DEVELOPMENT OF A SUSTAINABLE MARKET FOR HOUSING FINANCE IN ARMENIA:

FEASIBILITY STUDY AND PROJECT DESIGN

Prepared for

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The team met with some 45 individuals during the fieldwork to obtain information and insights about the workings of Armenia's mortgage sector and financial markets. In addition to meeting with team members, many private bankers also attended one or more of three roundtable discussions on minimum quality standards and contract savings. The names of persons with whom we met and who attended roundtable discussions are listed in Annex 8. These individuals were cooperative, open, and informative, and we are grateful to them for their time and good ideas.

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ABBREVIATIONS AND ACRONYMS

ALM	Asset-Liability Management
AMD	Armenian Drams
ARM	Adjusted rated mortgage
AUA	American University of Armenia
CBA	Central Bank of Armenia
CBATC	Central Bank of Armenia Training Centre
CIS	Commonwealth of Independent States
CSSH	Contractual Savings Scheme for Housing
CTC	CBA Training Centre
EBRD	European Bank for Reconstruction and Development
FBCF	Financial Banking College Foundation
GAF	German-Armenian Fund
GAF-M	German-Armenian Fund - Mortgage Project
GAF-SME	German-Armenian Fund - Small and Medium Enterprise Project
GDP	Gross Domestic Product
GOA	Government of Armenia
IFC	International Finance Corporation
IPC	Internationale Projekt Consult GmBH
KfW	Kreditanstalt für Wiederaufbau
LF	Liquidity Facility
LTV	Loan-To-Value
MBS	Mortgage Backed Securities
MDGs	Millennium Development Goals
MoFE	Ministry of Finance and Economy
MQS	Minimum Quality Standards
NBU	National Bank of Ukraine
OECD	Organization for Economic Co-operation and Development
OTI	Overall debt to income ratio
PB	Participating Bank
PEP	Private Enterprise Partnership
PF	Pre-feasibility Study
PMU	Project Management Unit
PTI	Payment to income ratio
TA	Technical Assistance
UAB	Union of Armenian Banks
UCO	Universal Credit Organization
UI	Urban Institute
UNECE	United Nations Economic Commission for Europe
USAID	U.S. Agency for International Development
VAR	Value-at-Risk

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EXECUTIVE SUMMARY

The Government of Armenia (GOA) has requested that KfW take the lead among donors in the development of the housing finance sector, including fully integrated primary and secondary mortgage finance markets. In preparation for this development process, KfW commissioned an initial, pre-feasibility study to assess the current state of the market.[1] That study concluded with several possible strategies for assistance to the sector, including a line-of-credit for refinance, support for a contract savings scheme, and support for a secondary market operator. This report is a full feasibility study of the line-of-credit proposal, but also proposes a small program of technical support for the contract savings scheme and secondary market development, as well as for the refinance window.

Summary of Proposed KfW Program

This report proposes that KfW supports the further development of the residential mortgage sector in three ways.

1. Funds and technical assistance would be provided to the GOA to create a "window" at which qualified mortgage lenders, both banks and non-banks, could come to refinance their mortgage portfolios. This should greatly facilitate the overall growth of the mortgage market through encouraging longer maximum terms for loans, heightening the degree of competition, and easing the transition to the use of Armenian drams (AMD) in such lending. It will also help pave the way for the development of capital-market funding opportunities in the future.

2. Technical assistance would be provided for creating a training course in mortgage lending and designing and implementing the use of Minimum Quality Standards (MQS).

3. Technical assistance would be offered to lenders who wish to consider the creation of contract savings schemes for housing.

Summary of Background Conditions

Armenia is steadily moving up the development curve in the housing finance sector. In tandem with Russia and Ukraine, but at least 5 years behind the Visegrad transition countries, Armenians are becoming able to augment their ability to acquire better housing through tapping into formal sector credit. This will not only mean improvements in the size and quality of newly purchased houses but more rapid upgrading of existing flats and houses, a more dynamic private construction market, and a profitable, relatively low-risk sector for growth in bank lending and potentially in capital market activities.

Supported by favorable macroeconomic conditions and continued strengthening of the banking sector, the mortgage market in Armenia is growing quickly. The stock of loans is estimated by the Central Bank of Armenia (CBA) to have risen 154% during 2003 and another 70% in 2004, to about USD 13 million as

[1] "Pre-feasibility Study of the Housing Finance Market in Armenia," Urban Institute for KfW, Washington, October 2004.

of April 2005. This growth is related to changing terms on offer as well growing acceptance of the idea of borrowing for housing. As of early 2003, the typical terms were a maximum LTV of 50%, an interest rate of 18% and a term of 3 years. As of mid-2004, the typical rates and LTV were similar, but the most common maximum term had become 5 years. Currently, a rate of 14-17% is typical and a rate of 12% is on offer to good customers by two lenders, but the maximum maturity remains at 5 years for most lenders.

The level of competition in the sector is set to rise significantly in the near term. With this competition and rising consumer demand, it seems likely that rates will consolidate in the 12-14% range and perhaps decline further to the range of 10% as margins shrink. But more important for the evolution of the market is the maximum term. An extension of the term to 7 years from 5 years boosts maximum loan amounts by 26%. A further extension to 10 years from 7 years yields another 23% increase for a total of 54% relative to the 5-year term.

It is difficult to say, in the absence of intervention, when and if the maximum maturity will be commonly extended to 7 years, much less 10 years. Two lenders are already offering 7 years, based on their special advantageous funding situation. But banks facing more conventional funding constraints, i.e., relatively small and unstable amounts of term deposits, seem to be cautious about competing in this fashion. However, banks in Ukraine, with somewhat similar characteristics, including mortgage interest rates, are already offering terms of 10-15 years (at a small rate premium).[2]

Such conditions are possible in Armenia as well, once the full effect is felt of the program for strengthening the banking sector being pursued by the CBA and the GOA. With the establishment of higher capital levels, deposit insurance, more transparent governance, and less self-dealing, confidence in the sector should be restored and it should capture a larger share of financial savings. However, in the intermediate term, there should be a major role to be played by a program of refinance to accelerate these market developments. *Indeed, the immediate extension in term from 5 years to 10 years would be the single most important impact of the program.* In addition, though, the mortgage market will benefit from further strengthening of its own standards and legal and procedural infrastructure so as to not to run into crises after its initial period of expansion. Finally, there may be an eventual need for access to some capital market funding, both to support further extension of maximum maturities and to develop the capital markets for purposes of investment by pension or investment funds.

All of these market expansion steps would be supported by the proposed program of the KfW.

Based on such favorable conditions and the presence of the KfW refinance window, and patterns of growth in demand similar to that experienced in other transition countries in Central and Eastern Europe, the team has projected the further growth in the level of outstanding housing credits to about USD 40-60 million by the end of 2008.

[2] Typical terms in Kyiv are 14-15% for 5 years and 15-16% for 10-15 years, all in USD. It must be noted that the ratio of banking assets to GDP is much higher in Ukraine (bank assets and term deposits have been growing at over 50% a year for several years) and the geo-political stability may also be perceived to be higher.

Policy Aspects of the Refinance Program

As currently foreseen, the refinance program would receive a disbursement of 6 million euros in the 2005-2006 round of funding, to be utilized in 2006-7. This could be followed up by another round of funding of perhaps another 6 million euros in the next bi-annual round of funding. The general strategy is to use these funds to create an ongoing pattern of refinancing, both in 2006-8 and later, that promotes several important longer-term policy goals. They include:

1) Expansion of the use of AMD in mortgage lending
2) Extension of the maturity of mortgage loans
3) Flexibility in the loan interest rate
4) Adherence with a set of Minimum Quality Standards (MQS)
5) Expansion of the offer of housing credit outside of Yerevan
6) Targeting to relatively moderate income households
7) Laying the foundations for a secondary market

It is recommended that these multiple goals be sought over time, in a phased manner. The phasing would not follow the pattern of authorizations from KfW, but rather some other pattern of more frequent tranches (probably every 6 months). The objective would be to have most or all goals met by the start of the last tranche from the second authorization.

One of the most immediate challenges is that the lending be in AMD. As of April 2005, only 2.5% of the outstanding stock of residential mortgage loans were denominated in AMD and almost all the rest is in USD. However, it is a basic policy of the CBA not to on-lend in anything other than AMD, including within this project. Fortunately, the longer maturity being made possible by this program will provide an incentive to both lender and borrower to shift this practice.

Only 2 lenders are currently offering a term as long as 7 years. The next big step would be to a 10 year term. There are reasons for banks to be concerned about taking the step from 5 to 7 or even 10 years, but, because they are comfortable with offering 5 years, then they should be able to offer 10 years with the backing of refinance for 5 years from this program.[3] Moreover, if most lenders are eventually able to carry a term of 7 years from their own funds, the period of refinance could be dropped to 3 years and the available funds re-circulated significantly more frequently.

There is a question of whether it may be necessary to push for only one of two key goals, AMD lending or 10-year lending, at the very beginning. At this point, it is the judgment of the team that the project can proceed toward both goals simultaneously. As noted above, borrowers should have greater incentives to borrow in AMD if offered a longer term as a result. Moreover, the share of the deposit base in AMD should receive a boost from the higher coverage that AMD deposits receive under the new deposit insurance scheme, as well as an aftermath of the last year or more of appreciation in the AMD.

[3] As discussed in Section 4, if lenders are concerned about funding the later years in the life of a 10-year loan, the refinance will specify an option to the lender to receive a new loan for the amount of the principal oustanding on the original pool of loans for another 2-3 years.

Another factor in the choice of term of the funding is that of the choice of fixing the interest rate on the end-loan. So far, housing finance in Armenia has been mostly with rates fixed for the full term of the loan. The CBA wants to shift this pattern of lending, to protect the banks if there is a rise in rates and those borrowers who cannot prepay if there is a significant decline. Such a shift also becomes more urgent if the term of the loan grows to 10 years and the currency shifts to AMD.

The team proposes that this be an area where standards shift over the course of the project. The earliest refinancings would require some degree of re-set, but perhaps just matching that of the term of the refinancing, which would be at a fixed rate for 3 or 5 years. For example, the rate could re-set after the 3 or 5 years to the rate that the bank is charging at that time on new loans of term of 5 years or more.[4] In later refinancings, it may be appropriate to push for rate resetting to follow that on the main source of funding, such as term deposits of 1 year.

Another important goal of the project is to see the spread of appropriate MQS throughout the lending sector. It may be possible to go immediately to such a goal. The exact MQS are still unsettled, but there is a good prospect of agreement on a reasonable set.

It is likely that, given the number of other market innovations that are being pursued through this project, it is inappropriate to further require lenders to take on an additional burden with respect to trying to extend lending specifically to outside of Yerevan or to lower-income borrowers. This does not mean that this cannot be pursued at a later time in the project. Meanwhile, there does not seem to be any problem with seeking the more modest goal of <u>not</u> refinancing loans made to truly high-income households through a simple screen of a maximum amount of the loan. The IFC applies a cap to its program of refinance with one bank of USD 30,000; this, combined with a typical 50% LTV ratio, seems to capture almost all middle-class housing in Yerevan. The limit can be moved up or down as the project progresses, either to reflect increases in housing costs or to more narrowly focus the resources, if the funding of the mainstream market is already well served.

All major counterparts and donors were supportive of the idea that the refinance window be designed to "bridge" from the current situation of total reliance on bank deposits for funding to a future where longer-term wholesale investment funds would be available as well, drawn from the domestic capital markets. There are at least six different approaches to tapping the capital markets. It is concluded here that only two are likely to become popular in the near future in Armenia, mortgage bonds and the operation of a liquidity facility. As in the case of some other parameters of the project, the refinance window may move in the direction of these characteristics progressively, not from the start.

Operational and Product Design Aspects

It is recommended that the broad operational model of the refinance window be similar to the one employed in the German-Armenian Fund (GAF) SME program. It is designated herein as the GAF-M program. But there are some significant differences recommended for the mortgage program.

[4] In other words, if the bank is currently charging 14% for loans of 5 years, and in 2010 it is charging 10% for such loans, the rate would fall to 10% for the last 5 years. This would nudge the market toward a pattern of rate re-sets every 3 or 5 years, as is practiced in Canada and, to a significant extent, in Germany.

Under the GAF-SME program, the borrower is the Central Bank of Armenia (CBA), and the Government of Armenia, through the Ministry of Finance and Economy, provides a guarantee of repayment. The 40-year Euro loan carries an annual interest rate of 0.75 percent. On-lending is in AMD with CBA taking the exchange rate risk.

The GOA has not determined who the borrower will be for the mortgage program, the options being the CBA and the MOFE. The project team strongly recommends that the CBA again be the borrower, with the Government of Armenia providing the repayment guarantee. There are four reasons for this recommendation.

1. *The GAF-SME program has performed very well.* The relationships among the participants, including GAF and KfW, are well established and running smoothly.
2. *Management of the foreign exchange risk associated with the loan.* The CBA has an efficient mechanism for handling this risk and is willing to take it.
3. *Influence of the PMU on participants.* Participating banks understand the central role that the CBA plays in the GAF and that directives from GAF are consistent with CBA policy.
4. *Start up cost and time*. The GAF is running efficiently and operating a very similar program.

GAF will be the executing agency, i.e., the PMU. As in the GAF-SME program, the GAF-M will focus on key functions and have a small staff. The project will engage a consultant who will also have responsibilities in project implementation.

The team envisions the GAF-M program follow the first two stages of the selection process employed for the GAF-SME program. The stages were (1) examination of the lender's financial stability and (2) examination of the bank's interest in and capability for participating in the program.

There is a significant difference between the SME program and the mortgage one with respect to the selection of Participating Banks (PBs). The SME program was innovating an important and difficult new product and thus was looking for a few PBs that would commit significant efforts on their part and receive significant hands-on consultant support in return. The GAF-M program is primarily extending the range of an existing product, residential mortgage lending. Moreover, it wishes to encourage greater competition in this sector. Thus the goal of the selection process is primarily to eliminate any banks viewed as too weak in this sector to maintain quality, not to narrow the focus to only the strongest players.

Thus, the GAF-M program would be open to a relatively large number of banks, perhaps a pool of 10-12 lenders who seek and receive general approval. Because of this, it is possible that the amount of funds being sought at any given time could significantly exceed the available funds. How much need there is to ration access to the funds will depend on how "burdensome" the policy requirements are for each tranche. The need to ration will also depend on the degree to which the funds are "underpriced."

Two options for allocating GAF-M funds are examined. One option is to use an auction process that would direct the funds to those who most highly value them. Since government debt is auctioned, the process is highly familiar. A bank would obtain a commitment for a block of finance and have 120-180 days to use it. Auctions could be held every 3 or 6 months.

The second option is for GAF to have a “window” where the interest rate on loans available from GAF for refinancing qualifying loans is posted every 3 or 6 months. A PB can apply for and obtain a commitment prior to issuing the end loan (or can bring loans made earlier that have not been “refinanced” already). To avoid allocation entirely on a “first-come, first-served” basis, individual PBs would face limits on their access to commitments each period, but these would change over time if the allocations reserved for other PBs are not drawn down.

In both cases, a bank obtains a commitment for finance to be provided after qualifying loans have been originated and actual disbursement of refinancing would take place at the end of the calendar month that the commitment is used.

The distinct advantage of the window option to banks is that it avoids the uncertainty about being able to use commitments being bid for in an auction format. In practice, PBs can either simply make the loans and then apply for a commitment or draw down a limited amount of commitment and see how many end loans they make. Both perspectives minimize the key uncertainty associated with program: whether mortgage borrowers will be interested in taking loans that are quite different from those now widely accepted, i.e., in AMD for 10 years with a variable interest rate.

Another important difference between the GAF-SME and GAF-M programs is that, under the GAF-M, banks and universal credit organizations (UCOs) must repay their loans when they are due, i.e., the loans will not be rolled-over as under the GAF-SME program. This means that the program will be able to use the reflows from its 3-5 year loans for additional lending to banks and UCOs, with the terms of the lending being adjusted as conditions require and permit. Further, in time the program format may even change. For example, it may be that in five or six years the Supervisory Council will decide that it should use the available funds to purchase early covered mortgage bonds to help establish a market for such bonds.

Supporting Measures

The most important supporting measure would be a training program. The team believes that with the risks and developments that are bound to emerge in the next years in the banking sector and in housing finance in particular, all lenders should be eligible for and would benefit from a more co-coordinated approach to technical, financial and management training. The team recommends that a training concept should comprise the following elements:

- An established institution should house the training courses so that training can be offered on a sustainable basis. This institution should meet certain standards and possess appropriate equipment to facilitate the learning process.
- The concept should emphasis the training of trainers so that the programs become independent of external help and to help ensure that the institution is self-sustaining.

Another and closely related central element in the supporting measures is support for the adoption and evolution of minimum quality standards (MQS) of underwriting and servicing. The successful application of MQS in Armenia, however, requires broad acceptance within the financial community. Therefore, the team discussed with the banks the current lending practices in the country. These discussions formed the basis for the MQS Manual, which is also a part of the feasibility study. Technical assistance associated with the project will need to educate lenders about them and seek input as to possible modifications.

Part of the pre-feasibility study considered the possibilities for an effective and stable contractual savings scheme for housing (CSSH). This report recommends technical support for CSSH that takes the form of an open system in order to avoid the potential difficulties and hazards of a closed system. The team also recommends that CSSH should be open to all commercial; banks, not just within specialized institutions.

The team does not recommend the introduction of a savings bonus (public subsidy). However, it may be worthwhile supporting the banks that operate such a scheme in appropriate but indirect ways, such as (1) lower capital adequacy requirements for CSSH loans, (2) lower minimum reserve requirements for CSSH savings, and (3) an increase of the deposit insurance coverage specifically for this product.

The consultants responsible for training and for implementation of the initial rounds of refinance may be called upon to provide policy advice to the CBA or the PMU. The on-site personnel are not intended to be prepared to offer such advice in depth, but the project may want to consider such a capability to reside somewhere within the consulting entity, or available through sub-contract. Alternatively, another donor may wish to offer such capabilities.

Activities of Other Donors

The Feasibility Study team met with three donors who are actively interested in development of the mortgage finance market in Armenia – IFC, EBRD, and USAID. All were familiar with KfW's work in the mortgage sector in Armenia and recognized its lead role assigned to it by the Government of Armenia, including the assessment of the mortgage market for the Pre-feasibility Study of 2004. They are also aware of the SME loan program through the GAF, and are open to future collaboration through that vehicle, either through coordination of technical assistance and training or through committing funds to leverage the outreach of KfW's program in terms of refinance or supporting measures.

Support for Secondary Market Development

The specific goal of this proposed project is the development of a strong *primary* housing finance market. However, this project is being designed within the context of KfW taking the lead among donors in the long-term development of a sustainable market in housing finance in Armenia. An important part of any long-term vision for housing finance is the potential for use of funds drawn from the capital markets. This use of the capital markets has become referred to as "secondary market" finance, in contrast to the "primary" market of lender origination and direct funding either out of capital or deposits.

There are three significant conclusions drawn in this report about the role of capital markets in housing finance in Armenia.

First, it is unlikely that lack of access to capital markets funding will slow down the growth of housing finance in Armenia, at least for the next 3-5 years or until the share of long-term loans in banking assets exceeds 10-20%.

Second, covered mortgage bonds are probably the most viable of the mortgage securities with which to launch such access to the capital markets for individual lenders.

Third, all types secondary market operators have problems, including the extra costs involved in going through another institution. Moreover, all state-sponsored secondary institutions have the potential of being re-directed into a more distortionary mode of business. Of the three alternative types, (1) liquidity facility, (2) central mortgage bank, and (3) central securitzing agency, a liquidity facility has the lowest intrinsic risk and is the least likely to be misdirected.

Legal Component of the Feasibility Study

There is a legal component of this Feasibility Study intended to assess the existing legal framework for mortgage finance in Armenia, identify gaps and weaknesses in the laws, and advise the Government of Armenia on areas where improvements or additions are needed, both in primary market laws and in the legal framework necessary for development of a secondary market for mortgage funding. All of these issues are dealt with comprehensively in a separate report, *Legal Report and Advice to Counterparts (September 2005),* prepared by the legal experts on the Feasibility Study team. An overview of the legal report's findings and recommendations is contained in this report.

Proposed Program Timeline

How might the GAF-M program develop over the next several years? The first major benchmark will be the conclusion of the relevant agreements between Germany and Armenia. Our understanding is that the goal is to complete these agreements by 31 December 2005.

This agreement would encompass an initial authorization of 6 million euros in capital for the GAF-M and another 1.5 million euros to fund the consulting services to implement the program and to deliver supporting measures. Presumably, the consulting services would be procured within the first 6 months of 2006, and the project started by 1 July 2006. Under such a scenario, it is optimistic but feasible that the first tranche of refinance could be offered by 31 December 2006.

The proposal here is that the first tranche include no more than 50% of the first authorization, i.e., 3 million euros. It would be followed up within another 6 months by a second tranche of another 3 million or less. If there is less demand (or take-up of commitments within 6 months), there could be a third tranche out of the first authorization. These funds would probably be offered with bullet repayment after 5 years (in this way, structured like a mortgage bond), with the reflows starting in 2012. However, reflows would be reduced to the degree that lenders take up an option to renew GAF-M funding for another 3 years up to the amount of the remaining principal on the originally refinanced loans.

By mid-2007, there would be an opportunity to conclude an agreement for a second authorization out of the 2007-8 funding cycle for an additional amount, perhaps another 6 million euros. These funds would come on stream in early 2008 and be used up by 2009. By the start of these later tranches, it should be clear whether refinancing for only 3 years is sufficient to support end-loans of 10 years. If so, such shorter cycle funding would permit significant reflows and thus additional tranches as early as 2011.

This timing raises the issue of whether lenders will be willing to keep offering 10-year loans during the period when there will be no significant additional refinance (probably in the years 2009 and 2010). Our guess is that the banking sector will have evolved by that time, the lenders become more confident in their mortgage product, and that they will be prepared to offer 10-year terms after two years of doing so with the support of the GAF-M program. If so, the issue for the GAF-M Supervisory Council will be what directions to take the program with the reflows coming in the next several years (possibilities include targeted lending at below market rates and lending for rehabilitation of common areas).

The supporting measures would be implemented in 2006-7. The MQS must be settled relatively soon under a consulting agreement, to enable the lenders to adapt their forms and procedures. The training would include explanation of the MQS, as well as the full range of other topics related to mortgage finance, and would start up by the end of 2006, and perhaps carry through 2007. Work with lenders on CSSH would occur during the same period.

What are appropriate indicators of the success of the program? For this program, most of the measures of success are very tangible. If lenders adopt the MQS and accept all of the other terms of the refinance, and draw down the full amounts of the authorizations, the program will have been largely successful. This would imply a high degree of standardization of mortgage lending, an extension of the maturities to 10 years, and the adoption of the AMD as the standard, at least for these longer-term loans.

It is possible that such success could be achieved in the area of refinance and yet other areas not be so successful. It may be problematic finding a home for the training courses that will be self-sustainable into the future. It may be necessary to compromise on certain MQS initially, and only gradually move toward standards acceptable in the secondary market. It is also possible that lenders will still hesitate to lend for 10 years and push loans in AMD, outside of the support of the refinance program.

With respect to the development of a secondary market, the program can only do so much. This report comes with proposals for legal infrastructure to support the growth of the secondary market, but the adoption of such laws and the growth of the overall capital markets are beyond the scope of this project. In any case, it should be counted as an additional real success if the refinance program is able to evolve its parameters over time such that the viability of secondary market funding is truly tested.

The main risks to the program are negative shifts in the demand for housing finance due to adverse macro-economic or geo-political shocks. Even so, these will pass eventually, and the program should be able to get back on track (although the momentum created by the supporting measures may have been lost).

Another main risk is that the public is highly averse to borrowing in AMD. Unfortunately, the recent rapid rise in the AMD relative to the USD has rewarded those (almost all) who have borrowed in USD. Moreover, USD loans may remain cheaper than AMD loans. There is no guarantee that these preferences can be reversed promptly, although there are good reasons to think that they can be.

It is highly unlikely that the refinance will not be taken up by the banks, at least on some terms. That is the advantage of being able to set the rate on the funds according to market conditions and the degree to which the funds come with policy “burdens”. At some rate, at least some lenders will be willing to push longer-term loans in AMD with more stringent MQS and so on. The Supervisory Council is expected to be more active than in the GAF-SME program in adjusting the parameters of the program in ways best attuned to market conditions and program goals.

