that the DPM structure itself may cause a cash shortfall between payments on the DPM and the interest payable on OTP's deposits. Repayment of the onlending from the MOF will intensify this problem. Therefore, the repayment terms of the loan from the MOF should match those of the underlying DPM portfolio.

Structuring the onlending to match the cash flows from the DPM raises an issue for the MOF since the payment stream on a DPM type of structure also would not match the debt service obligation of the MOF on the HG loan. While there is no linkage between the HG loan and the loans funded with HG resources, the MOF may be looking to payments from the onlending to PIs to meet the GOH's obligations on the HG borrowing. This should be determined before the final financial structure of the program is designed.

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Liquidity and Capital Adequacy Requirements

Currently Hungarian banks have ample liquidity to fund their lending activities, although most of these funds are very short term. The Banking Act imposes strict liquidity, or "matched book" requirements on the banks which preclude most institutions from extending long term credit. A long term HG-funded loan would provide the funds needed to permit the banks to offer housing loans. However, while a long term loan may resolve liquidity requirement issues, it does not address the issue of capital adequacy.

A loan financing may require the PI to have additional capital sufficient to support the loans funded with HG resources. Under current State Banking Supervision (SBS) risk-based capital regulations, mortgage loans have a 50 percent risk weighting, provided that the external auditor of the PI determines that the property securing the loan is marketable. Therefore, for every \$100.00 of mortgage loans made under the HG program, a PI will need \$4.00 of capital. The capital adequacy of a number of Hungarian banks is strained today because of the implementation of strict banking regulations in 1992. For some banks, this may be only a temporary problem. However, the HG project will be introduced during a time when many banks are undercapitalized and may not be able support new growth in assets.

The additional capital needed to support housing loans made under the HG program may be reduced if the proposed mortgage guaranty or insurance facility is established. Under current SBS regulations, receivables guaranteed by the GOH carry a 0 percent risk weighting and receivables guaranteed by Hungarian financial institutions carry a 20 percent risk weighting in the computation of a bank's risk-weighted assets. If the mortgage guaranty or insurance meets SBS criteria, a PI may be able to reclassify the portion of the mortgage loans guaranteed by the GOH or insured by a government sponsored or owned mortgage insurance facility to a lower risk-weight category, reducing the amount of capital required to support a mortgage loan portfolio. However, it is unlikely that a mortgage guarantee or mortgage insurance will be available until the second year of the project. Furthermore, based on a previous letter ruling of the SBS regarding the state guaranty of "old loans" at the OTP, mortgage lenders may not be granted any waiver on state guaranteed or insured loans from either the capital adequacy or the loan loss provisioning requirements under the Banking Law and State Banking Supervision directives.

Structuring the Onlending as Subordinated Debt

Given the need for additional capital at the OTP and other prospective PIs, an onlending structure in which the onlending is included in regulatory capital may be very attractive. In essence, the onlending will provide the capital as well as the long

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term funding to support Eligible Expenditures made under the HG program. Preliminary discussions of this concept with OTP, MOF and State Banking Supervision officials indicate that onlending as subordinated debt would be the preferred financing structure.

As in the United States and the EC, Hungarian banking law permits certain long term debt instruments to be included as secondary capital to meet the risk-based capital requirements. Appendix No 2 to Act No LXIX of 1991 states that subordinated debt may be counted as "additional elements of capital" if the debt has a maturity greater than 5 years and occupies "the last place in the priority list of repayments before the repayment of the shareholders of the financial institution in the event of liquidation."

Hungarian banks currently are issuing subordinated debt to shore up their capital positions. The maturity of these instruments usually is not more than 7 years. Therefore, the instruments can be counted as additional capital for only 2 years. In contrast, onlending under the HG program will enable the PI to borrow for 25 to 30 years and include the borrowing as additional capital for 20 to 25 years. An example will illustrate the benefits to the PI of a financing structured as subordinated debt. If HUF 100 million is onlent to a PI as 25 year subordinated debt, the PI could count the HUF 100 million as additional capital elements towards its adjusted capital for 20 years. In the last five years the subordinated loan would become a liability of the PI. The PI's adjusted capital will be increased by HUF 100 million which, assuming a 50 percent risk-weight for mortgages, can support HUF 2.5 billion in mortgage loans.

Issues Involved in Structuring the Onlending as Subordinated Debt

Cash Flow Mismatch. Even if the onlending is structured as subordinated debt, the cash flow issues discussed above remain. If a large share of HG resources are used to originate DPM loans, the cash flow generated by the DPMs may not be sufficient to meet the interest and principal payments required on the subordinated debt unless the subordinated debt is structured so that the repayment terms match those of the DPMs being financed. In addition, the PI may have to set up a sinking fund to provide some assurance that the subordinated debt can be repaid when it matures.

Greater Risk Due to Subordination. By definition and regulation, the claims of subordinated creditors must be inferior to the claims of all other creditors. Therefore, subordinated debt creates greater credit risk for the MOF than a senior loan. The institutions most likely to participate in the HG program are not in strong financial condition. If a participating institution is liquidated, the subordinated debt probably will not be repaid. There may be less risk with state-owned institutions such as the

OTP, but as the banking sector is privatized, the default risk will increase. The only solution to this problem is credit enhancement by a third party. This issue should be explored with the MOF before any decision is made about the use of subordinated debt as a financing instrument for the HG program.