1. Introduction

Armenia is steadily moving up the development curve in the housing finance sector. In tandem with Russia and Ukraine, but at least 5 years behind the Visegrad transition countries[1], Armenians are being able to augment their ability to acquire better housing through tapping into formal sector credit. This will not only mean improvements in the size and quality of newly purchased homes but more rapid upgrading of existing flats and houses, a more dynamic private construction market, and a profitable, relatively low-risk sector for growth in bank lending and potentially capital market activities.

The Government of Armenia (GOA) has requested that KfW take the lead among donors in the joint development of this sector, including fully integrated primary and secondary housing finance markets.

In preparation for this development process, KfW commissioned an initial, pre-feasibility study to assess the current state of the market.[2] That study, conducted under the lead of the Urban Institute of Washington D.C., concluded with several alternative strategies for donor assistance to the sector. This report is a full feasibility study of a specific set of initiatives to be contemplated by the GOA and the KfW.

1.A Summary of Proposed KfW Program

This report proposes that KfW support the further development of the residential mortgage sector in three ways.

1. Funds and technical assistance would be provided to the GOA to create a "window" at which qualified mortgage lenders, both banks and non-banks, could come to refinance their mortgage portfolios. This should greatly facilitate the overall growth of the mortgage market through encouraging longer maximum terms for loans, heightening the degree of competition, and easing the transition to the use of AMD in such lending. It will also pave the way for the development of capital-market funding opportunities in the future.

2. Technical assistance would be provided for creating a training course in mortgage lending and implementing the use of Minimum Quality Standards (MQS). The course would be made widely available initially and then attempt to become self-sustaining as part of the curriculum at a local training institute. Adherence to the MQS would be part of the requirements for refinance.

3. Technical assistance would be offered to lenders who wish to consider the creation of contractual savings schemes for housing.

The report is structured as follows:

- Section 2 examines the current state of the housing finance sector, based on several other reports and the recent fieldwork.

[1] Czech Republic, Hungary, Poland, and Slovakia, known as the Visegrad Group, or V4.
[2] "Pre-feasibility Study of the Housing Finance Market in Armenia," Urban Institute for KfW, Washington, October 2004.

- Section 3 looks ahead as to how the sector is likely to develop, especially what will be the overall level of activity. This section draws heavily on the authors' experiences with housing finance in the many other transition countries that have gone down this path before.
- Section 4 examines the policy issues related to designing the refinance program.
- Section 5 develops further the details of how the program would be operationalized.
- Sections 6 considers how the "supporting measures" related to MQS, training, and contractual savings schemes would best be organized.
- Section 7 reports on the perspectives of other donors on this sector and the proposed project.
- Section 8 looks beyond the current horizon toward how this program would support development over time of a secondary market funding capacity in Armenia.
- Section 9 summarizes the findings in the "Legal Report and Advice to Counterparts" that is a separate deliverable under this assignment.
- Section 10 describes a timeline for implementation, indicators of success and the main risks to that success.

2. RECENT DEVELOPMENTS AND CURRENT CONDITIONS

The fieldwork for this study was completed in June 2005. The fieldwork for the pre-feasibility study (PF) was completed in mid-2004 and built upon an earlier study of the entire housing sector completed in early 2003 by the United Nations Economic Commission for Europe (UNECE).[3] Both of these earlier studies should be referred to for overview discussions of the history of Armenia's economy since the break-up of the Soviet Union in 1991 and for detailed analyses of the nature of the housing stock, the workings of the housing market, and the first stirrings of housing finance after 2000.

In addition, USAID commissioned an extensive assessment of the entire financial sector, completed in late 2004.[4] That assessment captures the acceleration in banking sector development, including the housing finance sector, that was occurring in 2004 and these findings will also be referred to throughout this report.

Key factual and policy observations of each study are summarized here as part of the introduction to this feasibility study and project design.

2.A Findings of Recent Studies

All three studies note the steady and relatively high rates of economic growth that have existed since the economy started to recover in 1994. Since the low-point of 1993, real economic activity (as captured by official measures) has more than doubled, led by recovering output in some industrial sectors

[3] "Country Profiles on the Housing Sector: Armenia," UNECE, Geneva, 2004.

[4] "Financial Sector Assessment of the Republic of Armenia," Emerging Markets Group, Ltd., for USAID, Washington, January 2005.

and high levels of foreign assistance and remittances from a new diaspora of Armenians, especially throughout the countries of the former Soviet Union.

These favorable economic conditions have permitted some households to improve their housing situation. But the UNECE report finds that the general level of housing quality is often very low, even for urban dwellers. As of 2002, only 41.6% of urban units are reported to be equipped with basic housing amenities (kitchen, cold water, toilet with draining system and bathroom).[5] For rural housing units this rate is only 14.2%. Moreover, the common areas of apartment buildings are reported to be often in very poor condition, with doors and window frames having been removed to be burned as fuel in the aftermath of the collapse of the district heating systems.

The housing stock is also burdened with a problem common to the CIS countries, where the basic infrastructure of older buildings has been, and remains, neglected, due partly to continuing public ownership of the common areas of multi-flat buildings. The UNECE report (p. 12) notes that 75% of the multi-unit housing stock was built before 1980 and therefore needs significant renovation of the basic systems. Moreover, routine maintenance has been even more under-funded since 1991, thereby shortening the life of many building components.

In addition to these usual ills of Soviet-era housing, there are special market conditions created by the earthquake in 1988, the presence of partially completed structures intended to re-house some of those who lost their home, and the presence of a significant group of refugees displaced by the friction between Armenia and its neighbors.

On the other hand, what might have been a situation of severe shortage of housing has been ameliorated by the emigration of so many Armenians that sufficient space has been freed up to permit the data to show an expansion in the space per person (UNECE, p. 13). In addition, as is common throughout the transition countries, the interiors of many units in poor-quality buildings are well maintained and even improved.

At the time of the UNECE report, the prices of units for sale in areas of relatively low demand and high emigration were very low, only one-third or so of the cost of constructing housing. However, prices had risen significantly since 2000 in response to the increase in solvent demand due to a voucher program for displaced households and also the increase in demand in general pushing prices up closer toward replacement costs. The Pre-Feasibility (PF) report finds that these increases have continued, and that new construction has become viable in some cities.

This process can be most dramatically seen in Yerevan, where solvent demand for better quality units, often by members of the diaspora, has boosted prices overall and led to a small boom in construction. Although the new units being built are at the luxury end of the scale, even modest panel flats are now priced at levels (USD 15-30,000) similar to those observed in other CIS countries.

From the point of view of the average urban resident, upgrading of the kitchen and bath facilities seems to be one of their highest priorities. The recovery in prices of basic panel flats in Yerevan (they have reportedly tripled since 2000) is permitting greater access to credit to finance such upgrades. Lenders

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[5] UNECE (2004), p. 14.

usually restrict financing for renovations to 50% of the appraised value of the flat (prior to renovations), as well as limits based on household income.

All three reports note that, as in most countries with weak financial infrastructure, most investment in housing construction and renovation, or the purchase of existing units, is financed in cash, with resources drawn from existing housing equity, personal savings, savings of close relatives, and remittances from abroad. In many such countries, it is traditional that emigrated workers invest in a relatively costly unit in their home country, both to display their status and to provide a place to live upon their ultimate return. In any case, gathering the necessary cash funds is somewhat easier in Armenia (than in non-transition emerging markets) because most households extant at the time of privatizing the housing stock are endowed with their equity in their existing unit and without any debt burden.

Armenia is also somewhat distinctive because it has many of the legal and procedural elements in place required to support more widespread lending for housing. Although improvements can be made, and would indeed be necessary for the system to reach its potential, both the UNECE report and the PF study conclude that these elements do exist and are not a major impediment to the growth of the system.[6]

2.B The Current State of the Mortgage Market

All three reports suggest that the main impediment to expansion of residential mortgage lending is the weakness of the banking sector.[7] The three reports have somewhat different perspectives on the state of the banking sector, based primarily on the time of the study.

The UNECE report said that mortgage lending by banks was negligible (p. 9). It goes so far as to pronounce the banking sector to be "the weakest part of the infrastructure required for a successful housing finance system" (p. 49). It notes the hyperinflation in the early 1990s led to dollarization of the economy. Stabilization and a stronger regulatory regime led to a "false dawn" for the sector up to the time of the Russian crisis, with an after-shock of another banking crisis in 2001-2002. At that time, 8 of the country's 28 banks were taken under interim administration. The five smallest of these banks were being wound up and the others were being restructured. Together, these banks represented almost 20% of the sector's assets, more than 25% of its loans and almost one third of its deposits (p. 49).

Thus, it is not surprising that Armenia lags even other CIS countries in the depth of its banking sector. However, the firm stands taken by the CBA with respect to these closures, and subsequently with respect to supervision, capitalization, and governance of banks, are providing a basis for renewed confidence in the sector. This is noted in the more recent USAID study as renewed dynamism in the banking sector in 2003 and 2004. In fact, during calendar year 2004, total assets rose by 29%, up from a rise of 16% in 2003.

[6] See also the additional report, "Legal Report and Advice to Counterparts" that was completed as part of this Feasibility Report.

[7] As noted below, this report also emphasizes the finding in other such countries that use of credit is something that is only gradually accepted by the public. In other words, demand is also weak initially.

Further enhancing the near term outlook for the sector is the deposit insurance scheme that has gone into effect as of 1 July 2005. The scheme has been given credibility by the infusion of funds from KfW, so that it can start off with a reasonable amount of capital (and a lower fee rate on current deposits). It essentially covers up to AMD 2 million (about 3,600 euros) in AMD deposits but only half that if the deposits are in forex (with the caveat that the insurance does not cover deposits of legal entities). This should cover most smaller personal depositors who would be most vulnerable to a bank failure and least able to evaluate banks.[8]

A specific feature of the banking sector in Armenia should be noted. There is only one large international bank active in the sector, HSBC, and it has a disproportionate role in several respects. As of 31-3-2005, HSBC had 17% of total banking assets and 34% of all demand deposits. This is often seen as giving HSBC a dominant share in the deposit market, and thus an advantage in offering mortgage finance. However, it should be noted that HSBC has only 6% of the market for time deposits, partly due to its (somewhat famous) low rates on offer of 1-2% in contrast to 7-8% offered by most other banks for 1 year deposits. In turn, HSBC has only 6% of the total loan market, but those loans are predominantly in residential mortgages, where it is by far the largest lender.[9]

All three reports describe a mortgage market that is nascent but growing quickly. It appears that some of this growth is related to changing terms on offer. As of early 2003, the typical terms are described (UNECE, p. 50) as a maximum LTV of 50% and a rate of 18% and a term of 3 years. In the PF, the typical rates and LTV are similar, but the maximum term is now commonly 5 years (mid-2004) (p. 11). By the time of the present study, conditions had changed to the point where a rate of 14-17% is typical and a rate of 12% is on offer to good customers by two lenders, but the maximum maturity remained at 5 years at all but the two most selective lenders, which offer mortgage loans at the market's current maximum maturity of 7 years.

A shift from a term of 3 years and a rate of 18% to a term of 5 years and an average rate of 16% increases the amount that a given household can borrow by 50%. This must have contributed to the growing popularity of mortgage credit over the period.

This increase can be seen in the data in Table 1. The data is from two related sources. The data for year-end of 2002, 2003, and 2004 are estimates calculated by the CBA based on filings by banks that included consumer loans to natural persons secured by real estate but did not specifically break out mortgage loans for housing. The data for 30 April 2005 are the first compiled based on a specific question to banks, defining mortgage loans as "loans to natural persons for buying or renewal of a home

[8] However, under current circumstances, it only covers about one-quarter of total deposits of natural persons and only 12% of all deposits.
[9] It seems likely that the flow of causation is the reverse. HSBC does not compete for time deposits because it does not see (or seek) large opportunities in making loans. Instead, almost half of its assets are deposited in correspondent accounts, primarily with the mother bank.
The PF study interpreted these data to suggest that most banks have to pay high rates for deposits due to distrust of their soundness. It is clearly true that HSBC benefits from a perception of greater safety, and that the spread on interest on time deposits partly reflects that. But if HSBC wanted to expand its loan portfolio markedly, it would have to close the gap at least somewhat. Moreover, this is not to say that the rest of sector is viewed as being unsound. Banks in Ukraine which are much larger and better rated currently pay similar amounts for time deposits in a very similar interest rate environment.

which are guaranteed with the mortgage (pledge) of that home."[10] The earlier numbers probably overstate the level of housing credit, but not necessarily the annual rate of growth from 2002 through 2004. The last number is the most accurate, but the rate of growth over the 4 months to April 2005 is probably understated because the number for 12/04 is overstated.

TABLE 1. Estimated Mortgage Stock, 2002-2005 (USD millions)

Period Ending:	CBA Data	% Change
12-2002	2.8	
12-2003	7.1	154%
12-2004	12.1	70%
To 4-2005	12.9	Not Comparable[11]

Source: Central Bank of Armenia, with adjustment in 2005 for UCO lending. The amounts were reported in AMD, but converted to USD at the current exchange rate. This is because most of the loans are denominated in USD and thus changes in volume due changes in the USD/AMD exchange rate should be removed.

These data show a high and growing demand for housing credit. Even on terms of 3 years and 18%, the loan stock grew by USD 4.3 million in 2003, net of repayments. The increase in the year through December 2004 was probably about USD 5.0 million or 70%. However, although this amount is 3.0% of the rise in bank assets during 2004, it represents only about 250-300 borrowers (at USD 15-20,000 average loan size), out of a pool of at least 750,000 housing units and at least 15,000 transactions involving existing or new housing units per year. There is very large scope for expansion in this sector.

The USD 11.9 million as of April 2005 (USD 12.9 less the USD 1.0 million held by a UCO) represented only 10% of the banking sector's stock of loans to natural persons. But at certain banks, the share was much larger (the banks that did not even offer housing credits held 40% of all loans to natural persons) and also represented a significant share of the banks' time deposits. All three earlier reports speak of the access to longer-term resources as being a significant limit to the volume of mortgage lending. Notably, HSBC, with the most stable and lowest cost deposit base in the sector, held a share of almost 40% of the mortgage stock. Other banks report themselves to be hesitant to expand their lending because of limited term funding.

In fact, interviews during the current fieldwork revealed a pattern of banks positioning their terms according to the availability of funding for more mortgage lending. Thus, several lenders had left their terms at less-competitive levels (17-22% for 2-5 years) after having originated a stock of loans in 2003-4, apparently because of their limited willingness to take on additional longer-term maturity loans. Meanwhile, other lenders were actively pursuing lending at the moment, with rates of 12-14% and terms of 5-7 years. However, all of the "less-competitive" lenders spoke about revising their terms soon to restart lending.

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[10] As of early 2005, this new, more accurate approach acquired a flaw. It does not include mortgage loans made by Universal Credit Organizations (UCOs). The authors established that this missing amount was USD 1 million and that amount has been included in Table 1 for 4-2005.

[11] See text.

It is not clear yet whether most of the less-competitive lenders will re-set their terms as liberally as the most competitive. Most are paying 7-8% for their fixed-term deposits of 6 months or longer, and could conceivably afford to offer rates as low as 12%, but would be reluctant to do so as to maintain higher margins. There seemed to be even less interest in offering terms exceeding 5 years.

On the other hand, the level of competition in the sector is set to rise significantly in the near term, driven by the actions of several institutions. One is not a new entrant technically, but is effectively. Emporiki Bank had been an active participant in the mortgage market, but pulled back when the mother bank in Greece began to reconsider its involvement in Armenia, specifically in light of the additional capital infusion that would be needed to reach the new minimum capital requirement of USD 5 million (for existing banks) as of July 2005. Emporiki chose to sell out to a new entrant, Cascade Financial Group,[12] which has renamed the bank to Cascade Bank and intends to re-enter the mortgage market, as well as offer an entire family of financial products under the Cascade brand.

A second is a Universal Credit Organization (UCO), which has been set up by an Armenian-American who has been successful in the mortgage business in the US. The new entity, to be called Washington Capital, will open soon, and join another such non-bank mortgage specialist, First Mortgage Company, in seeking to establish itself as an important factor in the mortgage market. Both of these companies may face limitations of their funding until they establish a method of raising wholesale funds in Armenia (or possibly through off-shore issuances), but both bring an extraordinary amount of experience in marketing and managing the lending process relative to domestic practices.

In addition, a bank with no prior participation in the market is planning to allocate USD 2 million to such lending in the near term.

It should also be noted that there is a dimension to the current market conditions that is almost invisible to outside observers. Lenders seem to have a significant variation with respect to certain key aspects of their underwriting standards. For example, of eight active lenders questioned, the four offering the lowest rates would not count remittances as household income, while the other four would do so, if the amounts were periodic and received through the bank. Lenders also varied with respect to whether income not appearing on a tax declaration would be counted. All lenders also had their own distinctive formula for computing the amount of household income that would be considered as available for servicing the loan. In other words, lenders are competing through alternative underwriting terms, as well as through rates and maturities, something that may make the development of comprehensive Minimum Quality Standards as part of the proposed program more problematic.

Lenders also differed with respect to their willingness to lend outside of the Yerevan market. For some lenders, this was simply a matter of where they had branches that could oversee such lending. Ten of the twenty banks in Armenia do not have branches outside of Yerevan. The two banks with the most branches, 64% of the total, are not in the mortgage market currently. However, at least three banks stated that they made loans in other cities in Armenia, although the procedures for doing so were more cumbersome. Notably, several lenders were concerned about financing higher priced properties in central Yerevan, which they felt might be getting over-priced.

[12] Owned by Florida-based Cafesjian Family Foundation.

No lenders had restrictions on lending to households below a specific income. However, when lenders assume that a minimum amount of income is needed per household member per month, such a minimum income level is implied based on family size. More generally, several said that their target market was younger urban professional households with income of USD 500-1000 per month, buying a flat costing around USD 600 per square meter or less.[13] This corresponds to the mainstream middle (or upper-middle by official statistics) urban class, buying flats costing USD 30,000-60,000 (or 4-5 times annual net income, as is typical in Europe), and seeking financing for 50% of that cost.

There was also a range of approaches evident with respect to financing for renovations. The underlying potential market for such loans is huge, since most households have yet to fully modernize the kitchens, baths and windows of their units since they were privatized. The cost of such a comprehensive updating was quoted at USD 15-20,000, almost the same as the 50% of purchase price that is commonly provided for housing purchase credits.

Some lenders treated renovation loans as short-term consumer lending. These lenders often charged a much higher rate for such loans and had maturities of only 2-3 years. Not surprisingly, renovation loans at these lenders were relatively small, both per loan (about USD 5,000) and as a share of their portfolio.

Others treated such loans in a manner similar to a purchase loan, with rates the same or almost the same and similar maximum terms. In these cases, the size of the loan would be similar to a purchase loan and, in one case, renovation loans were the largest share of the portfolio.

2.C Near Term Prospects

Where is the mortgage market heading in the near term? As noted above, the evidence of rising competition is very strong. Even HSBC is now marketing a loan rate of only 11%, based on the premise that the borrower pays another 1.2% for life and property insurance (not commonly required by other lenders). It seems likely that rates will temporarily settle into the 12-14% range when the “less competitive” lenders revise theirs. It is to be expected that lenders will continue to present a range of rates, though, based on differing underwriting standards and processes, as well as lower rates for special or long-standing clients.

Will rates decline further, perhaps to the range of 10%? This seems likely only in the medium term. The general level of rates on state debt is already low relative to inflation and country risks. Rates on deposits are unlikely to come down much further, although deposit inflows should strengthen because of deposit insurance. But margins could decline by up to 2% when there is truly excess lending capacity on the market and the rate becomes the main selling point.

More important for the evolution of the market is the maximum term. A drop in rates from 12% to 10% creates an opportunity to borrow only about 5% more, but an extension of the term to 7 years from 5 years boosts maximum loan amounts by 26%. A further extension to 10 years from 7 years yields another 23% increase for a total of 55% relative to the 5-year term.

[13] These are the same target demographics as in Ukraine.

It is difficult to say when and if the maximum maturity will be commonly extended to 7 years. Two lenders are already offering it, based on their advantageous situation of very stable funds. But banks facing more conventional funding constraints, i.e., relatively unstable and small amounts of term deposits, seem to be cautious about competing in this fashion. On the one hand, banks in Ukraine, with somewhat similar characteristics, including mortgage interest rates, are already offering terms of 10-15 years (at a small rate premium).[14] On the other hand, the ratio of banking assets to GDP is much higher in Ukraine (and bank assets and term deposits have been growing at over 50% a year for several years) and the geo-political stability may also be perceived to be higher.

This scenario seems likely to hold eventually in Armenia as well, once the full effect is felt of the banking sector strengthening program being pursued by the CBA and the GOA. With the establishment of higher capital levels, deposit insurance, more transparent governance, and less self-dealing, confidence in the sector should be restored and it should capture a larger share of financial savings. An expansion in the savings base and terms eventually should be able to finance a significant expansion (at least by several times) in the mortgage stock (to 6-10% of bank assets from the current level of 1.5%), and the extension of terms to even 10 years, as is more typical in other countries.[15]

In the intermediate term, there is a major role to be played by a program of refinance to accelerate these market developments. Moreover, the mortgage market will need further strengthening of its own standards and legal and procedural infrastructure if it is not to run into crises after its initial period of expansion. Finally, there may be a need for graduation later to some reliance on capital market funding, both to support further extension of maximum maturities and to develop the capital markets for purposes of investment by pension or investment funds.

All of these market expansion steps would be supported by the proposed program of the KfW.

3. PROJECTED MARKET CONDITIONS

As noted above, a good indicator of the current strength of the residential mortgage market is the estimate in the pre-feasibility study that the outstanding volume of loans was up by 150% from 2002 to 2003, and then another 70% in 2004. This remarkable result is not only due to demand conditions, i.e., the readiness of the public to seek such loans, but also to shifts in supply conditions. From 2002 to 2005, the typical interest rate on mortgage loans fell from 20-22% to an average of 14-16%, and the typical maximum maturity being offered extended from 3 years to 5 years in general. In addition, several banks earmarked significant sums to be used for such lending.

Such market evolution is similar to, or even more rapid than, what has already been seen in other transition countries undergoing similar development in retail banking, especially in consumer lending. Every

[14] Typical terms in Kyiv are 14-15% for 5 years and 15-16% for 10-15 years, all in USD.

[15] In the medium term, mortgage lending is a natural target for Armenian banks. Since a significant part of the economic base of Armenia is remittances from abroad, an implication is that the consumer credit should be a relatively larger part of the credit portfolio than credit to the producer sectors. Moreover, the banking sector has limited ability to finance major enterprises because of the small capital base (in absolute terms) of most banks and the prudential norms limiting exposure of that capital to one borrower.

such country that the authors are aware of has experienced such a take-off phase in this sector, once there is a confluence of favorable macroeconomic conditions, banking sector maturity, and reasonable (but not perfect) legal infrastructure.[16] Moreover, most of these countries have seen high rates of growth sustained up until the present.

This widespread experience in somewhat similar countries can provide a robust basis for projecting continued growth in demand for mortgage funding over the next 3-5 years in Armenia. The general pattern in two of these comparator countries is examined in some detail in Annex 1. These findings are adapted to the specific circumstances in Armenia to arrive at a range of projected volumes of outstanding lending for 2006-2008.

The authors have reasonably consistent data from seven transition countries in Central and Eastern Europe. These data are presented in Table 2. All of those countries show rapid take-offs and continuing growth of residential mortgage lending, but with very different starting dates, depending on the precise local conditions (and data availability). Very importantly, sometimes these growth rates are strongly influenced by factors that may not appear in Armenia, specifically the introduction of deep subsidies to housing finance and the take-over of the banking sector by foreign banks.

Table 2: Year-on-Year Growth in Mortgage Stock, as of 31 December

Country	1996	1997	1998	1999	2000	2001	2002	2003	2004
Armenia[17]								154%	70%
Croatia[18]				4%	12%	54%	60%	60%	23%
Czech Republic[19]		2%	19%	0%	66%	51%	51%	55%	57%
Estonia[20]				23%	41%	40%	44%	45%	38%
Hungary[21,22]					58%	82%	87%	96%	
Latvia[23]					58%	133%	86%	115%	
Poland[24]	76%	78%	64%	96%	63%	47%	42%	48%	
Ukraine[25]							113%	238%	29%
Average				31%	50%	68%	69%	101%	43%

16 This statement encompasses all of the Baltics, all of the Visegrad countries, Croatia and Slovenia, Romania and Bulgaria, and most recently, Russia and Ukraine.

17 CBA estimates

18 OECD 2004, Country note. Data in 2004 are per 30 June 2004 annualized

19 OECD 2002, 2000-2003 based on annual data on website, 2004 based on 6/2004 annualized

20 OECD 2004 presentation

21 OECD 2002 presentation

22 Duebel, OECD presentation

23 OECD 2004 presentation

24 Jacek Łaszek, "Development of the bank housing finance system for individuals in Poland", paper given at a conference in Budapest, May, 2004

25 Ukraine National Mortgage Association, June 2005

In this regard, the two best comparators are probably Poland and Ukraine and the experience in these two countries is examined in Annex 1. Poland is the only Visegrad country not to introduce deep subsidies to at least portions of the mortgage market, a situation so far also avoided in Armenia. However, the evolution of its mortgage market was influenced by two external factors, the large amount of technical assistance on mortgage lending that its banking sector received in the mid-1990s and the significant role of foreign ownership of banks played in the early 2000s. The mortgage market in Ukraine, in contrast, has not benefited so far from either extensive TA, foreign ownership, or deep subsidies. Moreover, Ukraine's period of rapid growth did not start until 2002, about the same time as in Armenia. Thus, each case study yields slightly different information, but the two together tell a very similar story.

It is concluded in Annex 1 that Ukraine is currently about where Poland was in 2000-2001, before the sharp decline in market interest rates and mainstreaming of the use of housing credit. It could be expected that Ukraine will follow Poland's example and grow the share of banking assets in housing finance toward 4-6% in the next few years.

What does the general experience in Central Europe and the specific experience in those two countries imply for Armenia? In a general sense, the mortgage market in Armenia is experiencing, since 2002, the same sort of "awakening" that it did earlier in these other countries, apparently at an even more rapid pace. The underlying reasons are probably the same. Lenders are finding mortgage lending to be relatively safe and relatively profitable, compared with other options, either in enterprise lending or consumer lending. Households are discovering the power of spreading the cost of buying or upgrading a housing unit over several years, even if it does come with a relatively expensive price tag.

Although it is impossible to assert exactly how mortgage lending in Armenia will proceed into the future, the implication from experience elsewhere is that there will be strong forces pushing it to grow, and only strong forces pushing the other way will keep it from doing so. Such potential negative forces could come from either the demand or the supply sides. On the demand side, a major slowdown or reversal of income growth could undermine the rising interest in both upgrading housing conditions (through moving or renovating) and using credit to do so. On the supply side, a reversal of the steady improvement in banking sector conditions or a new macroeconomic crisis should derail the shift into more retail banking and growth in the share of banking assets in residential mortgages.

Although the possibilities for such reversals are real, there is also significant potential for positive impetuses. A likely such development could be the acceleration in the growth of term deposits, given the protection of the new deposit insurance scheme. A larger role in the banking sector for Western mortgage-oriented investors is also likely. This has recently occurred with the sale of 25% of Armeconombank to the EBRD. The sale of Emporiki Bank to Cascade Financial Holding will reinforce the interest of that bank in mortgage lending. In addition, there are two American-Armenian investors who, based on independent feasibility studies, have specifically entered the residential mortgage market in the form of universal credit organizations (UCOs).

Of course, the actual evolution of the mortgage market will depend on not only the stability and growth in the banking and UCO sectors, but also on further declines in interest rates and growth in term deposits. Extension of maturities to 10 or more years is usually reached early on in countries with larger, more stable banking sectors, often with foreign entry and no history of large losses to depositors. When this happens in Armenia, the market will probably enter the next phase of its development, where the use of credit becomes common in most housing transactions.

The team proposes two approaches to projecting the future growth:

- A relatively simple and probably accurate approach to projecting the minimum growth in the mortgage portfolio over the next several years would be to take the lower range of growth rates that occurred in the countries in Table 1 and apply this to Armenia. The average rate of increase in the years 2000-2004 on the table is 64%. With one exception, every country showed increases of more than 40% in every year.

  Applying this lower rate of increase of only 40%[26] to the stock of loans as of 4-2005 (USD 12.9 million) yields a projection of USD 44 million by 31-12-2008. This is a very plausible point estimate of the extent of the mortgage portfolio of banks at the end of the projected cycle of KfW funding.

  The main reason why such a projection would not be met would be a shortfall in the funding base of the lenders, especially the growth in term deposits in the banking sector. It is precisely this event which the KfW refinance program would be well positioned to counteract and keep the growth trend in residential mortgages in place. The projected KfW funding of 12 million euros (perhaps USD 15 million) would be about 34% of this amount, leaving lenders to finance the other two-thirds. That amount should be manageable based on even current levels of deposits.[27]

- There is a more refined and less opaque alternative method of creating such a projection. It involves taking one step back and projecting the flow of new originations, and using that projection to create an estimate of the outstanding stock as of 2008. The first ingredient is an estimate of the rate of originations during 2003 and 2004 in Armenia. We know that the stock (using the CBA measure) grew by USD 4.3 million in 2003 and another USD 5.0 million in 2004. To get an idea of the gross originations during those periods, what we do not know is the rate at which the existing loans were being paid down.

  To arrive at the pace of gross new originations, we need to assume some figure for the rate of scheduled amortization and early repayments during that period. If we assume that the loans were scheduled to repay over an average of 4 years, and that there were USD 2.8 million loans outstanding as of 1-1-03, the outstanding principal would have been reduced through amortization (including prepayments at 1% per month) by USD 1.0 million over the course of the year 2003 and another USD 2.5 million in 2004 in order to have resulted in the net stock outstanding at the end of each period.[28] Under these assumptions, it is estimated that the gross originations in 2003 and 2004 were USD 5.3 million and USD 7.5 million respectively.

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[26] Notably, the four Armenian banks that responded to the question on the survey that was part of the Pre-Feasibility Study in 2004 had an average expectation of 39% growth in the mortgage market in 2006.

[27] This perspective does not take account of the currency denomination of the loans or deposits. The potential for conflicts between these are discussed in Section 4.

[28] The estimation process assumes a prepayment rate of 1 % per month (or 13 % per year).

A very conservative assumption is that this pace of gross lending rises by only 20% per year, while amortizations decline (due to the average term rising to at least 5 years) and prepayment rates stay the same. In that case, the remaining outstanding stock of loans as of 31 December of each would rise by about USD 5-6 million per year over the next few years. By 31-12-2008, that would put the stock of loans at about USD 36 million.

Table 3: Projected Mortgage Stock, Based on Growth in Gross Originations (USD millions)

	2002	2003	2004	2005*	2006	2007	2008
Gross originations*		5.3	7.5	8.9	10.7	12.9	15.5
Prepayments*		0.4	0.9	1.5	2.2	2.9	3.7
Amortisation*		0.6	1.6	2.1	3.0	4.0	5.0
Net originations*		4.3	5.0	5.3	5.5	6.0	6.8
Stock (20% Growth)*	2.8	7.1	12.1	17.4	22.9	28.9	35.6
Stock (40% Growth)	2.8	7.1	12.1	18.9	27.8	39.9	56.5

Source: Authors' calculations
* Based on 20% growth of gross originations, 1% per month prepayment, and 5-year average term after 2004.

Table 3 shows how this simulation plays out with respect to the year-on-year increase in the mortgage stock. The conservative scenario of 20% growth in gross originations assumes that there are no improvements in the terms on offer and a very modest further shift in consumer attitudes.

Any improvement in terms or attitudes should produce a larger result, perhaps more than the range arrived at through the first projection. For example, Table 3 also includes an "optimistic" scenario that assumes that the rate of gross originations grows by 40% per year instead of 20%, due to lengthening of terms and/or declines in rates. In this case, the stock rises to over USD 56 million by the end of 2008.

Under all three of these projections (USD 44 million, USD 36 million and USD 56 million), there will be a strong appetite for funding suitable for such lending. As discussed in Annex 6, supporting loan growth does not necessarily require funding beyond what will be available in the banking sector. But additional funding of longer term than what is available currently will almost certainly accelerate the extension of loan maturities and accentuate the degree of competition in the market. Indeed, if the project proposed here is pursued, the likelihood of the "optimistic" path leading to a stock of USD 56 million significantly increases.

4. POLICY PARAMETERS OF THE REFINANCE PROGRAM

The discussion here assumes that there would be a refinance window operated through the German-Armenian Fund (GAF) already in existence (see Section 5 for more on this). As currently foreseen, the GAF would receive disbursements of 6 million euros in the 2005 round of funding, to be utilized in

2006/2007. This could be followed up by another round of funding of perhaps another 6 million euros in the next bi-annual round of German-Armenian intergovernmental negotiations in early-2007, and be used in 2007/2008.

However, if the program is organized or funded differently, most of the issues and conclusions drawn here would remain relevant.

There are at least seven potential policy goals of the proposed refinance portion of this project. The first four are major goals, but all are areas of concern. They include:

A. Expansion of the use of AMD in mortgage lending
B. Extension of the maturity of mortgage loans
C. Flexibility in the loan interest rate
D. Adherence with a set of Minimum Quality Standards (MQS)
E. Expansion of the offer of housing credit outside of Yerevan
F. Targeting to relatively moderate income households
G. Laying the foundations for a secondary market

For reasons noted below, it is neither plausible nor desirable to seek all of these goals at the time of the first refinancing. It is recommended that these multiple goals be sought over time, in a phased manner. The phasing would not follow the pattern of authorizations from KfW, because they are currently expected to be only two, but rather some other pattern of more frequent tranches (probably every 6 months). The objective would be to have most or all goals met by the start of the last tranche from the second authorization.

This view raises many interesting questions of how best to sequence these sub-objectives. In order to examine the advantages and disadvantages of alternative sequencing, it is necessary to consider the nature and context of each policy goal.

4.A AMD in Mortgage Lending

This is both one of the most mandatory conditions yet also one of the most difficult constraints in the short-run. As of April 2005, only 2.5% of the outstanding stock of residential mortgage loans were denominated in AMD and almost all the rest is in USD. Moreover, within the last 18 months, the AMD has appreciated more than 20% against the USD, rewarding those who took the USD loans with a windfall (assuming that their income was fixed in AMD rather than USD). A USD 20,000 loan for 5 years at 14% that started out with a repayment of AMD 256,000 per month in early 2004 would require a payment of only about AMD 200,000 in May 2005.

Of course, it is possible that the reverse will happen on into 2006, with the monthly payment rising by 25%. This is as worrisome for the lender as it is burdensome for the borrower. The actual situation of any specific borrower depends on the denomination of the income backing up the capacity to make the loan repayments. But the government is in the process of forcing more types of payments and contracts, including wage contracts and interest payments, be denominated in AMD. For those with income truly fixed in AMD, the priority of the lender and borrowers should be to have an AMD denominated loan.[29]

The current popularity of USD loans would seem to make it difficult to require that project loans be in AMD. However, it is a basic policy of the CBA not to on-lend in anything other than AMD, including within this project. Moreover, since Armenia has required all employers to set labor contracts in AMD as of 1 July 2005, it should be more attractive to both lenders and borrowers that loans be underwritten according to a currency match between incomes and loan obligations.

The situation should be significantly helped by the decline in the gap between the cost of a loan in USD and one in AMD. This decline is being supported by the decline in the gap between deposit rates in the alternative currencies, partly the result of greater willingness to hold deposits in AMD due to the rise in its value. (Currently, less than 20% of time deposits are held in AMD.)

It may still be a challenge for lenders to convince borrowers of the wisdom of an AMD loan. However, there is another aspect of the project that helps in this regard, because the shift in currency will be associated with a longer maturity. The longer maturity (minimum 10 years) is attractive and also is logically associated with steps to reduce borrower exposure to currency risk. (It does raise issues for the funding of the loan after the end of the refinance, which are discussed below.)

In summary, the requirement that the loans being refinanced be denominated in AMD is mandated by CBA policy and it would be preferable to adhere to it from the very first. However, it may be useful to note that, in principle, it could be the case that the loans being counted as qualifying for "refinance" be in USD (but meet other important parameters, such as a 10-year term) yet the refinance be provided in AMD. In this case, the CBA would not be violating its rule against providing refinance in forex, and lenders could be on notice that only AMD loans will be accepted after a period, but there could be some leeway to give time for lenders to promote AMD loans to the public.

4.B Longer Maturities

The maximum maturities of housing loans have been rising steadily in the last 3 years, from only 3 years in 2002 to 5-7 years currently. This makes sense from the perspective of both lender and borrower. Banks have seen a steady growth of their deposit base and a shift toward more deposits with a term of 6 months or more. That is partly due to good economic conditions and also to ever stronger capital base of the banks and close supervision of their activities. Such trends also have positive impacts on each bank's choice as to how much to worry about liquidity. If the likelihood recedes of any bank failing, this reduces the likelihood of contagion and gives greater confidence to well-run and well-capitalized banks to extend the maturity structure of their assets. (In fact, the share of all credit with terms over 1 year rose from 38% at the end of 2003 to 47% during 2004.)

Only 2 lenders are currently offering a term as long as 7 years. But the trend is in that direction, and it seems possible that it will become the norm for the major lenders if trends persist in the growth of time

[29] However, so many households benefit from remittances in forex that most borrowers probably see some benefit from a loan in USD.

deposits. The next big step would be to a 10-year term. Such a term would be a significant accomplishment from current levels. A further jump to the next level, to 15 years, is less potent. The jump from 5 to 10 years increases the amount that can be borrowed based on a given household income by 54%, more than twice as much as does a further rise to 15 years.

But there are reasons for the banks to be concerned about taking the step from 5 to 10 years. Not only does it require a great degree of stability in the deposit base, but it may be accompanied by a decline in the rate of prepayments that has been experienced so far. (High rates of prepayment tend to decline as the public gets more used to carrying debt and especially if the spread between deposit rates and loan rates declines, as appears likely under rising competition.) A simultaneous decline in the rate of early repayment would mean even more of an extension of the average effective term in the loan portfolio.

It seems reasonable to start this project with the requirement that all loans being refinanced have initial terms of 10 years or more. Certainly if, at the time of the first refinancings in 2006 or 2007, a term of 7 years has become common, there is little value-added by holding to that level. However, there is an interaction between this goal and the goal of having the loans denominated in AMD. As of March 2005, only 19% of all time deposits in the banking sector were denominated in AMD. This is a fairly narrow base to build up a large stock of AMD mortgages, especially when continued refinance of existing loans in AMD is not likely after the term of the first round of refinance (3 or 5 years) is over (priority will be given to new loans being originated in AMD with terms of 10 years or more)

This raises the question of whether it may be necessary to defer the push for one of these key goals, AMD lending and 10-year lending, at the very beginning. At this point, it is the judgment of the team that the project can proceed toward both goals simultaneously. As noted above, borrowers will have greater incentives to borrow in AMD if offered a longer-term as a result. Moreover, if wages are more closely tied to AMD, both borrowers and lenders will prefer to focus on that. Finally, the share of the deposit base in AMD should receive a boost from the higher coverage that AMD deposit receive under the new deposit insurance scheme, as well as an aftermath of the last year or more of appreciation in the AMD.

Another question is whether the jump to 10 years from 5 years will be comfortable for banks with refinancings of only a 3-year term or even a 5-year term. The simple view is that, if a lender is willing to make a loan for 5 years today, then it should be willing to fund a 10-year loan during its last 5 years from its own resources, especially because the outstanding principle on such loan may be only 50% or less of the original. However, the reality is that there is always greater uncertainty about the funding situation of any lender 5-10 years from now than 1-5 years from now. Because there is some chance that a lender will be suffering a liquidity problem in 5 years or so from today, it may want to avoid today taking on the responsibility of carrying that loan over those last 5 years.

It is difficult to know the significance of this fear, either in the sense of how probable the funding difficulty could be or how seriously lenders would treat it today. It will only be a problem if, in fact, a given lender is not wanting to make even 5-year loans at that time. This could occur because (1) there is a general liquidity crisis at that time or (2) the lender is suffering financial difficulties. In either case, it is still unlikely that having a small part of its portfolio in such seasoned loans (originated 5 years earlier, and thus very low risk) will matter.

However, this issue should not prevent the adoption of a general pattern of funds recycling relatively quickly. The team proposes that the refinance program provide, either as part of its internal regulations or in the loan document, for automatic renewal of funding after the first term (either 3 or 5 years) for 3 more years, but only up to the amount outstanding on the originally refinanced loans. Moreover, this amount provided under this term will count against the general cap that any lender might face on how much new funding it can access at that time. Under these circumstances, the lenders will generally choose to receive new funding if they are not facing liquidity problems, since it will be for a longer assured term. However, if they do face liquidity problems, they can choose, *ex post*, to have effectively received full funding of those loans for 8 of their 10 years of life.

Another factor in the choice of term of the funding is the choice of fixing the interest rate on the end-loan. This is discussed next.

4.C Shifting to Floating Rates

So far, housing finance in Armenia has been mostly with rates fixed for the full term of the loan. This is inherently desirable from the point of view of the consumer, *as long as* the borrower has the full freedom to prepay at any time for any amount. The net result of this arrangement is to permit the borrower to take full advantage of any decline in interest rates, either through drawing on cash to prepay or arranging to refinance the loan at a lower rate at another lender or even with the same lender, while not being exposed to any rise in rates.

Of course, the opposite is the case for a lender. To the extent that borrowers repay early when the rates come down, they do not lose if their own cost of funds (say, from deposits) also goes down, but they also do not gain. Yet, if the cost of their funds goes up, they are not protected. Moreover, under such circumstances, the rate of early repayment may decline even below the normal.

This dynamic situation has had no consequences so far. This is partly because so much of the lending has been fixed in USD, for which rates have been more steady than for AMD. Moreover, rates in USD and AMD have only declined since 2003, and thus has the cost of funding declined. In this environment, banks have been rewarded for fixing the rates. Those borrowers who could not easily pay off or refinance their loan had to continue to pay at the old higher rate. Meanwhile, the relatively short-term of the funding had cut the cost of funding. (This practice also finally led to one new entrant into the market successfully taking away and refinancing a large number of loans of a major lender.)

Both the CBA and the KfW want to shift this pattern of lending, to protect the banks if there is a rise in rates and those borrowers who cannot prepay if there is a significant decline. Such a shift also becomes more urgent if the term of the loan grows to 10 years and the currency shifts to AMD.

One approach commonly employed in many countries is for the rate to "float" at some premium to a "risk-free" benchmark such as for domestic T-bills or even Libor. The effective rate changes at whatever term that applies to the benchmark, e.g., every 6 months for 6-month T-bills. This works well for the lender as long as its cost of funds also follows the benchmark at some reasonably stable spread. However, it penalizes the borrower by exposing the household to relatively frequent and potentially large swings in the amount of repayments.

Such an approach assumes that there is a well-measured rate for the relevant T-bill. This may or may not be the case in Armenia. Although there is only a relatively small amount of domestic debt, it is relatively actively traded. So such an approach is not impossible, especially if the secondary market trading expands over time.[30] However, there is a larger problem. It is likely that the cost of funds of a particular bank may be impacted by events specific to that bank, and that spreads between T-bills and deposits rates of banks in general may be affected by banking sector or macroeconomic shocks. This exposes banks to interest rate risk even when the rate on the loan is frequently adjusted based on state debt rates.

In addition to these considerations, requiring such a move immediately from the current state of permanently fixed rates to truly floating rates may be challenging to all parties.

The situation is further complicated by the fact that the CBA/KfW refinancing itself can be at a fixed rate or a floating rate.

In this regard, it becomes important to recognize another major overarching goal of the project, to facilitate the shift toward capital market financing. As will be discussed below under Section 4.G, most capital market financing is in the form of fixed rate loans for periods of 3 or 5 years. This is true of mortgage bonds and of refinancing from liquidity facilities (and of the bonds that they issue).[31] Moreover, a rate fixed for only 3 or 5 years does not introduce major interest rate risk (unless, as is possible, there are major swings in rates).

The team proposes that this be an area where standards shift over the course of the project. The earliest refinancings would require some degree of re-set, but perhaps just matching that of the term of the refinancing, which would be at a fixed rate. For example, the loans could have a rate setting mechanism such as resetting at the end of 3 or 5 years according to the change in the 3- or 5-year state debt rate. Alternatively, and perhaps more attractively, the rate would re-set after 3 or 5 years to the rate that the bank is charging at that time on new loans of term of 5 years or more.[32] In later refinancings, it may be appropriate to push for rate resetting to follow that on the main source of funding, such as term deposits of 1 year.

4.D Adherence to MQS

Another important goal of the project is to see the spread of appropriate MQS throughout the lending sector. The theory is that tying the refinance to observing these standards will push a significant share

[30] The Ministry of Finance has been focused on extending the term of the state debt, and has been very successful. If, in cooperation with the CBA, it now turns towards “bulking up” the volume and liquidity in the range of 1 year or less, it may be possible to use such rates as references for mortgages, and also to develop a forward market.

[31] This need not be the case. Such financing can and often does come at a floating rate, but fixed rates are more common.

[32] In other words, if the bank is currently charging 14% for loans of 5 years, and in 2010 it is charging 10% for such loans, the rate would fall to 10% for the last 5 years. This would nudge the market toward a pattern of rate re-sets every 3 or 5 years, as is practiced in Canada and, to a significant extent, in Germany.

of the lending community to do so. One of the benefits is that lending will become more suitable for use in pools of mortgages backing mortgage bonds or in pools of collateral pledged to a liquidity facility.

It may be possible to go immediately to such a goal. The exact MQS are still unsettled, of course, but there is the prospect of agreement on a reasonable set. A more likely scenario is that most of the MQS can be agreed on, but that some (e.g., treatment of unofficial income) may require a longer period of consensus building before they can be specified in detail.

It is in this latter case that it should be recognized that (1) the right standards for a specific country at a specific time are not always easy to identify and (2) that their real value will appear when there is a chance that the capital markets can be tapped. In the meantime, the gains from forcing standards are relatively small compared to the costs of choosing inappropriate ones.

Thus the team proposes that the refinance window start with as many standards as can be agreed upon and that the important unresolved issues be resolved by the time of the last tranche from the last authorization of additional KfW funding. It may also be permitted that participating financial institutions (banks and UCOs) not have to follow the MQS on loans that are not subject to refinance, such as USD loans for 5 years.

The team also proposes that, after agreement is reached on an initial set of MQS for use in this project, the CBA consider approving all loans that meet these MQS as eligible for a new category of capital risk weighting, using the Basel I approach of granting such loans a risk weight of only 50%. This should provide a further incentive for widespread adoption of the MQS, and simultaneously, a reduction in the risk characteristics of such loans.

4.E Credit Outside of Yerevan

Currently it appears that more than 90% of mortgage lending is in Yerevan. At least 2-3 lenders do offer loans in other towns, but they report a degree of inefficiency in doing so, since such relatively large loans must be reviewed and approved in Yerevan. There is credit being made available in rural areas by ACBA, but there is no systematic program for residential financing. Lending in rural villages, other than group-based micro-credit lending, is particularly problematic, since there will be few willing purchasers of the home of a neighbor in a foreclosure sale.

It is likely that, as the Yerevan market becomes more saturated with competition and/or questionable as to the prospects of price declines, some lenders will begin to focus on lending elsewhere. This may happen naturally, but it is also possible that the project could foster this in later stages, once more pressing goals have been met, by permitting banks to obtain additional refinance specifically for such lending, above the usual limits on allocations.

4.F Social Targeting

In general there is a desire to use the attraction of the CBA/KfW funding to push lenders to go beyond the convenient confines of their current practice and expand lending to segments of the population not currently served. In some countries, the key parameter in this regard might be income or perhaps those currently not owning a home.

However, in Armenia, such situations are less clear-cut. Income can come from many sources and most of it may not be known about in official channels. Thus, requiring the "income" below a certain amount may only be loosely correlated with general welfare of the household. A frequent alternative, the price of the housing unit, could be used instead. But many loans are for renovations, where the value of the current unit is also only loosely related to income.