ONLENDING RATE AND PI PROFITABILITY

The onlending rate for both the loan and subordinated debt structures could be fixed or floating. Currently interest rates in Hungary are high compared with EC countries. It may be assumed that as economic transformation progresses, inflation is brought under control and the Hungarian forint becomes a convertible currency, interest rates in Hungary will move towards interest rates on the international markets. Therefore, it may be more appropriate for the onlending rate to be a floating rate rather than a fixed rate.

If a floating rate is used, the next issue which must be resolved is the selection of the most appropriate interest rate index. The onlending rate used for World Bank onlending programs is the MNB base rate. The base rate is an administered rate set by the MNB to implement monetary policy which frequently lags movements in market interest rates. In early May, 1993, the base rate was lowered from 20 percent to 19 percent, following the downward trend in interest rates on bank deposits. Recently a World Bank onlending program to entrepreneurs has been criticized because most new businesses cannot cover the debt service on loans at an interest rate of 30 percent or more.

At current mortgage interest rates, an onlending rate of 19 percent may be too high to provide PIs with a sufficient net interest margin to make the financing attractive, especially given the high administrative and overhead costs in the OTP and many other financial institutions. The base rate today is higher than the weighted average cost of funds for the OTP and other prospective PIs. For example, the OTP has projected its weighted average cost of funds for the fourth quarter of 1993, including deposits and bonds, at 12.7 percent. OTP preferred shares issued for compensation vouchers currently have an effective dividend yield of 18.75%. In other words, if the PI borrows HG resources to fund any significant portion of its mortgage loan portfolio, the high cost of this financing may reduce the PIs profitability.

The interest rate charged for onlending of HG resources could be linked to a market interest rate rather than the base rate. Two interest rate indices widely used in debt financings worldwide are the government bond rate and the interbank borrowing rate. Both rates are quoted in the Hungarian press and in MNB publications. Since it is anticipated that the contract rate on the DPM will be

adjusted annually or semiannually, the onlending rate could be adjusted simultaneously based on the one year or six month Treasury bond rate or the 3 month to one year interbank borrowing rate. As of December, 1992, the yield on 360 day and 180 GOH treasury bills was 18 and 17 percent respectively. In January, 1993, the 3 month to one year interbank borrowing rate ranged from a low of 16 percent to a high of 28 percent, with the average at 18.5 percent.

RECOMMENDATIONS

Based on the foregoing considerations, it is recommended that the financing structure for the Hungary HG-001 be as follows:

1. The loans to participating institutions should be offered as either senior or subordinated credits. Subordinated credits should meet all statutory and regulatory criteria for inclusion as "additional items of capital" as that term is defined in the Financial Institutions Act. If the onlending to participating institutions is subordinated, a subordination agreement should be executed between the participating institution and the MOF.
2. For participating institutions where the primary Eligible Expenditure is deferred payment mortgages, the repayment terms of the onlending should match those of the underlying DPM portfolio.
3. The onlending interest rate should be linked to a suitable market interest rate.
4. Consideration should be given to setting up a separate credit facility for the OTP with the OTP as implementing agent.

ANNEX L

POTENTIAL RISKS AND ISSUES

The recommended Housing Guaranty Program is dependent upon certain actions to be taken by the Government of Hungary. If these actions are not taken, then the Program can not proceed as anticipated. There are also market changes and realities that could impact Program success. The most critical concerns are

- Improvements in the foreclosure and eviction process. The Government plans to introduce an improvement in this process but it does not have control over its passage. The Government recognizes that even if this proposal passes, it needs to eventually take more steps that create an efficient process and it also can not ensure at this time what this will look like and whether it will pass.
- Movement towards a more efficient subsidy system. These changes are also dependent upon future political uncertainties. Although the Government can commit to working in this direction, it can not ensure results.
- Implementation of a mortgage insurance program. This program may require legislative approval which can not be guaranteed by the Government. It will also have serious start-up costs and potential budgetary impact in the future if premiums are not correctly assessed.
- Unwillingness of other lenders to participate in the program. There are reasons other than those addressed in the Housing Guaranty Program that deter lenders from entering the housing finance area, such as start-up costs and other more profitable demands on resources. In addition, those lenders interested in the program may not be credit-worthy.
- Lack of investors in long-term financing instruments. Although insurance companies are growing, there is no guaranty that they will be interested in these investments. In addition, the type of investment dictated by the cash flow of the DPM may not be attractive to the long-term investor. If funds mobilization is critical then the lack of investors is a serious potential risk.
- Accounting, capital and other regulatory issues relating to the DPM. Loans with capitalized interest have accounting and capital reserve implications that could discourage their use. In regard to taxes, the capitalized interest is considered to be current income and thus recognizes current payment of taxes on accrued profits. Also, if a liquid secondary market does not arise, bank management and regulators may

have concerns about funding long-term mortgages such as DPMs on a funding base of deposits

- Worsening economic conditions A continuing decline in real wages would mean that payment burdens on borrowers could rise over time, increasing the likelihood of default Higher unemployment will put pressure on the Government not to improve eviction procedures

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