More importantly, there is no evidence that lenders are excluding borrowers simply based on their income or occupation, but rather limiting all borrowers to an amount that the lender judges they can safely repay. In the absence of a deep subsidy from some source, the ability of lower income households to repay will not be changed by the project. Instead, the access of lower income households to housing credit will mostly benefit indirectly (but significantly) through lengthening of the permitted period for repayment to 10 years.

It is likely that, given the number of other market innovations that are being pursued through this project, it is inappropriate to further require lenders to take on much additional burden with respect to the nature of their clientele. However, there does seem to be one area in which it may be reasonable to press lenders to expand toward, namely, lending to those who earn a large share of their income from irregular or unofficial sources, including remittances.

Several lenders already permit such income to be used, often indirectly, in calculating the maximum amount of loan repayment permitted. But lenders such as micro-credit organizations may be in a position to better evaluate the creditworthiness of such customers, due to relationships they have with respect to enterprise credits. One route to serving such an underserved group would be to channel a share of the refinance through such organizations. This might also be pursued at a later time in the project, if and only if a proper regulatory framework is in place.

Meanwhile, there does not seem to be any problem with seeking the more modest goal of not refinancing loans made to truly high-income households through a simple screen of a maximum amount of the loan. The IFC applies a cap to its program of refinance with the Armeconombank of USD 30,000 and this, combined with a typical 50% LTV ratio limit, seems to capture almost all middle-class housing in Yerevan, where most flats sell for USD 60,000 or less and such large loans would require the relatively high income of USD 1200 a month or more, even with a 10-year term.[33] An AMD equivalent, say AMD 15 million, could be set as a limit for this program.

The team supports the use of such a limit for this project. Of course, this limit can be moved up or down as the project progresses, either to reflect increases in housing costs or to more narrowly focus the resources, if the funding of the mainstream market is already well served.

The remaining issue is whether to have a lower limit for renovation loans than for purchase loans.

[33] Out of 118 flats being advertised in a "VIP Real Estate" flyer in May 2005, 67% were priced at less than USD 60,000 and 91% of those of 2 rooms or less were so priced.

In many countries, where houses routinely cost over USD 100,000 and rates are so low that most loans are for 80-90% of the cost, while renovations are usually only for 20% or less of the value, the usefulness of such a distinction is self-evident. Purchase loans would normally be for USD 80,000 or more, while improvement loans would tend to be only 25-30% as large. However, in Armenia, most middle-class housing costs in the range of USD 20,000-60,000 and most loans are for 50% or less. Thus, purchase loans are for USD 10,000-30,000. Meanwhile, the state of many flats is such that renovation and modernization costs a minimum of USD 5,000 and up to USD 30,000, without resulting in a luxury unit. Thus there is a large overlap between the loans that the middle class obtains to purchase a home and to renovate one, and it appears to be inappropriate to give a different cap for each use.

On the other hand, there will be an automatic focus of the refinance on loans for purchase and only major renovations. Given the requirement that the loans be for at least a 10-year term, loans for smaller renovation projects (USD 5-10,000) will tend not to qualify, as bank and borrowers find that a term of 3-7 years is sufficient to make these loans affordable.

4.G Foundations for a Secondary Market

All major counterparts, including the CBA, the PMU, and the Ministry of Finance and Economy (MOFE), as well as donors such as USAID, EBRD and the IFC, were supportive of the idea that the refinance part of the proposed project be designed to "bridge" from the current situation of total reliance on bank deposits for funding to a future where longer-term wholesale investment funds be available as well, drawn from the domestic capital markets.

What is conventional capital market funding? There are at least six options in this regard. These include:

1. Corporate bonds issued by banks or credit organizations
2. Mortgage bonds by banks or credit organizations
3. Securitizations by banks or credit organizations
4. Liquidity facility
5. Centralized mortgage bank
6. Centralized securitizer

All six of these are discussed in Annex 6. It is concluded that only two are likely to become popular in the near future in Armenia. They are mortgage bonds and the operation of a liquidity facility (LF).

This view has several implications for how the project is structured and executed. Capital market funding, either in the form of mortgage bonds or through a liquidity facility, has several characteristics typically. These include:

1. Mortgage loans serve as collateral. Thus they must be existent already, and there must be some process for securing an interest in them.
2. The term of the financing is usually 3 or 5 years. This reflects both the supply and the demand sides of the market. Investors, whether buying mortgage bonds or bonds issued by a LF, are usually most interested in this range of maturity, because it makes it less likely that they will need to liquefy the bond in the secondary market. Of course, liquidity is still important for such

bonds, and it may be relatively high for such issuances, but it will still be fairly costly to sell in advance of maturity. On the borrower side, 3-5 years is a period of fixity of the rate that can provide real protection from changes in rates, but not be so long that lenders require the payment of large penalties for prepayments or that investors require large premiums for a provision permitting early call.

3. Such bond financing is usually in a bullet format, with no amortization over the period. Mimicking this will mean that it is possible that the amount of refinance exceeds the amount of the loan portfolio "qualified" for refinance. This does not seem likely to be a major issue when loans are level payment type, the refinance is used in the first 3-5 years of the life of the loan, and the market continues to grow in general.[34]
4. The loans meet certain minimum standards, but that they do not necessarily need to be all the same in all respects. For example, loans that have rates that are fixed over different periods can be mixed together in the collateral pools as long as there is enough excess collateral.
5. Such issuances must include a large enough premium over state debt to compensate investors for any perceived credit risks and for lower liquidity or other aspects of the bonds. On the other hand, they cannot cost the banks too much relative to the option of raising more term deposits.

As in the case of some other parameters of the project, the refinance window may move in the direction of these characteristics progressively, not from the start. For example, there may be no actual assignment of loans as collateral initially, especially if such a step is costly or ineffective. But the term of refinancing should be similar to the 3-5 years for bonds, a number of significant quality standards should all be applicable, and there can be some sort of pricing mechanism for the refinance that relates to market rates on state debt. By the end of the tranches from the second authorization (2-3 years), it should be the case that all of these conditions have been met, such that loans are being pledged and the rate on the refinance is close to the rate likely on mortgage or LF bonds.

This last aspect is important. Actually, the rate need not be quite so high, because it is not clear that banks will want to participate at such high rates, and thus this could undermine some of the other goals. But it is important that at some point, the rate on refinance be as high as the lenders will tolerate (e.g., as determined by open auction), to help gauge if in fact any of the lenders are willing to issue bonds or use a LF.

There is an additional way that the funds under this project can be used to eventually promote use of funds from the capital market. With the permission of the GAF Supervisory Council, the implementing agency could use reflows to buy bonds issued by a LF (or simply directly provide longer-term debt capital to it) or even mortgage bonds issued by an individual bank. Essentially, the GAF-M can act as a pioneering institutional investor to mimic the market, and also position its processes and products to be able to better judge the demand for such access.

[34] A level-payment (or annuity) loan has a total repayment of both interest and principal that stays the same throughout the loan term. The repayment of principal starts off being very small, and grows as the interest portion shrinks gradually. Thus, after 5 years of repayments on a 10-year loan, only 30% of the principal may be paid down.

4.H The Project and the Millennium Development Goals

The Millennium Development Goals (MDG) provide a focus on combating poverty on a global scale. As part of that effort, there are goals related to increasing access to education and clean water and promoting gender equality. Although Armenia has a relatively large number of poor people, it has a relatively high level of gender equality, education, and access to clean water.[35]

This program fosters the MDG in two ways. It substantially helps Armenia's financial sector grow, thereby helping the economy and the economic opportunities of the poorer citizens. Moreover, Armenia is a landlocked country with few natural resources, a situation singled out for attention under the MDG, since such countries have a major handicap in generating economic activity. Secondly, it is making available the benefits of a significant technology - that of mortgage finance. Although not a new technology, it is quite new to Armenia, and will have major benefits for all its people.[36]

4.I Potential Scenarios for the Evolution of the Refinance Window

The discussion in this section suggests that the following may be a likely scenario for how the parameters of the refinance window might evolve.

If all legal prerequisites for the project are settled by 1 January 2006, banks should be notified of the basic parameters of the program, including the expectation of minimum of a 10-year term, use of AMD, and the likely MQS required. It is unlikely that any lender will immediately start to market loans that meet all of these requirements, but some will prepare to offer this product.

The requirements for the loans being refinanced are discussed here. The actual allocation and disbursement processes are discussed in Section 5.

If there is enough willingness on the part of the public and enough confidence among the lenders that the AMD refinance or AMD deposits will be available, there may be a stock of appropriate AMD loans at the time or soon after the initial allocation of refinance from KfW. However, if this not the case, the project could revise its maturity requirements to accept AMD loans for 7 years. The last option would not put as large a burden on the market as a jump to both a longer term and different currency at the same time.

If it is decided to stick to the goal of pushing the term of the loans out to 10 years, then it is appropriate that all loans have a degree of flexibility in the interest rate. The minimum degree of flexibility would be a change in rate at the end of the term of refinance being provided (3 or 5 years).

[35] For example, the USAID report (p.231) finds that, although there is little hard data, "anecdotal evidence suggests that there is little discrimination against women."

[36] The last sub-goal of the 8th goal is "In cooperation with the private sector, make available the benefits of new technologies—especially information and communications technologies."

Adherence to the MQS could be required from the start, if there has been enough advanced notice about the MQS and enough consensus about their specifics. Alternatively, there could be a subset of the larger set of potential MQS that are promulgated at the beginning and others are phased in over the first few years.

In all of these cases, it will be helpful to work through a system of "forward commitments," whereby lenders request a commitment of refinance funding and have such a commitment before they expend the effort to market 10-year loans in AMD with flexible rates and appropriate MQS. How these initial rounds of commitments are allocated is a question addressed in Section 5.

The remaining goals will probably await later tranches or reflows. Some weight could be placed on lending outside of Yerevan in the allocation process, but it does not seem advisable that all lenders being refinanced have to serve these other markets. As for targeting moderate income households, it appears that a cap of USD 30,000 on the loan will not be a significant constraint, at least at current prices of housing, so it can be implemented immediately. But if and when other goals are met and reflows permit a re-orientation of the project, it may be possible to narrow the focus of the refinancing toward even lower-income beneficiaries (but only if there is some technology that permits lenders to move "downmarket" without jeopardizing the quality of the loans).

Finally, the adoption of truly market interest rates (or auction rates) and formal pledging mechanisms are not necessary at the beginning but will become more important as attention shifts toward whether to promote a secondary market operator or just encourage the use of mortgage bonds by individual banks.

5. OPERATIONAL AND PRODUCT DETAILS

It is recommended that the broad operational model be similar to the one employed in the German-Armenian Fund (GAF) SME program. Indeed, to differentiate it from the GAF-SME program, it will be designated herein as the GAF-M program. But there are some significant differences recommended for the mortgage program. These are summarized in Annex 2, which provides a side-by-side comparison of the existing SME program and the envisioned mortgage program.

5.A Basics

Under the GAF-SME program, the borrower is the Central Bank of Armenia (CBA), and the Government of Armenia, through the Ministry of Finance and Economy, provides a guarantee of repayment. The 40-year euro loan carries an annual interest rate of 0.75 percent. On lending is in AMD with CBA taking the exchange rate risk. The on-lending rate approximates partner banks' (PB) all-in cost of funds, although, as described below, in some instances a lower rate may be charged to induce banks to change their loan terms in ways desired by the program.

The GOA has not determined who the borrower will be for the mortgage program, the options being the CBA and the MOFE. The project team strongly recommends that the CBA again be the borrower, with the Government of Armenia providing the repayment guarantee. There are four reasons for this recommendation.

The GAF-SME program has performed very well. The relationships among the participants, including GAF and KfW, are well established and running smoothly. The SME and mortgage programs are similar in structure: they entail multiple sub-loans to lenders who then use the funds to originate numerous loans to end borrowers. Many of the tracking and control functions are very similar in the two programs. In short, there is every reason to build on success rather than create a new PMU.

Management of the foreign exchange risk associated with the loan. Because KfW will lend euros and the on-lending will be in AMD, the loan entails exchange rate risk. The CBA has an efficient mechanism for handling this risk and is willing to take it. Our understanding is that MOFE does not have the facilities to manage the risk as efficiently as the CBA, in terms of an off shore account in which to deposit the euros and the ability to emit AMD in Armenia. This being the case, the MOFE might have to make the banks bear the exchange rate risk, which would significantly reduce their enthusiasm for participating in the program.

Influence of the PMU on participants. The CBA is one of the two founders of GAF, and it is represented on GAF's Supervisory Council. Participating banks therefore understand that directives from GAF are consistent with CBA policy. This is extremely valuable since it eliminates the possibility for confusion in this area. In principal, a MOFE PMU could achieve a similar outcome through close coordination with the CBA. But this seems like a needless complication. Experience in other countries has also shown that such coordination is often imperfect.

Start-up cost and time. The GAF is up and running efficiently and operating a very similar program. It will be able to move more quickly to launch the mortgage program than another existing PMU that is operating a different program and much more quickly than a new PMU.

Based on the foregoing, the following discussion assumes that CBA will be the borrower and the new program is patterned on the current SME program.

The general loan structure will be the same for the mortgage loan as for the SME loan, as outlined above. GAF will be the executing agency, i.e., the PMU. As in the GAF-SME program, the GAF-M will focus on a few key functions and have a small staff, which may be identical in some positions. The project will engage a consultant who will have major responsibilities in project implementation, similar to those of the Project Consultant in the SME project. The model of a small PMU that out-sources substantial implementation functions contrasts with a model of a larger PMU that executes most functions itself, a model that is employed by some other donors. The GAF model avoids the PMU having to hire experts directly; in some circumstances, identifying and attracting such experts have proven challenging for PMUs. Rather than managing the execution of a wide range of functions, the PMU can, under the GAF model, concentrate on monitoring outputs and outcomes and working to correct problems when they arise. Both CBA and KfW expressed strong confidence in the model and explicitly expressed their desire to use the same approach in the mortgage project.

5.B The German-Armenian Fund (GAF)

In the SME project, GAF's Supervisory Council consisted of representatives of KfW, CBA, and IPC. The feasibility study team sees the inclusion of IPC (or any other implementing consultancy) on the Council as potentially problematic, most clearly if deficiencies in its performance were a topic of discussion. The team recommends that the contractor not be on the Council. At the same time the lack of any formal input from the banking sector under the SME loan should be remedied, both by an advisory board (see below) and by the inclusion of the head of the Advisory Board or the Armenian Bankers Association in the Council, or, if necessary because of a conflict of interest, another financial community representative. It may be best that this role be as a non-voting member. This will require that all decisions be made by consensus of the two voting members, but this is likely in any case.

The general approach of this program is to use the funds in ways that help the housing finance system to evolve. Thus, intrinsically, the program itself should evolve significantly over time, as mortgage lending and the Armenian financial markets mature. For example, while the initial program involves direct refinancing of mortgages through GAF making loans to partner banks, in the future refinancing could be accomplished by GAF purchasing mortgage-backed bonds issued by the same banks. Reflows to GAF-M will be large and frequent because banks will repay the loans at scheduled maturity, no more than five years after origination. Because of these considerations, the team recommends that GAF-M form an advisory board in due course for the purpose of obtaining knowledgeable advice on future adjustments to the program's structure. Board members could include representatives of the 3-4 more active mortgage lenders, both banks and credit cooperatives, the head of the securities commission, and one or two other officials whose agencies could play a significant role in further mortgage lending development.

5.C Bank Selection Factors

The GAF-SME program in effect employed a three-stage competitive partner selection process. A bank had to pass each stage to be further examined in the next stage. The stages were: examination of a bank's financial stability; examination of the bank's interest in and capability for participating in the program; and, its performance in a 2-3 month trial period during which a bank made some SME loans with its own resources. The second stage was carried out through on-site interviews and visits by IPC staff to the applicant banks.

The team envisions the GAF-M program following the first two stages of the selection process. The third is impractical given the allocation process, described below, although partner banks' early performance will be carefully monitored. Also because banks will repay loans from GAF-M as the GAF loans come due in a maximum of five years, the risk of the funds not be put to best use is very modest.

There is a significant difference between the SME program and the mortgage one with respect to the selection of Participating Banks (PBs). The SME program was innovating an important and difficult new product and thus was looking for a few PBs that would commit significant efforts on their part and receive significant hands-on consultant support in return. The GAF-M program is primarily extending the range of an existing product, residential mortgage lending. Moreover, it wishes to encourage greater competition in this sector. Thus the goal of the selection process is primarily to eliminate any banks viewed as too weak in this sector to maintain quality, not to narrow the focus to only the strongest players.

Because of this different goal, the second stage is viewed more as an opportunity for the consultant to gather information about PBs, both to identify needs for future technical assistance requirements for lenders in general and to search for specific weaknesses that would disqualify a bank. It is important that the PBs have significant capabilities in this area, because individual PBs would not receive major customized support.

Building on the requirements used by the SME program in selecting partner banks,[37] Table 4 lists the factors viewed as particularly important. While banks that have not engaged in home mortgage lending in the past will be considered for participation, banks with a track record will find it easier to prove capacity. On the other hand, additional PBs can be added at any time and become eligible for the next tranche of allocations.

The size of the branch network and the location of previous mortgage lending (shares in and outside of Yerevan) are useful in assessing if the bank can help reach the KfW objective of serving a wide range of clients—not just middle class Yerevan families.

Current mortgage lending operations as indicated by financial results and by good lending practices, such as the presence of a comprehensive mortgage loan underwriting and servicing manual, are strong indicators of a bank's readiness to be a partner. On-site visits would examine a sample of files on outstanding mortgages to obtain first-hand information on underwriting and servicing practices. Equally important is the bank's attitude toward using the MQS that will be developed by the program in cooperation with Armenian banks active in mortgage lending.

[37] The factors used in the SME program were found in, *Tender II: Terms and Conditions for the Selection Procedure of Partner Banks for Participation in GAF, December 6-December 13, 1999.*

Table 4. Illustrative Criteria for Bank Participation

Financial performance

- Record on profitability
- Record of compliance with the most important standards set by CBA
- Record of delinquencies and defaults in home mortgage lending, in cases where the bank has engaged in such lending.
- Size of branch network

Bank policy

- Volume of home mortgage lending undertaken to date; growth in volume over time
- Location of home mortgage lending—in and outside of Yerevan
- Quality of loan underwriting and servicing procedures for home mortgage loans
- Willingness of bank management to adhere to minimum quality standards in originating mortgage loans and to maintain loan records in standard format
- Willingness to dedicate the necessary resources to mortgage lending, in terms of number of loan officers, office space, computer support
- Quality, knowledge and enthusiasm of senior manager in charge of mortgage lending

5.D GAF-Bank Agreements and Funds Allocation

Whereas the SME program advanced funds to PBs, the mortgage program will make loans to PBs after mortgage loans have been originated. Therefore, instead of a loan agreement being executed before the first funds advance in the SME program, a two-step process will be employed in the mortgage program. First, a framework agreement will be executed between CBA and the PB, laying out general procedures and obligations of the parties. Second, when GAF is ready to make a loan to the PB for a specified set of mortgage loans, a simple loan agreement will be executed.

One of the conditions for a qualifying mortgage loan is that its term be at least 10 years. However, the GAF loan would be for 3 to 5 years. The loan agreement would contain the provision that at the end of the GAF loan period, the interest rate on the mortgage would be reset to the interest rate then being charged by the bank on new mortgage loans. The idea is that with the GAF loan and the interest rate reset, the bank's interest rate and liquidity risk would be the same as if it issued a 5-year or 7-year loan.. This comparatively short GAF-M loan term allows the GAF funds to finance more mortgages and to be used to shape policy parameters more frequently. (This is further described in Section 4.)

The GAF-SME program has a very simple rationing/allocation mechanism. First, it includes only the minority of banks that were approved for participation. Second, these banks are served in a fashion of first come-first served, subject to a ceiling of refinance not exceeding 50% (initially) of their capital.

Moreover, they are informally assured of rollover of their refinance at the end of its maturity (initially 3 years and now 5 years). There is little discretion at this point over who gets the funds or how they are used.

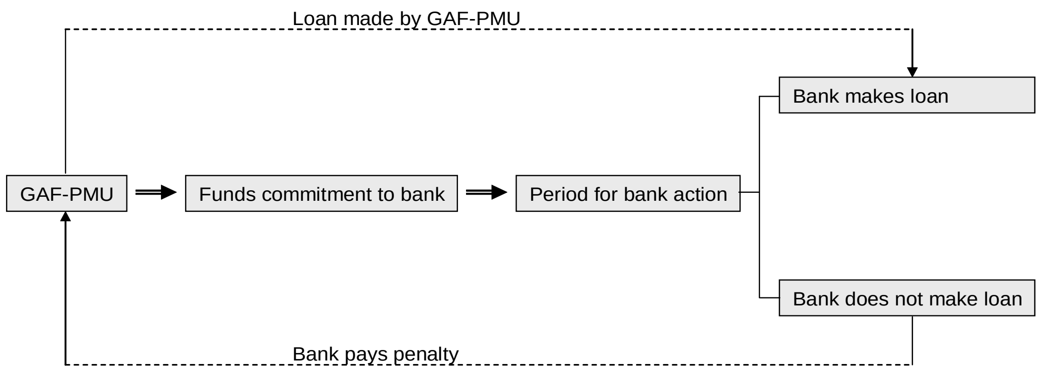
The GAF-M program would be open to a relatively large number of banks. In other words, there may be a pool of 10-12 lenders who seek and receive general approval. Although not necessarily the case, it is possible that the amount of funds being sought at any given time could significantly exceed the available funds. How much need there is to ration access to the funds will depend on how "burdensome" the requirements are for each tranche. The need to ration will also depend on the degree to which the funds are "underpriced."

Two options for allocating GAF-M funds are under consideration. Under both, a bank obtains a commitment for finance to be provided after qualifying loans have been originated. At the end of each month, the bank would report to GAF on the use of the commitments obtained, including information on the mortgages originated, and GAF would issue the corresponding loan. Failure to use a commitment within a specific time limit would result in the commitment being withdrawn and the bank assessed a penalty of 0.5 percent of the unused commitment.

One option for allocating limited funding is to use an auction process that would direct the funds to those who most highly value them. Since government debt is auctioned, the process is highly familiar. A bank will obtain a commitment for a block of finance and have 120-180 days to use it. Auctions could be held every 3 or 6 months.

The generic GAF-PMU commitment and funding process is shown below in Figure x. The "funds commitment to a bank" can be either through auctions of through the "window" process described below. Commitments are funded after the bank makes the loan, or the bank pays the penalty for unused commitments after a defined period.

Figure x: GAF-PMU Loan Commitment and Funding Process



However, rationing solely by price may get in the way of other objectives. For example, a major objective is to push the market in general to adhere to the MQS and to offer AMD loans with flexible rates for 10 years. If only 3-4 banks bid away the bulk of the funds, such adherence may not become widespread. In addition, it should be desirable that there be on the market more than a few lenders offering loans in AMD and/or for 10 years.

In addition, there seems likely a resistance to forcing competition by price for the funding. Not only is such an approach novel, but the multiple other requirements are already creating a certain amount of uncertainty in the venture, and adding another layer in the form of having to guess at the optimal bidding strategy may discourage participation.

The second option is for GAF to have a "window" where the interest rate on loans available from GAF for refinancing qualifying loans is posted every 3 or 6 months. A PB can apply for and obtain a commitment prior to issuing the end loan (or can bring loans made earlier that have not been "refinanced" already). To avoid allocation entirely on a "first-come, first-served" basis, individual PBs would face limits on their access to commitments each period (e.g., 10-15% of the total), but these would change over time if the allocations reserved for other PBs are not drawn down. In this case, drawn down commitments would have to be used within 60 days and the same penalty of 0.5% would apply to unused commitments. The window would be open continuously or until the funds allocated by GAF for loans in a three or six-month period were exhausted.

A balance between all of these considerations might be to organize the initial allocations around pricing the interest rate at about 1.0% below the cost of attracting term deposits at the medium-sized banks. (Most banks are offering 7.5-8.0% currently for 6-month term deposits, which implies an all-in cost of such funds of at least above 8% and thus an initial refinance rate of 7%). This below-market pricing would be complemented with an initial cap on the allocation from each tranche to any one lender of 10-15% of the total available. If this still leaves excess demand, the awarded amounts would be reduced pro-rata. If this leaves more supply, the excess would go to those who requested more than the limit and any amount still remaining would simply wait for the next round, when pricing can be adjusted to assure take-up.

Are these amounts sufficient to be of interest to the lenders? Currently, most lenders have total loan portfolios of AMD 225-450 million. If a total of 6 million euros is made available in the first year of the program operation, this would permit two tranches of, say, almost AMD 1,800 million each. Ten percent of such a tranche is AMD 180,million, which is a large amount for all but the largest lenders to utilize in six months. (We do not expect the very largest lender, HSBC, to be interested in the funding, because the cost of funds will be higher than its internal cost of such funds.) Thus, such a tranche should support an allocation to at least 8 lenders.

In both cases, actual disbursement of refinancing would take place at the end of the calendar month that the commitment is used. There may need to be a minimum amount of disbursement, say AMD 50 million, because of the cost of record keeping.

The distinct advantage of the window option to banks is that it avoids the uncertainty about being able to use commitments being bid for in an auction format. In practice, PBs can either simply make the loans and then apply for a commitment or draw down a limited amount of commitment and see how many end loans they make. Both perspectives minimize the key uncertainty associated with program, whether mortgage borrowers will be interested in taking loans that are quite different from those now widely accepted, i.e., in AMD for 10 years with a variable interest rate.

Use of either allocation procedure implies that GAF will be issuing more loans to banks under the mortgage program than it has under the SME program. By June 2005, the SME program had issued around 40 loans to PBs since 1999. Under the mortgage program, if 8 banks participate regularly, GAF could issue 96 loans in the first year, assuming each bank originates at least one qualifying loan each month. If the window option were adopted, it would issue many more loan commitments. Particularly under the window option, the task of tracking outstanding commitments and their use would be significant. Establishing the computer program for such tracking would be a task for the Project Consultant. The GAF PMU would operate the window, preparing the commitment documents for GAF.

5.E Security for Sub-Loans

The issue here is the strength of GAF's claim in case of partner banks failure. Under the SME program, the loan agreement has a provision (Art. 9.1) for claims due under loans made by the partner bank with program funds to be deemed assigned to CBA at the time GAF notifies the bank that it is in default, for an array of reasons (specified in Art. 8). This provision has not yet been tested in practice.

The mortgage program would initially employ a similar strategy. In the second or third program year, the GAF's claim may be strengthened by requiring PBs to assign a claim under the mortgage to the CBA. Transferring the mortgage rights themselves to CBA would be expensive and administratively inflexible, so changes in the law would probably be required before that action would become standard practice (see Section 9). The primary objective in strengthening the security in this way is to implement another element of the full set of transactions necessary for mortgages to be used as explicit collateral in mortgage bond issuance. Additional legislation is needed for such assignments to be made, as described in the "Legal Report and Advice to Counterparts."

5.F Loan Quality Control

In the SME program, quality control was maintained by a member of the consultant team being a member of each PB's Loan Committee that decided on whether to issue the loan. For the first two years, the consultant participated in every loan decision. Thereafter, the threshold loan amount for the consultant's review was steadily raised.

Additionally, the GAF PMU auditor conducts an annual audit of each PB's portfolio. About 70 percent of the loans are reviewed. Since the consultant stopped reviewing all loans, this constitutes an *ex post* loan review. The auditor prepares a formal statement of findings that GAF shares with the bank. Where the auditor finds problems with a loan, GAF is advised and the bank is sent a letter about the case. The loan is not removed from the GAF-financed portfolio, however. If a bank is found to have an excessive number of poorly underwritten or serviced loans, it could be dropped from the program. Finally, during the CBA on-site audit of a partner bank, the GAF-financed loans are subject to the same review as other loans; but there are no special instructions to the auditors for these loans.

For the mortgage program a different approach is envisioned. For the initial year of a bank's participation, for loans to be funded with GAF money, a staff member of the PMU with support of the GAF Project Consultant would review the loan package before its submission to the Loan Committee with the objective of ensuring that MQS were followed. Where they were not followed, the Project Consultant would argue for the underwriting to be redone and, if necessary, the loan rejected. The consultant's staff will work with PB loan officers for the first year that the PB participates in the program, checking loan packages before their presentation to the Credit Committee and mentoring staff.[38] Sufficient resources should be included in the Project Consultant's contract for this purpose. Given the volume of loans to be refinanced (less than 500 per year), a single consultant, supported by local experts, should be able to work with the partner banks and on other tasks.

In principle, every loan would be subject to review against the standards and procedures in the MQS throughout the GAF-M program. In practice, this step would initially be done as noted above, by the consultant working with the PB. In the future, these reviews would be conducted by the GAF staff quarterly following the funding of the loans.[39] Where deviations from key provisions of the MQS are identified,[40] the bank will have to withdraw the amount of that loan from the level of refinance disbursed in the next allocation period. Consistent problems in this regard would cause exclusion from the program.

With respect to loan servicing, the quality of servicing would be checked as part of the GAF's annual audit. During the first year of each PB's participation in the program, the Project Consultant would also check a sample of loans that have always been current in their repayments. During the life of the pro-

[38] It is possible that the MQS could change over time. This would be the case, for example, if lenders could not agree on certain elements in the MQS. The MQS then might be launched with ranges for some parameters that would later be more tightly defined.

[39] One could argue for the review to be done prior to funding. Given that few significant errors are anticipated, it seems unwise to place the reviewers under undue pressure to meet what could be stringent deadlines for completing the reviews, i.e., the end of the quarter. This can lead to poor quality reviews, which defeats the whole quality control system.

[40] The key provisions will be identified by the PMU. They could include violation of the maximum value for the loan to value ratio or the monthly housing payment to income ratio, or the absence of an appraisal of the property's value by an licensed appraiser, etc.

gram all loans experiencing any delinquency would be checked, first by the GAF auditor with support of the Project Consultant during his contract term.

The work load involved for the GAF-M program for quality control is probably of the same order of magnitude overall as in the SME program. There is less up-front control and more *ex post* control than in the SME program. This pattern is consistent with mortgage funding schemes such the sale of asset schemes of Fannie Mae and Freddie Mac. In Germany, the regulator for mortgage banks checks the quality of loans after they are originated and before they are included in mortgage pools for bond issuance. Note that the GAF mortgage program will finance on the order of 500 loans per year. In contrast, the SME program financed a much larger volume: in 2003, 3,794 loans were issued;[41] in 2004, 5,538 were originated and the number of outstanding loans at the end of the year was 4,445.[42]

5.G Training for Partner Banks

One of the key features of the SME program was the intense training that loan officers received. The Project Consultant provided between one and two weeks of classroom training, followed by extensive on-the-job training working on actual applications that lasted 2-3 months. Only after completion of the on-the-job training phase was a decision made about retaining the person as a loan officer. Training participants were limited to PB loan officers. When the Project Consultant's contract is closed, training will be done separately by each bank, according to IPC consultants.

The quality of the SME training is clearly reflected in the high volume of loans issued by the program and the few problem loans experienced. The mortgage project appreciates the need for such training but will take a somewhat different approach in the interest of promoting the adoption of the MQS by as many mortgage lenders as possible, whether they are PBs or not. The mortgage program will partner with an existing training institute that will offer the necessary courses in mortgage loan underwriting, loan servicing, and other elements of mortgage operations (see Section 6). The courses will be developed by the consultant and transferred to the institute. They will use the MQS throughout. So, for example, the practice problems in loan underwriting will follow the MQS guidelines in determining whether the loan should be made. These courses will be open to staff from all mortgage lenders and other interested parties. Within three years the courses will be operating on a commercial basis, as a continuing resource to the financial community.[43]

For course participants from PBs, this training will be supplemented with on-site monitoring by the consultant's staff for the first year a PB has loan commitments from GAF, in a process similar to that employed by the Project Consultant in the GAF-SME program. . Because we hope that PBs will adopt the MQS for all mortgage loans, loan officers in training will be able to gain experience on all the bank's mortgage loans.

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[41] *GAF Annual Report, 2003*, p.7.

[42] *CBA Annual Report, 2004,* draft, no page number.

[43] More information on the courses and the training institutions' assessment can be found in Section 6 and Annex 5.

5.H Bank Use of Loan Repayments

Under the SME program, PBs retained loan repayments until the end date stated in the loan agreement with the CBA. At that time, the bank was to repay GAF. During the life of the loan, the bank pays the interest to GAF. In practice, GAF has extended or reissued the loans to PBs, so that for practical purposes loan principal has not yet been repaid. The interest rate on new agreements was changed once so far during the project. In sum, PBs have had continuing use of the funds, although it is possible for the interest rate to be changed from time to time.

A different model will be employed in the mortgage program. Banks will make regular interest payments to GAF on the outstanding loan balance during their life and then a bullet repayment of principal at the end of the loan period. There will be no rollover of the refinance loan. The funds can be regained only by participating in another allocation and issuance of a new loan meeting the criteria applicable at that time.[44]

It is recognized that the mortgage end loans will exhibit two relevant features, normal amortization and also partial prepayment or full repayment. These could be reasons for early repayment of the refinancing, but it is expected that most PBs will be continuing in their mortgage lending business and that it is important that the PBs become accustomed to managing the asset-liability balance with fixed-term liabilities such as these refinance loans. Thus, normally, such repayments, whether scheduled or not, will not require an early repayment of the GAF loan. Once a more formal approach is taken to requiring collateral (as noted above), then procedures for alternative collateral, either eligible loans or state debt, will need to be installed.

However, we do propose that, at the end of each calendar year, the lender report the size of its portfolio of loans that, at time of origination, met the requirements of the program, i.e., 10 year, AMD, MQS. In this case, loans that the lender chooses to make on its own, without being brought to refinance, can count. If there are not enough of that kind, and the lender does not remedy this shortfall within 90 days, the lender will need to repay a part of its refinancing funds, so that the outstanding stock of refinance is less than or equal to the remaining amount of principal on the loans originally qualifying for refinance.

This procedure has two benefits. First is that there is no chance that the refinance funds could be linked to other sorts of lending activity not endorsed by the program. Second is that there will be more reflows of funds to keep up the interest of the lenders in marketing and originating the sorts of loans that are being promoted by the program.

It is possible that a PB will wish to make an early repayment of the refinance loan. This could be negotiated on a case-by-case basis with the intent to protect lenders from significant losses if they face unusual prepayments on the end-loans in a declining rate environment.

[44] This position could be modified if there is a verifiable concern that lenders will not have the AMD deposits to fund these loans for their last 5-7 years of life. In that case, reflows could be made available on a priority basis for such a purpose, but only up to the amount of the remaining principal on the loans initially brought for refinance and only at the rate at which new allocations are being made.

Note that a loan agreement could be for a relatively small amount (as little as the AMD 50 million noted above). There will be a constant stream of such repayments coming into the GAF. Under this procedure, the GAF will have more funds for reallocation than it has had under the SME program. Also, the stream of repayments would be broken down into relatively small tranches, so as to avoid causing cash flow issues for the PBs.

5.I GAF PMU Staffing

The main difference between the SME and mortgage programs in terms of the GAF's duties will be in the volume of loan agreements to be issued to PBs and in the complexity of tracking the mortgage loans associated with each loan to a PB. It is likely that interest rates charged to PBs will change more often in response to both market conditions and the step-by-step achievement of project's goals with respect to the type of loan product PBs are offering.

These differences from the SME program imply some augmentation of the GAF's PMU staff. Regarding advice on setting the interest rates, the consultant is expected to take the lead in suggesting changes and providing a rationale for the size of the change. It seems wise for GAF to have additional advice on this critical point, in part just to ensure that good decisions are being made and in part for it to gain experience in setting the rate for the time after the consultant's contract expires. These services should be obtained on a out-source basis. . Specifically, 2-3 local financial experts could be engaged on an as-needed basis for the life of the project, i.e., to be used when the PMU senses it may be time to adjust the on-lending interest rate. In the first year or two, the Project Consultant would participate in the panel's deliberations.

GAF will need a full-time auditor to conduct the quality control on loan origination and loan servicing outlined above. This position is similar to the one it created for the SME program. Staff will also be responsible for checking adherence of each mortgage loan financed to the MQS.

In addition, the GAF will need in-house capability for tracking GAF-PB and PB-mortgage borrower loan agreements. It is expected that the Project Consultant will set up the necessary data systems, including report generation capability. Still, a GAF PMU staff member will need to closely monitor the funding commitments made, the reflows expected, and the funds available for future commitments. This information is key for commitment operations. Tracking of the status of mortgages that have been financed under the project on a mortgage loan level basis—payment status and whether still in effect—for each of the GAF-PB loans to provide an accurate picture of the portfolio's performance. Again, this type of monitoring is a step along the path of developing capabilities that will be needed by a true refinance facility in the future.

5.J Participation by Other Donors

The specific participation under consideration here is the financing of mortgage loans made by banks and credit organizations over the next several years. Such participation could be extremely valuable as the incentives for lenders to adopt the MQS and other procedures would be greatly strengthened if the volume of refinance available were greater. Cooperation appears to be highly feasible.

Two levels of participation are envisioned, referred to here as "cooperation" and "integration." Under cooperation, another donor's financing program would at a minimum adopt the same MQS as those used by GAF. To promote this, the contractor should work closely with any interested donors discussing the MQS implementation. An additional, highly valuable consistency would be the adoption of key loan product elements, especially lending in AMD, the term of the refinancing loan relative to the mortgage loan term, and the resetting of the mortgage loan interest rate at the conclusion of the refinancing loan to the bank. Other donors could help support the technical assistance to "their banks" for assuring high loan quality, particularly funding the mentoring of PBs and monitoring the adherence of individual loans to the MQS.

Integration involves even closer cooperation between GAF and other programs. Integration would apply to lenders that both GAF and the other donor qualified to participate in the program; again, it is important for the standards of other donors to be considered in qualifying banks at the outset. GAF would allocate funds to banks for both organizations, either through the refinance window or commitment auctions. The same rules for GAF loan repayment would apply to the other lender. Two options are available for the actual funding of the commitments. First, if the other donor assigned the funds to GAF, it would then fund the commitments for the other donor as well as on its own behalf. In this instance, GAF would receive its fee of 0.75 percent from the bank as part of the banks' interest payments. Terms between the CBA and the other donor would have to be negotiated.

Second, if the other donor prefers to have a "bank to bank" relationship with the PBs, then it would fund the loans directly and repayments would come to it. Funding commitments would still be made through the auction or window mechanisms but with the donor's funds used to fund mortgage loans for the banks with which the donor has decided to work. The PMU would provide quality control on the originated loans, as described above. If the donor is working with a partner bank new to the program, the Project Consultant or, in later years, the PMU would provide the initial mentoring (beyond the formal courses) in loan underwriting and servicing. It is assumed that to avoid confusion, the general loan agreement and the specific loan agreement between the donor and the PB would be the same in their key provisions. The fee charged by GAF for its allocation and quality control services would be subject to negotiation.

6. SUPPORTING MEASURES

6.A Establishment of Minimum Quality Standards

The GoA supports the development of fully integrated primary and secondary markets. With the appearance of a secondary market, banks that originate and service mortgage loans can seek refinancing of their mortgage loans portfolios through that market, either directly tapping the capital market or through a working secondary market operator. In either case, the cost of such funds will depend on the quality of the loans being made in the primary market.

The quality of the primary market depends on several elements, but none more so than the quality and consistency of the underwriting standards being used and the servicing being done after origination. When investors are being asked to place their trust in the loans as backing for securities, the minimum standards in these regards become critical. Thus, the main function of Minimum Quality Standards (MQS) lies in the setting of standards in all areas of the mortgage lending process, which comprises loan origination, servicing and risk management.

A successful application of MQS in Armenia, however, requires a broad acceptance within the financial community. For that reason, the team organised during its fieldwork discussion rounds for all Armenian lenders in order to win their joint support and assistance to draft MQS that take into consideration the Armenian context and allow to deduce the necessary recommendations in order to improve the lending standards applied by the lenders. As a further prerequisite, the team views a good co-ordination and interaction between the supervisory bodies and the lenders crucial to facilitate the introduction of MQS. During the fieldwork, the team conducted interviews with various Armenian lenders active in mortgage lending to collect information about their lending practices. In order to draw their attention to this topic and to raise the lenders' support, the team organised through the Financial Banking College Foundation two discussion rounds. The first took place on 8 June 2005 with all Armenian banks with the participation of KfW, CBA, MoFE and the Union of Armenian Banks (UAB).[45]

For this discussion round, banks were asked to present their lending practices and to discuss issues around the mortgage lending process (e.g. checking of creditworthiness, data processing, arrears management etc.).

The second discussion round took place on 7 July 2005. The team presented the findings of the Armenian lending practices during the fieldwork and compared them with international standards out of which recommendations were made in order to improve the lending procedures of the lenders. These recommendations were discussed with lenders in order to refine the findings.

In order to develop MQS for Armenian lenders, the team suggests to model them along the value chain of the mortgage lending process, which is illustrated in Chart A3.1 in Annex 3.Typically, a mortgage loan is processed in three steps: origination, servicing and funding and risk management. In every step, a certain set of functions is fulfilled (see enumerations in every box).

According to Table A3.1 in Annex 3, banks that have become active in mortgage lending have introduced some standards, albeit to a different level. Differences to the common practices are described below:

Origination

Most of the banks conduct interviews with potential borrowers, which serve as a pre-screening. Typically, the loan officers provide the customers with the forms to be filled out and informs about the prerequisites for underwriting and the conditions of the mortgage loans. Typically loan requests are processed in the credit department.[46]

45 Names of the participants are listed in Annex 8.

46 The credit department manages both mortgage loans and consumer loans. There are not separate departments for mortgage loans.

Information requirements do not differ to a large extent. All banks ask for in-depth information about the employment of the borrower (current and previous employers). Seldom do banks require in the application forms detailed information about any co-borrowers or information about the property to be pledged.

When banks check the ability to repay, they typically refer to the proven income of the borrower, thereby only relying on the documented income (e.g., in salary reports of the employer). But half of the banks also take into consideration remittances provided that the borrower is capable of proving the regularity of the payments. The same rule applies for other regular but unreported income. Every lender has an individual approach to assess the ability to repay. All lenders confirmed to the team that they face considerable difficulties in assessing the borrower's creditworthiness given the unstable income situation in Armenia and the importance of hidden incomes which are difficult to trace. In any case banks thoroughly check the employment details of the borrowers.[47]

Typically, an independent, but certified appraiser provides property evaluation. It seems that the banks have not implemented reporting standards for the appraiser. Some banks do the appraisals with their own staff. However, every bank insists on a visit of the property to be pledged. Maximum LTV ratios vary from 30 – 70 %. Often, banks have a maximum loan limit (USD 20,000 – 250,000).

The standard form to register the mortgage is the three-party contract. For the loan agreement, banks conclude a separate agreement with the borrower. Some banks, especially in the case of home improvement loans disburse the loan amount in several tranches.

Servicing

Typically, loans are processed with software that appears to the team is a simple loan tracking system. However, it contains no functions for a sophisticated processing of the mortgage loan data (geographical distribution, maturity profiles etc.).

In addition, the monitoring seems to be limited to regular repayments. Most of the banks have so far done mortgage lending without regular reviews (of the borrower's ability to repay or the value of the pledged property).[48]

Banks have tried in vain to introduce pre-payment penalties.[49] However, some still apply them. Most of the banks have introduced notice periods (e.g., one month) in the case of a pre-payment by the borrower.

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[47] Most banks noted that the checking of the income appears as one of the most challenging tasks for the banks since many clients provide incomplete or false information (or documents). While foreclosure procedures have been substantially reformed in Armenia, they are still largely untested because very few recent loans have gone into default. Banks anticipate that foreclosure could still be an uncertain, lengthy and costly process, so creditworthiness relies largely on the cash flow of the borrower rather than the value of the collateral.

[48] Some banks report that they undertake occasional surprise visits. Moreover, they do not allow for major changes of the pledged apartment.

[49] See R. Struyk et al., Pre-Feasibility Study of the Housing Finance Market in Armenia, October 2004, page IV.

Risk management and funding

Some banks have laid down their mortgage lending practices in a manual. These manuals contain precise information about the approach how to proceed with a mortgage loan application. Other banks only introduced some vague guidelines or solely rely on the skills of their loan officers.

The team recognises that most of the banks do not possess clear rules how to tackle borrowers in arrears. Some banks state that they have not yet experienced late payments.[50] Those banks that possess guidelines set a deadline for the borrower in arrears (ranging from 7 to 10 days) and visit the client at his/her home. If the client fails to pay, a second deadline will be given to the customer (often 30 days). After this period, the banks will start the foreclosure process.[51] In order to avoid lengthy foreclosure processes, some banks state in the three-party loan contract that they are entitled to organise the sale of the pledged property in case borrowers fail to meet their obligation.

6.A.1 Conclusions and recommendations on MQS

In Armenia, the application of certain standards in mortgage lending appears to the team not to be a new issue for banks and credit organisations. According to UAB, this topic was discussed in one of UAB's committee meetings. However, concrete actions have not been taken yet in order to establish joint MQS applicable to all banks.

The team recognises that banks active in mortgage lending have introduced certain standards. However, they differ from bank to bank.

In order to develop Armenian MQS, the team gives the following recommendations:

Origination

The main objective of the underwriting process is to identify the clients that are very likely capable of repaying the loan and provide the clients with the relevant information related to the mortgage loan process. The latter becomes apparent in the advice given by the loan officers and the application form and other documents handed out to the borrower.

The former ensures that the borrower is capable of making regular and timely payments. The stability of the borrower's employment at the time of the loan application and in the future is therefore crucial to the bank. The team recommends that the borrower should prove an uninterrupted record for a certain period (e.g. two years).[52] In this regard a thorough analysis of the borrower's assets is recommendable.

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[50] The team believes that some banks rely on the existing culture in Armenia in favor of paying one's debt, stemming in part from the strong family bonds. One banks reported to the team that its borrowers show up when they face difficulties. A further reason is that many banks have only recently started entering into mortgage lending. Therefore, experience with default and foreclosure may be limited.

[51] Some banks process these loans in special department (for delinquent loans).

[52] Because of the social-economic changes in Armenia during the last years, borrowers may face difficulties showing a stable employment record. As a consequence, banks should evaluate the borrower's employment history to determine the probability of

For example, if a substantial deposit has been made in the last two months prior to the loan application, this may indicate that the funds are borrowings.

The property appraisal should also encompass an analysis of the neighbourhood i.e. access to public transport, distance to facilities such as kindergarten, schools, work place, hospital etc. as well as prospects of price developments in the district of the property to be pledged.[53] A further requirement could be minimum standards for health, safety and supply of utilities to the property in question.

Servicing

The main goal of servicing is to secure an efficient management and monitoring of the mortgage loan account operation and the relationship from draw down to redemption of the mortgage loan. It also serves to produce a quick access to information about the individual mortgage loan and the whole mortgage loan portfolio. A highly automated processing systems will lead to lower cost and a better tracking of missing payments and documents. In the context of secondary markets, the quality control of the documents help to verify compliance with investors' information requirements (and to avoid possible repurchases of non-complying mortgage loans). Finally, servicing focuses on an improvement of customer service to handle requests and maintain customer satisfaction and retention.[54]

The team believes that the main task to Armenian lenders is to invest in software programmes in order to improve the servicing quality of their mortgage loan portfolios.

Risk management and funding

The reason to include this function is to assist lenders in proving that capital and shareholder funds are being prudently managed and that appropriate risk management controls are in place, i.e., mortgage loans are underwritten in concordance with clearly defined standards and the credit risk management underlines prudent and good business practices. In this context, the team recommends that the banks should be required to perform extensive ALM and Value-at-Risk analysis to assess overall portfolio risks.

The existing credit policy manuals needed to be widened by guidelines that define the credit policy in mortgage lending. These mortgage lending manual is considered a tool to facilitate the taking of acceptable risk in mortgage lending by setting parameters within a lender structures, approves and manages mortgage credit facilities and credit relationships. It does not only give clear guidance and direction to staff but also demonstrates to potential investors and rating agencies the type and style of risk management in place.[55]

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continuance of employment and ability to find a new job without loss of income. Many Armenian lenders do require information about the current and the previous job positions of the borrower. For self-employed people, a minimum of 18 to 24 months of self-employment in the same business is considered a good indicator for viability of the business.

[53] An adequate measure may be sales prices and rents of comparable properties within this district.

[54] See M. Lea, Loan Administration/Servicing Overview, presentation given at Wharton International Housing Finance Program, Philadelphia, June 2005.

[55] They will require detailed reports on the lenders mortgage portfolio in order to buy/rate mortgage bonds or MBS.

The team recommends regular review of the credit and servicing policies so that changing market conditions are taken into consideration. Also, lenders need to stay apprised of changes in the legislative framework for mortgage lending, to assure that advances in creditors' rights adopted in new laws or amendments are reflected in the MQS, particularly those relating to loan documentation and collection procedures. Examples in the new legislation proposed by the Working Group and now under consideration that, if enacted, should be taken into account in MQS include the following:

1. provisions that clarify title and registration procedures for apartments;
2. procedures that allow lenders to sell property directly to third parties after foreclosure rather than through auction (permissible as long the mortgage contract does not prohibit this);
3. procedures for collecting and maintaining a security deposit required of a defaulting borrower who challenges a foreclosure procedure in court; and
4. MQS for rights of construction taken as collateral for a loan.[56]

6.B The Potential for Contractual Savings Schemes in Armenia

Part of the feasibility study included considering the possibilities for an effective and stable CSSH. This section gives an example of such a scheme, based on analysis in Annex 4 and discussions with the lenders during the fieldwork. Further analysis and details are provided in Annex 4.

The team recommends that CSSH be implemented in the form of an open system in order to avoid the potential difficulties and hazards of a closed system. In this context, the interest rate setting should be variable in order to avoid a surge in cost of funds (i.e., interest rate risk) in case market rates fall or increase.

The team also recommends that CSSH should be open to all market participants, i.e., operated within the banks.[57] Since the Armenian market is very small, it remains doubtful whether a specialized institution would be viable in the long run.

On the other hand, CSSH funds should be separated from other activities and separately shown in the balance sheet in order to facilitate supervision. CSSH should be subject to special regulation, due to the lower risk profile of the product. The regulation on CSSH should be in line with the overall banking legislation of Armenia.

Regulation must assure high supervisory standards in order to protect the savings of the customers and to keep waiting period balanced. The team believes that CBA would be the appropriate regulator and supervisor of CSSH since Armenian citizens have confidence in the strength and reliability of this institution. However, regulation should make it clear that CBA would be not the guarantor of CSSH in case banks face difficulties in meeting the contractual obligations of CSSH, thus allowing customers to claim payment of lost savings from CBA.[58]

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[56] For details on the proposed legislation, see *Legal Report and Advice to Counterparts (July 2005)*, a separate report prepared by the legal experts on the Feasibility Study team.

[57] Credit organizations are not entitled to collect savings from the public.

[58] CSSH savings should be covered by the Deposit Guarantee Fund.

In addition, the team recommends that CBA also grant CSSH licenses in order to ensure an appropriate management of CSSH. A failure of a CSSH could severely dilute the rising (though weak) confidence in the banks.

The team does not recommend the introduction of a savings bonus (subsidy). However, it may be worthwhile supporting the banks that operate such a scheme indirectly, i.e. through other policy instruments. The following variant seems adequate to the team:

- *Lower capital adequacy requirements for CSSH loans*. Default rates of CSSH loans are usually much lower than those of regular housing loans. Therefore, lower capital requirements would be justified. They will provide a good stimulus to the banks. Since banks are asked to separate CSSH funds from other activities, CBA would be capable of correctly tracking the loans.[59]
- *Lower minimum reserve requirements*. Savers will commit their money for a longer than usual period. Through the regulation, banks are obliged to prudently manage these funds. This measure could also work as an incentive to get more banks involved in this type of product.[60] The team recommends that such a rule may be set for revision after a certain time (e.g., 3 – 5 years). Clear criteria should be defined when the supervisor could abandon this favorable treatment without harming the development of the product.
- *An increase of the deposit insurance coverage* would be also an option. However, the current ceiling of AMD 2 million appears to the team sufficient since most of the loans are expected to be used for renovation/modernization, thus contracted saving amounts will rarely exceed this amount in the start-up phase of CSSH.

The team suggests the following general design:

- The customer should save at market rates in regular instalments. Since these savings are long-term, the rate should be fixed at least for one year (better two years) until a reset is considered (to adapt the interest rate to changing market rates).[61]
- Since CSSH will be offered in form of an open system, the following rewards are recommendable. It is up to the bank to decide whether these rewards apply simultaneously or individually or in any combination of two[62]
    - The customer should benefit from a lower interest rate on the loan (e.g. 150 basis points). This reward will be deducted from actual market rate on conclusion of the loan agreement.
    - The bank will grant a higher loan amount than the savings amount (e.g. a multiplier of 2). Since it is an open system, refinancing of these loans can be done through the market.
    - The customer will benefit from a longer repayment term, thus lowering the actual redemption rate and raising the overall affordability.

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59 CBA indicated to the team that mortgage loans in general may be subject to a different risk weight in the future.

60 The team recommends that regulation should define strong criteria for CSSH deposits in order to avoid window dressing by the banks in order to benefit from preferential reserve requirements for other types of deposits.

61 Banks already offer term deposits with the interest rate fixed for one year.

62 Bank may only select one alternative or offer a mix of all three. All these incentives are justified because of the lower credit risk. Therefore provision cost would be lower. Eventual support of CBA (in form of lower capital requirement and/or lower minimum reserve requirements) will also add to lower cost for the bank.

- In any case, the bank reserves the right to decline a loan offer in case the customer is not credit-worthy. In this case, the bank will pay back the savings (including interest) to the customer.
- Contract could be denominated either in USD or AMD. This rule should be also valid for the loan agreement in order to avoid currency risk for the customer.

To give an example, the model can be structured as follows (see chart 1).[63]

Chart 1: main features of proposed CSSH contract

Contract amount in savings period (in USD)	USD 5,000
Interest rate for savings	5% p.a.
Interest rate for loan	Minus 150 basis points from actual market rates on conclusion of loan agreement
Contracted savings tenure	3, 4 or 5 years
Payment	Monthly
Allocation of loan	On completion of the contracted savings tenure
Loan amount	USD 5,000
Redemption of loan	In equated monthly instalments (calculated on the basis of the amount and tenure)

Source: Roy

In this model, the loan multiplier will be 1 (i.e. the difference between the contract amount and paid-in savings).[64] Allocation of the loan will be provided if the savings time is completed (after 2, 3, 4 or 5 years), the stipulated savings contributions are paid in and the customer is creditworthy.

The purpose of the loan is purchase/construction of a house, renovation/modernisation or repayment of an existing housing loan. The maximum LTV ratio should be 70 % and a mortgage is taken as security. Pre-payments are allowed without any additional charges.

Banks provided the following feedback to the team:

Banks view CSSH as a product to expand their client base and to attract long-term funding. They suggest that 80 – 90 % of the funds will be used for home improvement loans.[65] Due to the still rising property prices in the country (especially in Yerevan), a use for home purchase or construction is unlikely.

Potential customers would tend to be from lower and middle income groups which face difficulties accessing credit. However, this group will need a regular income in order to afford regular saving instal-

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63 The interest rates on the savings reflect current market conditions during the field work. The should be finally set once a bank decides on the introduction of the product.

64 It is up the bank whether it will include the interests accumulated during the savings period into the savings amount. In this case, the customer would achieve a quicker allocation of the CSSH-loan.

65 Co-financing with a regular mortgage loan is currently not regarded as an option by the banks. This feature is common in Germany and Austria.

ments. In this context, public sector employees may be an interesting target group for CSSH. It is not of importance whether the income consists of official or legal but unreported sources.[66]

Banks would prefer to start the scheme with a multiplier of 1 and switch to higher multipliers at a later stage when they will have gathered more experience with the product. They consider the savings period an obstacle to sell this product.

According to the banks, the success of this product depends on a quick availability of the loan after the completion of the savings period and a proper management of the savings. Therefore, regulation and supervision of the CSSH seems desirable. They agreed that these functions should be fulfilled by the CBA. Its involvement would be perceived as a strong assistance in guaranteeing the stability of the system.

Banks also see the need for more marketing efforts in order to increase the public interest in the CSSH products. Further requirements encompass specific software in order to process a considerable number of small contract.

Banks agree that the savings period serves as a pre-screening instrument of future reliable borrowers. In addition, CSSH could help establish a closer relationship with the client. They also express their preference for an open system since the management of liquidity risk and interest rate risk appears less challenging.

6.C The Need for Accompanying Training

The establishment of an organised and systematic approach to bank and financial services professionalisation is slowly arising. To date, special training courses in housing have not existed. The main provider of bank training courses is the CBA training centre and Financial Banking College Foundation (FBCF).

The team believes that with the risks and developments in the banking sector and in housing finance in particular bound to emerge in the next years, all lenders would benefit from a more co-coordinated approach to technical, financial and management training.

Due to the particularities of housing finance products, a special training need in this area is likely to materialize even stronger as more financial institutions decide to enter into this market segment. They are expected to express a desire to better understand the risks implied and the prerequisites for sound risk management and successful product development strategies.

The team analyzed the training needs of the banks in housing finance and also assessed what might be an appropriate training institute which will be dedicated the task to develop and conduct a housing finance training program. The analysis is in Annex 5.

The team recommends that a training concept should comprise the following elements:

[66] A further component could be remittances.

- An institution should be in charge of the training courses so that training can be offered on a sustainable basis. This institute should meet certain standards and possess appropriate equipment to facilitate the learning process.
- The project concept should emphasize the training of trainers (best local) so that the programs become independent of external help over time and the training institute is able to ensure its continuity.
- The training should serve to qualify staff to do a better job for the employer (banks and credit organizations) and provide a better service to the customers. Therefore, it should focus on practical experiences, case studies and interactive teaching. Moreover, it should adapt to changing needs of the financial community.

The team believes that courses should end with a certificate for which the participants must pass an exam. This certificate could be used to establish qualifying standards for bank employees who want to work in the area of mortgage lending, thus further underlining the efforts of implementing MQS among the financial community. In addition, it would serve as motivator for the participants of the course.

The team identified training needs in the following areas:

- General overview of housing finance systems and funding mechanisms of mortgage loans in other countries.
- Mortgage instruments.
- Understanding of the legal conditions and relevant laws in mortgage lending.
- Analysis of creditworthiness of customers.
- Risk management of mortgage loan portfolios.
- Pricing mortgage loans.
- Delinquency management.
- Communication with the customers.
- Planning mortgage operations in a bank.

During the fieldwork, the team interviewed the Financial Banking College Foundation (FBCF), the American University of Armenia (AUA) and CBA Training Centre (CBATC). In addition, the team interviewed the banks about their experiences with these institutions.

Table 7 summarizes the results of the interviews with the training institutes. The criteria enumerated form the basis for the recommendation which institution seems appropriate to the team to conduct the training courses in housing finance.

Table 7: Comparison of Armenian training facilities

	Financial Banking College Foundation	CBA Training Centre	American University of Armenia
A. The faculty			
Equipment of rooms	+++	+++	+++
Course programme – content	Covers all banking aspects	Covers all banking aspects	Has no focus on banking
Education of teaching staff	Mainly practitioners	CBA staff and practitioners	Professors, lecturers
B. Quality of teaching			
Criteria for design of course program	Oriented toward demand of banks	Takes into consideration needs of banks	Not clear except for English courses which are focused on demand
Involvement of practitioners	+++	+	+
Approach to courses	Strong practical	Weak practical, predominant focus on theory	Strong theoretical background
Review of course content in order to guarantee regular updates	+++	++	++
Quality control of teaching staff	+	++	++

Legend: +++ = described performance from low (+) to strong (+++)
Source: Roy

The team believes that the strong practical approach of FBCF would make it an eligible candidate to become the institution to be in charge of arranging the training in housing finance. It is the only institution that possesses a virtual bank. It would offer a good platform for the combination of practical and theoretical learning. The approach of CBATC is more focused on theoretical knowledge and to a lesser extent practical issues. In comparison to CBATC, FBCF would be also a more neutral platform, thus raising the banks'' willingness to send staff to the training.[67]

In order to become fully eligible, the team recommends that FCBF should meet the following requirements:

- FCBF should implement a trainers of trainer program in order to continue the program when is has been put into practice.

[67] Centralizing training at CBA risks having banks consider this a mere policy measure.

- FCBF should make further investments into a library/resource centre that guarantees a constant update of information both for the students and for the teaching faculty. Ideally, these investments could be covered out of the existing cash flow.
- FCBF should strengthen its quality assurance management and training following monitoring capacity.
- FCBF should seek an authorisation to issue officially recognised certificates in order to establish standards in banking and financial education. Such standards may also be valuable for other training course in other fields (e.g. insurance products).
- FCBF should strengthen its links to the banking community and to international training institutes (e.g. European Bank Training Network) and international operating banks in order to guarantee regular updates of the training program.

After the end of introduction of the training course, the responsible consultant should assess FCBF"s progress and capabilities in order to ensure the continued success of the course and the institution which provides it to the financial community.

The consultants responsible for training and for implementation of the initial rounds of refinance may be called upon to provide policy advice to the CBA or the PMU. The on-site personnel are not intended to be prepared to offer such advice in depth, but the project may want to consider such a capability to reside somewhere within the consulting entity, or available through sub-contract. Alternatively, another donor may wish to offer such capabilities.

7. ACTIVITIES OF OTHER DONORS

The team met with three donors who are actively interested in development of the mortgage finance market in Armenia – IFC, EBRD, and USAID. All are familiar with KfW's work in the mortgage sector in Armenia, including the assessment of the mortgage market for the Pre-feasibility Study of 2004. They are also aware of the SME loan program through the GAF, and are open to future collaboration through that vehicle, either through coordination of technical assistance and training or through committing funds to leverage the outreach of KfW's program in terms of refinance or supporting measures.

IFC. Among its investments in Armenia, which total USD 10 million, IFC has made a USD 2 million loan to Armeconombank, which has a $500,000 set-aside for mortgage loans. The IFC loan is for 5 years, at 8%, disbursed in draws. The bank interest rate is now 16-18%, down from 18-24% at the outset in 2003. At the present time, IFC is also exploring the possibility of investing in Inecobank.

There is no sovereign guarantee for the IFC loans. IFC takes security in the form of a contract provision that grants IFC the right to take over the mortgage rights securing the underlying loans in the event of bank default. This is specified in the IFC-Armeconombank loan contract, which is registered in the cadastre. Each of the sub-loans with IFC funds also carry a provision that consents to the assignment of mortgage rights to IFC in the event of bank default. The rights are not actually transferred through re-registration in the cadaster unless there is a default. At that point, the IFC would go to the cadastre and re-register the mortgages rights for its benefit. This procedure was reviewed and approved by the IFC lawyers and the State Cadaster.

Armeconombank mortgage loans with IFC funds may be used for either purchase or renovation, with a maximum of $30,000 each and 50% LTV. No special standards were required for these loans; IFC felt the bank's standards were adequate. The other $1.5 million is used for SME loans, with a maximum of $150,000 per loan.

IFC is also providing financing for mortgage lending in Russia and Georgia, both of which are considered successful programs. IFC has a technical assistance arm called Private Enterprise Partnership (PEP), which is active in Russia, Ukraine, and Central Asia. In Georgia, PEP provided new origination and underwriting standards for participating banks.

The head of IFC in Armenia said IFC would like to see more active primary market players, and is willing to consider lending to more banks and increasing the ceiling on the amount for individual mortgage loans. He also said that at this time, the emphasis should be on developing the primary market. Only after that is solidly in place should a secondary facility be put in place.

The head of the Armenia office thinks IFC might be interested in participation in GAF refinancing for mortgages. This decision will be made through the regional Financial Markets Department in Moscow. Contact has already been made between KfW and that department.

EBRD. The EBRD currently has no refinancing activity in the mortgage market in Armenia. However, they do have a 25% equity stake in one of the most active mortgage lenders, Armeconombank. They are currently working with four banks by co-financing and risk sharing in microfinance and SME lending – Armeconombank, ACBA Bank, Anelik Bank and Ineco Bank. All mentioned banks are partners to GAF-SME.

The head of the Armenia office said he would like to know that a solid legal framework is in place – for registration, foreclosure, and eviction – before EBRD enters the mortgage market. He said the EBRD Legal Transition Team in London would review the legal assessment in the KfW Feasibility Study, and then decide on how to proceed. The goal would be cooperation, not competition, with KfW.

One clear area for collaboration could be in the introduction of MQS, since EBRD has substantial experience with introduction of standards in other transition countries and has prepared an MQS manual that is being used in several countries, including Bulgaria, Romania and Croatia.

USAID. USAID will issue a tender for a banking–sector TA contract, including a mortgage finance component, with an expected start date of September 30, 2005. The project will focus on assistance to the Central Bank, including supervision, corporate governance, and banking sector development, as well as mortgage market development. It will provide substantial technical assistance, but not training per se. The director of the economic sector for USAID said it was not likely that USAID would contribute funding to the GAF program, but the terms of reference for the upcoming banking sector contract will specifically state that the project should be coordinated with KfW for the mortgage sector work.

How Current Plans of Donors Mesh with the Project

In principle, all of the plans discussed above are supportive of the proposed project. However, it should be emphasized that none of them are as ambitious as the project in developing the primary market. The IFC's refinance to Armeconombank bolsters the resource base of a major player in the market, but does not require the bank to push the terms of its lending, either in maturity or in currency, beyond the previous norms. EBRD has chosen to strengthen the equity base of the same bank. The proposed USAID project would focus on TA to the Central Bank in the housing finance sector among several sub-sectors of the financial sector.

As noted in Section 5.J, there is scope for closer integration of such donor activities with the KfW program IFC and EBRD could follow the pattern proposed for this project, at least in part, by providing refinance for only the first 5 years of mortgage loans and requiring a minimum term of 10 years. This step would strongly reinforce the shift to longer maturities in the market. If these donors were willing to actually work through the GAF-M (not their usual approach), the CBA may be willing to take on the currency risk and then their funds would deepen the funding for AMD lending. These refinance programs could also coordinate their use of standards with the MQS adopted for this project.

The TA that USAID expects to provide would be oriented to development and deepening of the financial sector in general, thereby supporting the potential for future development of capital market access for housing finance. If indeed the decision is made eventually to create a secondary market entity, USAID TA could be a good platform for supporting that process.

Other Options for Donor Support to the Sector

From a broader perspective, there are many additional ways that donors can contribute to the overall goal of developing the primary and secondary markets for housing finance.

The funding flowing into Armeconombank is vital for reinforcing the inherent strength of the banking sector and also the perception of such by the public. If EBRD shifts towards refinance as well as equity, it will bring to bear its well-established practice of requiring minimum quality standards. In addition, both the EBRD and IFC are in an excellent position to provide targeted TA to the banks that they are involved with, especially from client banks in other somewhat similar countries in the region. This could introduce new ideas with respect to consumer disclosure, underwriting practices, management information analysis, asset-liability management, and arrears management.

These same donors could, at some future time and with the backing of a good law on mortgage securities, encourage and assist their client banks to try accessing the capital market through issuance of a covered mortgage bond or a securitization.

Another area that may be worth examining is the offering of mortgage default insurance. Armenia is not very promising in this regard. It is relatively small and homogeneous with respect to the default risks, thus offering little in gains from diversification that might support a private scheme. However, the state may wish to sponsor a scheme, with appropriate safeguards, as a means of providing targeted subsidies to those requiring high LTV loans, or in areas where lenders do not feel comfortable lending. TA for such schemes has been supported by USAID in Kazakhstan and Ukraine.

Condominium governance and upkeep are two additional housing-finance related areas. They are interrelated. Laws supportive of good and effective governance are necessary if the multi-flat buildings are ever to stabilize their maintenance situation. Lending to condominium associations for repairs and upgrade would be beneficial to residents and banks if it can be organized in ways that assure that less-than-unanimity is required and that associations have the ability to compel payment of assessments. These issues can benefit from TA and also from targeted subsidies from the state.

It is almost inevitable that, as the housing finance sector in Armenia grows over time, there will be calls for extending some sorts of subsidy through mortgage loans. This has already happened apparently, with the government actively considering tax-related benefits.[68] Ideally, countries would learn from the extensive experiences elsewhere with subsidy schemes. The World Bank in particular has been active in providing TA on such topics.

8. SUPPORT FOR SECONDARY MARKET DEVELOPMENT

The specific goal of this proposed project is the development of a strong *primary* housing finance market. However, this project is being designed within the context of the KfW taking the lead among donors in the long-term development of a sustainable market in housing finance in Armenia. An important part of any long-term vision for housing finance is the potential for use of funds drawn from the capital markets. This use of the capital markets has become referred to as “secondary market” finance, in contrast to the “primary” market of lender origination and direct funding either out of capital or deposits.

Secondary market development can take two general forms, (1) direct access by lenders or (2) indirect access through a second-tier institution, usually one that is state-sponsored. Within these categories, there are several different modes of operation, including the issuance of corporate bonds, covered mortgage bonds, and securitization, and several different types of second-tier institutions, including liquidity facilities, centralized mortgage bank, or securitization conduit.

The role of the capital markets in general, and the advantages and disadvantages of these modes of accessing them, are discussed in detail in Annex 6. There are three significant conclusions drawn from that overview of the role of capital markets in housing finance.

First, it is unlikely that lack of access to capital markets funding will slow down the growth of housing finance in Armenia, at least for the next 3-5 years or until the share of banking assets in long-term loans exceeds 10-20%.

Second, covered mortgage bonds are probably the most viable of the mortgage securities with which to launch such access to the capital markets for individual lenders.

[68] There is a pattern in such countries of politicians looking to the West, seeing tax subsidies commonly provided for mortgage interest, and assuming that this is good policy. It is certainly popular policy with banks and the upper-middle class, but few of these governments have been adequately briefed on the factors involved in designing mortgage-related subsidies.

Third, all types of government-sponsored secondary market institutions have problems, including the extra costs involved in going through another institution. Moreover, all such state-sponsored institutions have the potential of being re-directed into a more distortionary mode of business. Of the three alternative types, (1) liquidity facility, (2) central mortgage bank, and (3) central securitzing agency, a liquidity facility has the lowest intrinsic risk and is the least likely to be misdirected.

The vision proposed here for a potential secondary market operator, namely a liquidity facility, is somewhat different from that proposed in the CBA report, "Concept for Mortgage Loan Market Development in the Republic of Armenia" and in the Pre-Feasibility Report. Both of these versions foresee the operator purchasing the loans. In Annex 6, this approach is described as a centralized mortgage bank because the institution is then responsible for financing the loans over their lifetime, and for matching its funding to the characteristics of the loans.

This approach suffers from less flexibility in both the characteristics of the mortgage loans and in the nature of the refinancing, as well as greater risk for the institution and thus either greater reliance on an implicit or explicit state guarantee or, alternatively, a higher cost of funding. In addition, such an approach is also easier to shift toward politically expedient but financially deleterious uses.

The use of loans as collateral rather than purchase of loans, i.e., a liquidity facility, is a more reliable model in every respect. Its weakness is that it leaves the task of managing interest rate and other ALM risks with the banks and other lenders. There is no free lunch in this regard, but it is now the judgment of the team that shifting these risks to a state-sponsored enterprise will not necessarily mean that they are better managed and also introduces an element of moral/political hazard that does not exist when the risks stay with a purely private sector entity, the lender.[69]

Given these perspectives, there are several aspects of the design of this project that will facilitate that the appropriate development of the secondary market in Armenia. First and foremost, there needs to be enacted a law on mortgage securities that supports the issuance of covered mortgage bonds. The approach should be designed to reduce the costs involved, increase the flexibility, yet also preserve the risk-reducing nature of these bonds from the point of view of investors. A draft of such a law has been presented as part of this Feasibility Report.

Second, either as part of that law or amendments to other laws, there should be a procedure that permits lenders to utilize their mortgage loans as collateral for a liquidity facility, as securely and simply as possible. Such collateralization needs to be bankruptcy remote and permit immediate access for the liquidity facility to the loans for servicing (or transfer of servicing) in case of failure of the lender, yet be low cost and simple to effect. A proposal for such legislative and procedural infrastructure is also a part of this Feasibility Report.

In addition, there are some very important ways that the GAF refinance window itself can facilitate the eventual use of either mortgage bonds or a liquidity facility or both. Most of these have been noted above in the section discussing the design of that window. They include:

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[69] This shift in perspective is partly due to the recent political corruption of such entities in both Kazakhstan and Ukraine (see Annex 6). Starting off as a liquidity facility does not prevent the later conversion of such entities into risk-hiding vehicles for distortionary policies, but it should make it a little more controversial.

1. Adherence to a set of reliable MQS. This is a necessary step before investors or a liquidity facility can consider relying on mortgages for collateral, either for mortgage bonds or refinance loans.
2. The operation of the window itself mimics both sorts of capital market funding. Bond and LF funding usually comes in the form of bullet loans, most commonly for 3 or 5 years, often at a fixed rate or a variable rate following a specific benchmark. This format would be followed under the GAF-M program.
3. Lenders are expected to build up their skills in Asset-Liability Management and use mortgage designs and funding that contribute to a lower overall portfolio risk profile.
4. The pricing of the GAF-M funding can be changed over time toward the levels expected to apply to capital market funding. This step is necessary so that the existence of the refinance window does not deter the use of capital market funding. Similarly, the willingness of lenders to pay such rates will also indicate the viability of such approaches. This will be especially useful before steps are taken to launch a liquidity facility.
5. The GAF-M funding itself can be re-directed over time toward the purchase of either mortgage bonds or bonds issued by a liquidity facility. (Alternatively, if such approaches become modes of access to the capital market, the GAF-M funding can be used as subsidized funding designed to promote socially desirable re-targeting of mortgage lending.)

KfW also had some specific additional questions about the timing and other aspects of the development of a secondary market operator. These involve the pre-conditions for the creation of some sort of secondary market access.

As noted in Annex 6, the most important pre-condition is that there be some sort of demand for these types of securities. In markets without the benefit of credit rating agencies, it is difficult to sell securities that are not almost risk-free (e.g., due either to the reputation or stature of the issuer or to an implicit state guarantee). In this regard, it may be easier for banks to issue mortgage bonds than plain unsecured corporate debt. In turn, it may be even easier for a liquidity facility, with a low risk profile, an implicit state guarantee and perhaps some other regulatory advantages, to issue bonds than any specific bank. In general, mortgage bonds and LF bonds are probably the easiest ways to start accessing the capital markets for housing finance.

Currently, the domestic market for such bonds is largely limited to banks. Despite this, such bonds could be issued even before there are significant non-bank institutional investors, such as insurance companies, pension funds, or other investment funds. In this case, these financings have a character more like medium-term interbank lending, with the advantage that the loans are tradable. Banks which are net buyers of such bonds will tend to see these securities has higher-yielding alternatives to state debt, and it will be important to them that the secondary market for such debt be somewhat liquid, preferably trading against a state-debt benchmark.

Such liquidity and the all-in cost of bond issuance are both dependent on the size of the issuance. We have no information on the cost of bond issuance in Armenia, but there is information on the Ukraine market. That market is at least 2-3 years ahead of the one in Armenia, with amounts outstanding the equivalent of over USD 500 million. However, the pool of investors remains primarily limited to banks, pending implementation of various pension reforms that have already been agreed. Moreover, there are almost no bonds in Ukraine where either the term is only one year or there is a put option after one year, requiring a rate change and permitting liquidity as well. This is too short of a funding period to make such instruments of interest for housing finance.

In Ukraine, the general view is that the smallest viable bond issuance is UAH 10 million or about USD 2 million. Such small issuances tend to be private placements and have costs of issuance of at least 1.0-2.0%. There are few corporate bonds that show any significant trading (partly because many have been private placements and partly because they may not have been market-priced initially for a number of reasons). Some are reported to have such trading, but it is mostly composed of non-arms length transactions that help to maintain the classification of the securities as "liquid." Trading is discouraged by the low level of domestic state debt in general and the low level of trading in it. There does not appear to be a benchmark rate, the same way as there seems to be some coherent rate determination going on in the secondary market for state debt in Yerevan.

Notably, the typical issuance of GOA debt, about AMD 1 billion, seems to be similar to the minimum amount size in Ukraine, and this seems to be sufficient to permit trading in Armenia. This is probably a good starting point for looking at whether there are large enough volumes of mortgages for mortgage bond issuance or a liquidity facility.

From the point of view of mortgage bonds, there is currently no lender other than HSBC with a portfolio large enough to support such a size of issue. It is not just a question of whether a lender has AMD 1 billion in loans. As noted in Annex 6, it is unlikely that such an amount would cause enough concern about liquidity risk to seek such funding. Rather, such concerns will arise naturally only once a bank's loan portfolio reaches at least 5-10 percent of its assets. Looking ahead at least 3 years, it may be possible that banks other than HSBC will build up a portfolio that is at least 5 percent of their assets and which could easily support a bond issuance of at least AMD 1 billion. Meanwhile, though, it is possible that a UCO might want to try tapping the market through issuance of a mortgage bond.[70]

The scale required to make a liquidity facility viable would have to be much larger, but can be based on relatively small amounts of refinance provided to a large number of lenders. In fact, based on limited experience elsewhere, the total amount of funding being projected for the KfW program, about USD 15 million, may be about half enough itself to support the overhead of a liquidity facility.[71] Thus, a simple indication of whether there is enough demand for a liquidity facility would be the demand for the GAF-M refinance when it is priced at levels similar to that which a liquidity facility would charge.

It is possible even now to estimate what that market-like rate might be. In the case of the Jordan and Ukraine liquidity facilities, the margin required to cover operating costs was about 1.5%. This is added on top of a rate that is paid on their debt. This latter rate can be as low as 0.5% above the rate on state

[70] The issue of currency of the loan makes these prospects more complicated. Presumably, such bonds would be in AMD. Banks and UCOs could use mortgages in USD as collateral for such securities, if there were enough excess collateral to guard against shifts in exchange rates. But to make such an issuance interesting, the lender would have to have good uses for the AMD. This could be further mortgage lending, but in AMD.

[71] The business plan for the State Mortgage Institution in Ukraine indicated that the projected first-year volume of about USD 25 million would yield a small profit. The Jordan Mortgage Refinance Company has been operating at a profit at a level of about USD 75 million. The breakeven point depends not only on the cost structure, but also on the size of the (no-cost) equity infusion. Neither of these institutions have a market-rate ROE at these levels.

debt, if the company is viewed as being very safe and its bonds are accorded a variety of special treatments similar to those granted state debt. In this case, a first approximation as to what the rate the GAF-M program should use to see if there is demand for a liquidity facility would be about 2.0% above the rate on equivalent state debt.

This might be about the rate that a well-regarded bank or UCO would have to pay on an issuance of mortgage bonds, including issuance costs. In that case, these institutions may find it cheaper to go to the market directly than through a liquidity facility. But the bonds of a LF will have the significant advantage of being more liquid because of their larger volumes and their similarity to state debt.

Under current circumstances, where GOA debt for 1-2 years is yielding only about 5%, this would imply a refinance rate of as little as 7.0% for the liquidity facility. This is quite competitive with the rates being offered by most banks for term deposits (7.0-8.0% in AMD). But it is not possible to achieve the required scale yet. The evidence from elsewhere is that liquidity facilities are used to finance only about 20-30% of the mortgage stock. In that case, and based on our projections above, it would be at least 5 years before the mortgage stock grows to USD 100 million. At that point, 30% of the stock would be USD 30 million, probably the minimum scale required to support such an institution.[72]

Moreover, the pool of mortgages relevant for refinance at a liquidity facility does not include all of those for renovations. Many loans for renovations are granted for terms of only 3 or 5 years. If so, lenders may not be concerned about funding such from their own resources. Moreover, because the principal amount of such loans amortizes relatively rapidly, the LF may not want to take them as collateral, since additional collateral will have to added so frequently.

Nor does the pool of relevant mortgages necessarily include those taken with respect to loans to individuals or legal entities for other purposes, usually business-related. Most such loans are considered to be less reliable and homogeneous than loans taken for the purpose of acquiring or improving an owner-occupied residence. (It is possible to use such loans as collateral, but only on a more conservative basis.)

On the other hand, there is no restriction on what a lender does with the funds they receive through refinance. It is commonly noted in Malaysia, for example, that the banks use their residential mortgage loans as good collateral at the liquidity facility, Cagamas, in order to raise medium-term funds to finance commercial or industrial lending. (Recently, Cagamas has started a formal program for the refinance of commercial and industrial loans directly.)

In addition to determining basic financial viability and various operational issues, there are significant issues related to ownership and governance that would need to be resolved before a LF could be set up. There is no set formula for doing so, but the most common practice is to make them a public-private partnership. The Malaysian LF, Cagamas, has a particularly interesting arrangement, whereby the private sector (mostly the banks) has the majority share ownership but the Central Bank has the prerogative of Chairing the Board and appointing the senior managers. (The Jordan Mortgage Refinance Com-

[72] Viability at that time will also depend on whether the spread of bank deposit rates over state debt yields has narrowed, due to higher trust in the banking sector.

pany has followed a similar pattern.) This has given Cagamas the full benefit of an implicit state guarantee while preventing it from being turned to purely political purposes.

It is premature to guess as to what structure might work best in Armenia, just as it is too early to say when and if such an institution will be needed or even viable.

9. LEGAL COMPONENT OF THE FEASIBILITY STUDY

The overall purpose of the legal component of the Feasibility Study is to assess the existing legal framework for mortgage finance in Armenia, identify gaps and weaknesses in the laws, and advise the Government of Armenia on areas where improvements or additions are needed, both in primary market laws and in the legal framework necessary for development of a secondary market for mortgage funding. All of these issues are dealt with comprehensively in a separate report, *Legal Report and Advice to Counterparts (September 2005),* prepared by the legal experts on the Feasibility Study team. This section is an overview of that report's findings and recommendations.

9.A The Current Legal Framework and Proposed Amendments for the Primary Market

As noted in the KfW Pre-feasibility Study Report, the legal framework for the primary mortgage market is reasonably strong, particularly as compared to other transition countries in the region. The basic enabling laws are in place and adequately developed to support a robust primary market. These laws govern the establishment and registration of title, mortgages and other interests in immovable property; the conduct of legally transparent and sustainable transactions in real estate, including sales and other transfers; the use of immovable property as collateral for a loan; and the ability of a lender to enforce its rights under the mortgage contract, including the right to seize and sell collateral in the event of loan default without undergoing court procedures.

A clear demonstration of confidence in the basic legal framework is the common practice of Armenian bankers to rely exclusively on a security interest in the subject property as collateral for mortgage loans. This is in sharp contract to mortgage lending in many other transition countries, where bankers require one or a combination of additional security for mortgages loans, including multiple third-party guarantees, large deposit accounts, right to automatic garnishment of wages, and bills of exchange.

While the primary market legal framework is adequate, it could certainly be improved. The Legal Report for the Pre-feasibility Study in 2004 made a number of recommendations for improving the laws governing the primary mortgage market. Almost all the primary market legal problems identified in the 2004 Legal Report have now been addressed through proposed amendments to existing law and a new law on real estate appraisal, prepared by a Working Group on mortgage market laws.[73] The Working Group is led by the Chairman of the State Cadastre upon appointment by the President of Armenia. Other members are representatives of the Central Bank, the Ministry of Finance and Economy, and the Ministry of Justice.

[73] The one exception is the insurance sector, which is to be addressed with comprehensive legislation due later in 2005.

The proposed amendments were delivered to Parliament in mid-May 2005, and were passed on first reading. A second reading of the amendments is expected in the Fall 2005 session of Parliament. Because of this schedule, a high priority during the Feasibility Study mission and for the Legal Report became review of the legislative package and preparation of comments and suggestions for revisions.

Detailed discussion of the proposed amendments and recommendations for further modifications are included in the *Legal Report and Advice to Counterparts*. The most significant issues in the proposed legislation include the following:

- Amendments to limit a debtor's right to out-of-court or court-ordered enforcement of the lender's rights to seize and sell collateral
- Provision of a right of direct sale of the collateral (without auction) by the lender following foreclosure, unless prohibited in the loan contract
- Termination of former statutory use and spousal rights in cases of foreclosure and eviction
- Creation of a right of construction – a new property right that can be mortgaged
- Unification of registration and title to for condominium property (apartment, common property, and land)
- New procedures for registration of unauthorized construction
- New Law on Evaluation of Real Property
- Clarification of mortgage rights over future interests
- New provisions on sale and transfer of state-owned land
- Clarification of definition of immovable property and mortgage

9.B Legal Issues affecting the Feasibility of a Secondary Mortgage Market

In addition to primary market issues, the *Legal Report and Advice to Counterparts* includes a detailed assessment of legal issues affecting the feasibility of secondary mortgage markets in Armenia, and recommendations for preparing for a secondary market. That report covers the following issues:

- Legal choices among bonds, covered bonds or other types of asset-backed securities
- Framework for selling mortgage portfolios and individual loans
- Procedures and costs of registering transfer of mortgage interests or other financial instruments
- Rules for emission and circulation of mortgage-backed bonds
- Legal entities involved in secondary market
- Banking Law issues
- Securities Law issues
- Bankruptcy Law issues, as they affect secured creditors, mortgage creditors and holders of asset backed securities
- Regulated investors (pension funds, insurance companies and others)
- Taxation of entities, financial transactions and financial instruments

The legal experts concluded that Armenia's legal regime could probably support some basic types of secondary mortgage market transactions for the domestic securities market today, but with greater risk and higher transaction cost because of the under-developed legal framework, this would not be advisable. The current framework could not support the more sophisticated and prevalent forms of mortgage securities, such as covered mortgage bonds, and transactions would not meet the standards of international capital markets.

Banks could today issue general obligation bonds secured by pledge of mortgage loans. Lacking the strict statutory requirements found in Europe today, these would not be the equivalent of covered mortgage bonds. These and related problems with other mortgage securities include:

- Pledge of assets. There is no modern law on pledge, or pledge registry, which protects the priorities of secured parties. A number of logistical difficulties would arise in the pledge of assets to a class of secured investors.
- Bondholder rights. There are no clear legal rules on enforcement of the rights of secured bondholder. (It is possible that such issues could be resolved in contractual documents.)
- Registration of immovables. Current rules require registration of a pledge of a mortgage, a cumbersome and costly procedure. There is no operating law or registration system for pledge of contract rights.
- Bankruptcy. There are no special protections for asset-backed securities. While not essential, this departs from the trend in emerging markets.

Two detailed outlines of whole laws to allow for a secondary market are appended to the legal report. These are a proposed Law on Covered Mortgage Bonds, and a proposed Law on Securitization and Asset-Backed Securities. Although the Feasibility Study team believes that it is premature to push forward with a secondary market, it is hoped that the legal report and outlines of new secondary market laws will generate discussion among the Armenian counterparts, and if requested, we will provide a full draft of one or both of the laws.

9.C Assignment or Pledge of Mortgage Credits or Claims

Assignment or pledge of mortgage credits and mortgages is frequently necessary in secondary mortgage market systems. Pledge of credits and mortgages may occur in simple secured mortgage bond transactions in which the credits are pledged for the benefit of bond holders, or under a liquidity facility model where the facility extends loans to banks secured by their loan portfolios rather than purchasing and owning loans. Thus, weakness in the Armenian law on secured transaction may become a factor in development of the refinancing facility under consideration by KfW or in the eventual creation of a liquidity facility.

Armenian laws on assignment and pledge of property are somewhat limited and not adapted to many types of modern financial transactions. While the basic rights are defined and protected, the nuances would cause practical problems for most types of mortgage securities transactions. By no means does the law rise to the level of modern practice as exemplified, for example, by the EBRD's guidelines for emerging markets on secured transactions (movable charges) and creation of pledge registries. There is also no effective registry at this time to perfect pledge of financial assets other than actual securities, or to protect the priorities of secured creditors.

These issues, and recommendations for specific changes in current laws or for adoption of a new law to provide a better system for transferring and assigning mortgage loans and claims, are also discussed in detail in the legal report.[74]

10. PROPOSED PROGRAM TIMELINE

How might the GAF-M program develop over the next several years? The first major benchmark will be the conclusion of the relevant agreement between Germany and Armenia. Our understanding is that the goal is to complete this agreement by 31 December 2005.

This agreement would encompass an initial authorization of 6 million euros in capital for the GAF-M and another 1.5 million euros to fund the consulting services to implement the program and to deliver supporting measures. Presumably, the consulting services would be procured within the first 6 months of 2006, and the project started by 1 July 2006. Under such a scenario, it is optimistic but feasible that the first tranche of refinance be offered by 31 December 2006.

This first tranche is very important. It will involve the setting of certain MQS, the qualification of certain lenders, and the creation of an allocation mechanism, as well as a re-orientation of lenders (and borrowers) toward the use of AMD. Six months is the very least time feasible to organize all of these steps.

The proposal here is that the first tranche include no more than 50% of the first authorization, i.e., 3 million euros. It would be followed up within another 6 months by a second tranche of another 3 million or less. If there is less demand (or take-up of commitments with 6 months), there could be a third tranche out of the first authorization. These funds would probably be offered for 5 years, with the reflows starting in 2012.

By mid-2007, there would be an opportunity to conclude an agreement for a second authorization out of the 2007-2008 funding cycle for an additional amount, perhaps another 6 million euros. These funds would come on stream in late 2007 or early 2008 and be used up by early 2009. By the start of these later tranches, it should be clear whether refinancing for only 3 years is sufficient to support end-loans of 10 years. If so, such shorter cycle funding would permit significant reflows and thus additional tranches as early as 2011.

This timing raises the issue of whether lenders will be willing to keep up offering 10-year loans during the period when there will be no significant additional refinance (probably in the years 2009 and 2010). Our guess is that the banking sector will have evolved by that time, and the lenders become more confident in their mortgage product, that they will be fully prepared to offer 10-year terms after two years of doing so with the support of the GAF-M program. If so, the issue for the GAF-M Supervisory Council will be what directions to take the program with the reflows coming in the next several years.

[74] A better system could be provided through amendments of the Civil Code and the Law on the Cadastre of Movable Property and Registration of the Right of Collateral for Movable Property.

Suggestions for these new directions are contained in Sections 4 and 8 above. Further requirements or targeting can be added to the required terms of the end-loans and/or the refinance could be packaged in a manner similar to secondary market funding. By 2012, when the bulk of the reflows should be appearing, serious consideration can be given to supporting a secondary market operation or simply a nascent mortgage bond market.

The supporting measures would be implemented in 2006-7. The MQS must be settled relatively soon under the consulting agreement, to enable the lenders to adapt their forms and procedures. The training would include explanation of the MQS, as well as the full range of other topics related to mortgage finance, and would start up by the end of 2006, and perhaps carry through 2007. Work with lenders on CSSH would be during the same period.

What are appropriate indicators of the success of the program? For this program, the measures of success are very tangible. If lenders adopt the MQS and accept all of the other terms of the refinance, and draw down the full amounts of the authorizations, the program will have been largely successful. This would imply a high degree of standardization of mortgage lending, an extension of the maturities to 10 years, and the adoption of the AMD as the standard, at least for these longer-term loans.

The goal of promoting lending at lower-income levels will not be specifically pursued initially. Most higher income borrowers will be excluded by a ceiling on loan size, and average loan size can be taken as an indicator of average income levels serve. In later recycling of the funding, specific income targeting can be introduced.

It is possible that such success be achieved in the area of refinance and yet other areas not be so successful. It may be problematic finding a home for the training courses that will be self-sustainable into the future. It may be necessary to compromise on certain MQS initially, and only gradually move toward standards acceptable in the secondary market. It is also possible that lenders will still hesitate to lend for 10 years and push loans in AMD, outside of the support of the refinance program.

With respect to the development of a secondary market, the program can only do so much. It should be counted as a real success if the refinance program is able to evolve its parameters over time such that the viability of secondary market funding is truly tested. In other words, the program would shift to offering funds on terms and conditions similar to those likely on a secondary market. If lenders at that point prefer to rely on the deposit base, then the program has still provided an important service. If the problem is not the demand by lenders, but the continuing weakness of the domestic capital market, there is little the program can do about that.

The main risk to the program are negative shifts in the demand for housing finance due to adverse macro-economic or geo-political shocks. Even so, these will pass eventually, and the program should be able to get back on track (although the momentum created by the supporting measures may have been lost).

Anther significant risk is that the public is highly averse to borrowing in AMD. Unfortunately the recent rapid rise in the AMD relative to the USD has rewarded those (almost all) who have borrowed in USD. Moreover, USD loans may remain cheaper than AMD loans. There is no guarantee that these preferences can be reversed promptly, although there are good reasons to think that they can be. In any case, if these issue turns out to be very problematic, there are alternative evolutionary paths that can be pursued, as suggested in Section 4.

It is highly unlikely that the refinance will not be taken up by the banks, at least on some terms. That is the advantage of being able to set the rate on the funds according to market conditions and the degree to which the funds come with policy “burdens”. At some rate, at least some lenders will be willing to push longer-term loans in AMD with more stringent MQS and so on. The Supervisory Council is expected to be more active than in the GAF-SME program to adjusting the parameters of the program in ways best attuned to market conditions and program goals.

ANNEX 1

Growth Rates of Housing Finance in Central and Eastern Europe

The authors have reasonably consistent data from seven transition countries in Central and Eastern Europe. These data are presented in Table 1. All of those countries show rapid take-offs and continuing growth of residential mortgage lending, but with very different starting dates, depending on the precise local conditions (and data availability). Very importantly, sometimes these growth rates are strongly influenced by factors that may not appear in Armenia, specifically the introduction of deep subsidies to housing finance and the take-over of the banking sector by foreign banks.

Table A1.1: Year-on-Year Growth in Mortgage Stock, as of December 31st

Country	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Armenia[1]								154%	70%
Croatia[2]				4%	12%	54%	60%	60%	23%
Czech Republic[3]		2%	19%	0%	66%	51%	51%	55%	57%
Estonia[4]				23%	41%	40%	44%	45%	38%
Hungary[5,6]					58%	82%	87%	96%	
Latvia[7]					58%	133%	86%	115%	
Poland[8]	76%	78%	64%	96%	63%	47%	42%	48%	
Ukraine[9]							113%	238%	29%
Average				**31%**	**50%**	**68%**	**69%**	**101%**	**43%**

In this regard, the two best comparators are probably Poland and Ukraine. Poland is the only Visegrad country not to introduce deep subsidies to at least portions of the mortgage market, a situation so far also avoided in Armenia. However, the evolution of its mortgage market was influenced by two external factors, the large amount of technical assistance on mortgage lending that its banking sector received in the mid-1990s and the significant role of foreign ownership of banks

1 Pre-feasibility Report, p. 9, CBA estimates and updates

2 OECD 2004 Country Note. Data in 2004 are per 30 June 2004 annualized

3 OECD 2002 Country Note, 2000-2003 based on annual data on website, 2004 based on 6/2004 annualized

4 OECD 2004 Country Note: Estonia, Fourth OECD Workshop on Housing Finance in Transition Economies, 14 – 15 December 2004, page 8

5 OECD 2002 Country Note

6 Duebel, Achim, The Role of Government in Housing Policy Transition Countries, presentation given at Fourth OECD Workshop on Housing Finance in Transition Economies, 14 – 15 December 2004.

7 OECD 2004 Country Note: Latvia, Fourth OECD Workshop on Housing Finance in Transition Economies, 14 – 15 December 2004, page 10.

8 Jacek Łaszek, “Development of the bank housing finance system for individuals in Poland”, paper given at a conference in Budapest, May 2004

9 Ukraine National Mortgage Association, June 2005

played in the early 2000s. The mortgage market in Ukraine, in contrast, has not benefited so far from either extensive TA, foreign ownership, or deep subsidies. Moreover, Ukraine's period of rapid growth did not start until 2002, about the same time as in Armenia. Thus, each case study will yield slightly different information, but the two together will tell a very similar story.

Before examining these specific countries, it is worthwhile thinking out how both supply and demand conditions have interacted to shape the evolution of these mortgage markets.

Soon after the transition started, construction activity collapsed in most countries, as effective demand disappeared now that the full market cost of housing had to be borne by buyers, whose purchasing power was also being depressed by economic declines. At that time, many observers felt that the absence of mortgage finance was a major part of the problem. This led to donor efforts in the Visegrad countries to create mortgage finance systems. The results were of significant interest: households showed little interest in borrowing for housing unless the state subsidized the effective real cost to negative levels or at least lower than the return on savings.[10]

By the mid-1990s, the Visegrad economies were recovering and so were their housing markets. But households had become used to the mode of housing finance normal in developing countries, i.e., paying in cash. This was facilitated by the privatization of much or all of the publicly-owned stock, leaving most households with relatively large amounts of home equity that could be topped up with additional savings to acquire a nicer unit or could be passed on to children or grand-children upon death of the elderly.

What was conspicuously missing was the desire to go beyond the funds at hand and actually borrow at a real cost in order to acquire even more and better housing, with the debt to be paid off over a longer period, usually 10 years or more in the Visegrad countries. Part of this lack of interest was presumably due to the high real cost of credit in some countries, but the evidence from careful perusal of subsidy schemes is that even when the real cost was brought down to levels similar to those in advanced countries (but still positive), there was little interest. This result is contrary to the rational economic model, where at least some use of credit would normally be part of the optimal timing of cash outlays and consumption of housing.

By the late 1990s and early 2000s, four forces seemed to be rapidly changing this situation. First, the commercial banks shifted their focus from corporate lending toward retail lending, usually first in the area of auto loans and then for housing. Second, the credit culture finally arrived in these countries (and the job situation had stabilized), and people had started to consider taking out loans to give an extra boost to their purchasing power in general, including for housing. Third, nominal and real interest rates were falling. Fourth, all of these shifts were given extra impetus in three of the four Visegrad countries by the introduction of more subsidies to mortgage credit.

We are most interested in the first three of these factors, since they are largely exogenous of the policy choices with respect to subsidies. As noted above, the one Visegrad country which did not go deeply into subsidizing housing credit was Poland, and the role of the first three forces was clear there.

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[10] See Diamond, "The Transition in Housing Finance in Central Europe and Russia: 1989-1999," monograph prepared for USAID, Urban Institute, November 1999. For discussions of the evolution of housing finance in all four Visegrad countries.

Two reports prepared by Jacek Laszek of the National Bank of Poland pull together the relevant data, as calculated by the National Bank and his own estimates.[11] As shown in Table 2, he finds that in the period 1994-1997, from 2-4% of sales of existing housing was financed with housing credits. Usage was slowed by very high levels of nominal interest rates (moderated if loans were indexed for inflation or taken in forex), by high margins, and by terms of only 10-15 years. However, even this level was sufficient to give significant impetus to the aggregate stock of loans, which grew from 0.2% of banking assets to 0.7% (over USD 400 million).

Table A1.2: The Relative Size of the Mortgage Market in Poland

MEASURE	**1994**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Share of housing loans in GDP, %	0.1	0.4	0.5	0.9	1.3	1.8	2.6	3.6
Share of housing loans in banking sector assets, %	0.2	0.7	0.9	1.6	2.2	3.0	4.3	6.0
% of outlay on housing construction financed with loans	9.5	8.0	9.0	15.0	16.0	21.0	26.0	36.4
% of turnover on the secondary housing market financed with loans.	2.0	3.8	6.9	9.5	10.2	13.8	-	27.6

Then starting in 1998 and proceeding to 2001, mortgage credit emerged as a significant factor in the secondary housing market, with it financing a share of almost 14% of sales of existing housing in 2001. Rates fell in general as inflation subsided, many additional banks entered the market (often after being sold to foreign banks), and competition intensified. Notably, banks' margins over the Warsaw Interbank Offer Rate (WIBOR) declined from 7-9% in 1996 down to 2-2.5% in 2002, and terms lengthened to 20-25 years.[12]

Since 2001, the mortgage market has become mainstream in Poland, with most housing buyers now seeing credit as a valid way to expand their purchasing power.[13] Almost 28% of the sales volume of existing homes was financed in 2003, helped along by falling interest rates, which reached as low as 3% in forex and 6% in zlotys in 2004. From 1996 to 2003, the share of banking assets in mortgages rose by ten times, to 6.0%, and almost all of this mortgage book was being financed out of bank deposits. (Mortgage bonds are possible, but are not seen as a competitive source of funding.)

A similar pattern is emerging in Ukraine. As of 2002, the economy had been stable and growing for 2 years, and several banks started to take an interest in retail lending. As of January 2002, it is estimated that the total stock of mortgage loans was about UAH 0.35 billion, or only about USD 60 million. By the end of 2004, the stock stood at almost UAH 3.0 billion, for an increase of about 8

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[11] Jacek Łaszek, Budpest paper, May 2004, and "Country Note: Poland", Fourth Workshop on Housing Finance in Transition Countries, OECD, 14 – 15 December 2004.

[12] Łaszek, Budapest paper, p. 2

[13] The shift in attitudes toward use of credit probably followed that classic pattern seen in the adoption of an innovation. This pattern, a S-shaped curve, first slowly rising, then accelerating, and then slowing again once adoption is widespread, was first identified in 1903 by a French sociologist, Gabriel Tarde, and is thoroughly explored in Everett Rogers, *Diffusion of Innovation*, 1983.

times (100% rate of increase annually on average). This rise was associated with a decline in interest rates (from 18% to 12-14% in USD, the most common formulation) and the extension of terms to 10-15 years from 5-7 years.

As in Poland several years earlier, the rise in mortgage lending was really part of a major shift in attitudes to consumer credits by both banks and the public. Retail lending in general went from negligible amounts in 2002 to about one-third of the loan book in early 2005 (Tacis, p. 15).[14] Residential mortgages were only 12% of this burgeoning market, but housing credits were generally seen as a major future growth segment. In 2005, the leading lenders are setting up specialized mortgage marketing centers in Kiev and are also organizing to expand this business to all of the other major cities. Notably, both USAID and EU-TACIS were organizing TA to the sector and EBRD was signing up banks for long-term refinance.

It is interesting to try to put the growth of the mortgage market in Ukraine roughly within the context of the longer history of Poland's market. Consumers in Ukraine seem to have embraced the credit option rapidly, especially in Kiev. (There is no data, but it is commonly noted by real estate brokers that currently more than half of their clients in Kiev use credit.) Mortgage usage has not spread in a significant way into the many significant secondary cities yet but lenders are starting to train staff and organize their marketing campaigns. Most importantly, the banking sector still exhibits relatively high margins (the NBU reports a 7.3% spread between average deposits rates and lending rates, as of April 2005) and it has not experienced any significant degree of foreign acquisition nor consolidation. (Notably, the one Western bank with a major presence, Raiffeissen, has been aggressive in the mortgage market, as has HSBC in Armenia.)

This suggests that Ukraine is about where Poland was in 2000-2001, before the sharp decline in market interest rates and mainstreaming of the use of housing credit. Growth rates in the outstanding stock are still high (at over 100% annualized in the first quarter of 2005), and this measure will soon receive an impetus from greater use in the secondary cities. Residential mortgage credits as a share of banking assets is about 2%, about the same as in Poland in 2000. It could be expected that Ukraine will follow Poland's example and grow this share to 4-6% in the next few years. However, such a further boost to the mortgage market will require the arrival of truly low market rates and longer terms, shifts in turn that depend on political stability, continued economic growth, fiscal restraint, and perhaps the entry of more foreign banks (to narrow margins and add confidence in the banking sector).

[14] EU-TACIS Inception Report. "Strengthening of the Ukrainian Mortgage Structure." Annex 5.2, Component 2.

ANNEX 2

Comparison of Structure and Operations for GAF-SME and GAF-M Programs

Area	SME Operations	Home Mortgage Operations
Borrower	CBA	CBA
Guarantor	GoA through MOFE	GoA through MOFE
Executing agency	German-Armenian Fund (GAF-PMU); GAF is effectively a department of CBA. GAF out-sourced for training and financial management services with the partner banks and credit organizations (PBs)	GAF-PMU; similar arrangement for mortgage lending expected
KfW loan currency	Euro	Euro
Interest paid to KfW	0.75% p.a.	0.75% p.a.
Currency for on-lending to sub-borrowers	AMD	AMD
GAF		
Governance	Supervisory Council of representatives of KfW, CBA, and IPC (contractor engaged for project). Council has the authority to adjust program parameters, e.g., interest rate to PBs.	Supervisory Council: voting members are CBA and KfW. Head of Bankers Association is member. Consider forming an advisory panel, particularly to advise on use of funds (reflows) in later years and training needs.
Operations organization	Small PMU for core functions and CBA[1] contracting (to IPC) for direct activities with partner banks (PBs) such as assessment of banks for participation, training bank staff, performance monitoring. GAF audits loans at PBs annually	Same; viewed has highly effective
GAF fees (taken from the interest paid on refinancing to	0.75% on outstanding loans to PBs. 1.0% on undisbursed balance of loans to PBs	0.75% on outstanding loans. 0.5% penalty for failure to deliver loan within the allowed period after GAF has issued

[1] KfW was authorized by CBA to sign the contract with IPC.

PBs)		a loan commitment (see below)
Bank selection factors	"Hard" in form of bank performance indicators. "Soft factors"--experience in lending to SMEs; willingness and interest in lending to GAF–defined target group and following GAF procedures	Similar; see text
GAF use of reflows from PBs	So far no repayments received. GAF plans to continue to roll over loans outstanding at PBs until the end of the KfW loan period	Banks will repay loans from GAF as they come due. GAF will make allocate funds to PBs through allocation process. Process may change over time, e.g., purchase of mortgage bonds issued by banks.
GAF and PBs		
Parties to the agreement	CBA and PB	CBA and PB
Terms of financial agreement between GAF and PBs	Loan disbursed as advances in four equal installments.[2] Release of installments after the first conditional on use of advanced funds. Initially 3-year and later 5-year agreements. Fixed interest rate loan to PB but rate can vary on each advance.[3] LOC cannot exceed 50% of PB's own capital[4] Banks pay interest on outstanding balances and bullet re-payment of principal Banks can prepay with advance notice and a minimum prepayment of AMD 15 million; no penalty fee	No advances. GAF will finance mortgage loans that have been closed. General loan agreement with each PB, plus simple loan agreement for individual loans or groups of loans. 3-5 year loans anticipated. Banks pay current interest and bullet principal payment at end of loan. Prepayment permitted on a case-by-case basis, based on hardship.
Basis for allocation of funds among partner banks	Initial allocation was the same amount (AMD 300 million) to each bank. The restriction that the total loan from GAF be < 50% bank's capital was not a constraint.	Allocation of loan commitment is either (a) through a "win-dow" where PBs can obtain a commitment for an individual loan or group of loans or (b) through an auction procedure

[2] Process changed fairly early in the program to advance whole loan at once.
[3] Initial interest rate to PBs was 8%. Changed in October 2004 to 6%. Basis for setting rate was related to banks' cost of funds.
[4] Restriction later made flexible among banks. As of June 2004, restriction ranged from 50 to 125% of capital.

	For the second loan, GAF made the allocation on the basis of the own-lending to SMEs done by the banks between the first and second loans. Restrictions with respect to capital were made variable and now range from 50% (Inekobank) to 125% (Anelik Bank)	for blocks of loan commitments. Which is to be determined. Restrictions on concentration of GAF loans in a small number of banks are likely.
Security for sub-loans	In case of PB default on GAF loan, outstanding PB loans are assigned automatically to GAF (Art. 9.1 of sub-loan agreement). Not yet tested.	Initially, probably same as SME. Later, lien on the mortgage loans in favor of GAF to imitate secondary market procedures.
Training for PBs	Initial year seminars for PB loan officers conducted at CBA. Thereafter, seminar repeated each 6 months or so depending on banks' demands. On site QC and mentoring. Have trained 250 loan officers. Only for staff from PBs. No transfer to any education institution for wider use.	Courses in mortgage loan underwriting and servicing will be established at an existing institution. Standards (MQS) taught will be those of the program. Courses are mandatory for home mortgage loan officers from PBs but they are open to staff from all banks. Additional on-the-job mentoring for PB staff. Objective is for these courses to be commercially sustainable
Quality control	IPC provides guidance on loan underwriting for presentation to PB's loan committee. IPC was on loan committee of all banks until May 2004; now only at one bank. GAF conduct annual audit of outstanding loans. Part of CBA on-site reviews of asset quality at all banks.	Post-commitment or post-loan issuance review. Loans failing standards are removed from those financed by GAF. Annual audits by GAF PMU.
Bank use of reflows	PB can re-lend until the end of the loan agreement. GAF policy is to allow each PB used the funds disbursed to them. Prepayment of sub-loan is permitted with certain restrictions.	None.
PBs and end borrowers		
Interest rate to borrowers	Determined by banks based on risk assessment	Based on market factors, including the possibility of having to discount the interest rate to interest borrowers in innovative products.
Maximum loan size	Established in GAF-PB agreement; varies with SME size measured by number of employees	$30,000
Bank lending guidelines	Standards are set through bank staff training by IPC, use of standard forms, and IPC review of loans	Standards set through underwriting and loan servicing procedures manual (MQS), developed by consultant with PB

	Interest rates vary by bank assessment of degree of risk involved. Security: market value of pledged collateral must be at least 100% of loan principal Loan term: 1-60 months; exceptions possible Loan size: maximum depends on size of organization, in terms of number of employees. Repayments: current interest and bullet principal payment	input. Initial standards as part of current project. Minimum 10-year term. Loans in AMD. Life and property insurance required. Possible interest rate re-set at end of GAF loan period to reduce interest rate risk to PBs; regular variable interest rate is also possible.

ANNEX 3

Establishment of Minimum Quality Standards

This Annex is organised in the following way: first, it highlights the rationale of MQS and its importance for primary and secondary markets, followed by a review of minimum standards developed by the European Bank for Reconstruction and Development (EBRD) and the CBA. Second, it outlines the standards currently practised within the Armenian financial community and compares them with international practices, resulting in recommendations. They should be used in the creation of a manual for the Armenian market. Finally, it includes a draft Manual on Minimum Quality Standards developed after discussion with bankers and other counterparts in Armenia.

A3.1 Rationale for the Development of MQS in Armenia

The Armenian government supports the development of fully integrated primary and secondary markets. With the appearance of a secondary market, banks that originate and service mortgage loans can seek refinancing of their mortgage loans portfolios through that market, either directly tapping the capital market or through a working secondary market operator. In either case, the cost of such funds will depend on the quality of the loans being made in the primary market.[1]

The quality of the primary market depends on several elements, but none more so than the quality and consistency of the underwriting standards being used and the servicing being done after origination. When investors are being asked to place their trust in the loans as backing for securities, the minimum standards in these regards become critical.[2] Thus, the main function of Minimum Quality Standards (MQS) lies in the setting of standards in all areas of the mortgage lending process, which comprises loan origination, servicing and risk management.

MQS are standards in underwriting, documentation, administration and data collection. They are aimed at establishing effective and efficient mortgage lending procedures and improving the risk management of mortgage loan portfolios. Standardised processing of mortgage loans facilitates their inclusion in mortgage bond or mortgage backed securities (MBS) issues.

Armenian lenders reported to the team the need for long-term funding to promote longer terms and lower interest rates for mortgage loans. Therefore, the team believes that MQS will be a decisive step to further develop the market in this direction. Moreover, MQS support the work of the supervision of lenders, thereby reducing the overall risk in the economy.

A successful application of MQS in Armenia, however, requires a broad acceptance within the financial community. For that reason, the team organised during its field work a discussion round for all Armenian lenders in order to win their joint support and assistance to draft MQS that take into consideration the Armenian context and allow to deduce the necessary recommendations in order to improve the lending standards applied by the lenders. As a further prerequisite, the team views a good co-ordination and interaction between the supervisory bodies and the lenders crucial to facili-

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[1] Working legislation and a stable banking sector would be a further prerequisite.

[2] See EBRD, Mortgage Loan Minimum Standards Manual, April 2004, page V and Banking Methodology and Analyses Department of CBA, Methodical Guidelines on Mortgage Lending by Banks (Credit Organization), Yerevan 2004, page 3.

tate the introduction of MQS. This process may also lead to amendments in the legislation in the following areas.

The lenders should also stay apprised of changes in the legislative framework for mortgage lending, to assure that advances in creditors' rights adopted in new laws or amendments can be reflected in MQS, particularly those relating to loan documentation and collection procedures. Examples in the new legislation proposed by the Working Group and now under consideration that should be taken into account in MQS include the following:

(1) provisions that clarify title and registration procedures for apartments;
(2) procedures that allow lenders to sell property directly to third parties after foreclosure rather than through auction, but only if the loan documents so state;
(3) procedures for collecting and maintaining a security deposit required of a defaulting borrower who challenges a foreclosure procedure in court; and
(4) MQS for rights of construction taken as collateral for a loan.[3]

A3.2 Comparison of the minimum standards from EBRD and CBA

The EBRD manual forms a part of the mortgage lending agreements between EBRD and banks in central and Eastern Europe (especially in Croatia, Bulgaria, Romania as well as Serbia and Montenegro). It serves as a reference and guidance for senior managers of the lending institutions. Since the EBRD believes that standardisation is the key for secondary market development in this region, it created this manual so that the mortgage loans granted by the banks can be included as cover for mortgage bonds or in mortgage securitizations.[4]

The manual consists of two parts: the first part covers all aspects of the mortgage lending process: underwriting (lending criteria, property evaluation, insurance etc.), documentation (such as business operations, security requirements, management information systems) and credit and risk management standards. The second part provides an overview of the functioning and the prerequisites of primary and secondary mortgage markets. The annex includes a sample application form, general information to be handed out to the customer during the loan application process[5] and a summary overview on European mortgage markets.

The manual is therefore a comprehensive outline that guides the loan officers through the whole mortgage lending process and provides background information so that the individual lending process can be shown from a broader standpoint. For every step of the lending process, it gives recommendations, also explaining them so that the loan officers understand their underlying rationale.

The CBA manual only focuses on the underwriting process. It defines clear criteria under which circumstances the borrower is eligible for a mortgage loan. Criteria encompass the borrower's ability to

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[3] For details on the proposed legislation, see *Legal Report and Advice to Counterparts (July 2005)*, a separate report prepared by the legal experts on the Feasibility Study team.

[4] See N. Kerigan, Update on EBRD's Activities and Implementation of the Minimum Standards Manual, presentation held at SEE Mortgage Finance Working Group Meeting on 22 February 2005 in Sofia.

[5] The manual refers in this regard to a "European Standardized Information Sheet" which is a part of the "Voluntary Code of Conduct on Pre-Contractual Information for Home Loans". For further details, see Charles River Associates, An assessment of the extent of an identified need for simplified, standard financial service products, Brussels, December 2004, page 129 et seq.

repay, recommended insurance and the evaluation of the property. The annex provides a sample application form and a sample appraisal form.

The CBA manual is therefore less comprehensive than the EBRD manual. However, the standards stipulated in the underwriting process do not differ. In comparison to the EBRD manual, the CBA manual does not provide detailed information about the arrears management process or the data processing of mortgage loan and borrower data through appropriate IT systems.

CBA informed the team that the EBRD manual and information provided by Credit Suisse were taken as references to work out the CBA manual. In line with the EBRD manual, it should serve as a guideline for Armenian lenders so that they get familiar with the mortgage lending process. However, CBA does not intend to enforce the lenders to use. According to CBA, HSBC, Armeconombank and Converse Bank have referred to the CBA manual for the design of their lending standards.

A3.3 Results of the Discussion Rounds with Armenian Lenders

During the fieldwork, the team conducted interviews with various Armenian lenders active in mortgage lending to collect information about their lending practices. In order to draw their attention to this topic and to raise the lenders' support, the team organised through the Financial Banking College Foundation two discussion rounds. [6] The first took place on 8 June 2005 with all Armenian banks with the participation of KfW, CBA, MoFE and the Union of Banks of Armenia (UAB).

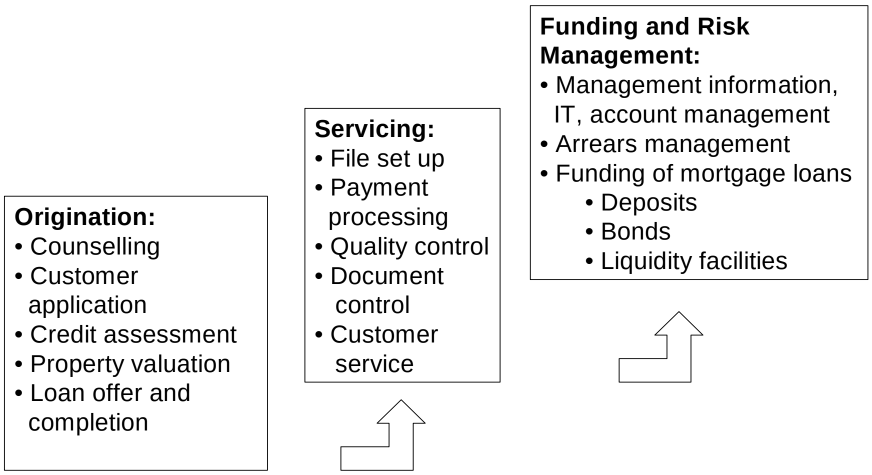
For this discussion round, banks were asked to present their lending practices and to discuss issued around the mortgage lending process (e.g. checking of creditworthiness, data processing, arrears management etc.).

The second discussion round took place on 7 July 2005. The team presented the findings of the Armenian lending practices during the fieldwork and compared them with international standards out of which recommendations were made in order to improve the lending procedures of the lenders. These recommendations were discussed with lenders in order to refine the findings. From these discussions and individual interviews, the team developed an MQS Manual.

The team recommends this Manual be circulated among the banks. In addition, they should be invited for an information session where the manual is explained to them. Ideally, this event leads to the formation of a working group which is in charge of the further development of the MQS manual. The working group should meet at least once a year. Moreover, the team also suggests that the MQS Manual will be part of the training programme. The proposed steps could be part of the consulting portion of the project envisaged by KfW to promote the development of housing finance in the country.

6 Names of the participants are listed in the annex.

Chart A3.1: the value chain of the mortgage lending process



Source: Roy

In the MQS Manual, the team modelled the MQs along the value chain of the mortgage lending process, which is illustrated in Chart A3.1. Typically, a mortgage loan is processed in three steps: origination, servicing and funding and risk management. In every step, a certain set of functions is fulfilled (see enumeration in every box).

The team recommends that the developed standards should be voluntary for the lenders. However, they should be obligatory for those lenders that wish to participate in the KfW's refinancing programme for mortgage loans.

Table A3.1 shows how Armenian lenders process the loans (first column). The second column compares the Armenian standards with international standards in other countries. The third column contains recommendations for improvements of the current lending practices.

Table A3.1: Comparison of Armenian practices and international standards[7]

	Armenian Practices	International standards	Recommendations for improvement
A. Origination			
1. Counselling	Typically, banks inform about conditions of mortgage loan. Some banks	Banks provide general information material (brochures), application form. In	An information leaflet is desirable in order to improve borrower's knowledge of the

	Armenian Practices	International standards	Recommendations for improvement
	have an information leaflet.[8]	Europe, banks distribute special leaflet that contains basic information about the envisaged loan take-up.	whole mortgage loan process and related actions (pledge of property, calculation of required amount of mortgage loan and term etc.).[9] In addition, the application form should encompass a repayment schedule.[10]
2.Customer application			
Documents required	Application form, certificate stating salary, employment contract, statement of appraiser, three-party agreement, information leaflet.	Banks require salary statements, statement of appraiser, information about the property to be pledged (statement of the land registry, photos), loan agreement, the notary agreement to register lien.	No recommendations

[7] Source: interviews with Armenian lenders, round table discussion on 8 June 2005 with Armenian banks on MQS, EBRD Mortgage Loan Minimum Standards Manual, Interview with loan officer of Commerzbank AG and MLP AG, Germany, JSC “Agency for Housing Mortgage Lending”, Mortgage Selling and Servicing Guide, Moscow 1998, Charles River Associates, An assessment of the extent of an identified need for simplified, standard financial service products, Brussels, December 2004, Banking Methodology and Analyses Department of CBA, Methodical Guidelines on Mortgage Lending by Banks (Credit Organisation), Yerevan 2004, Mortgage Credit Foundation, Basic Guidelines for a Eurohypothec, Warsaw, May 2005.

[8] Only HSBC and Emporiki Bank distribute information leaflets.

[9] The information leaflet could provide the following information to the borrower: purposes for which a loan can be used, forms of sureties, an indication of the cost of a typical home loan for a borrower (e.g. insurance cost, legal cost, appraisal cost etc.), different options available for redeeming the credit to the lender (including the number, frequency, amount of redemption payments etc.), how to calculate the appropriate loan amount and redemption payments in relation to income and the project to be financed, a sample repayment schedule, possibilities of early repayments, whether a valuation of the property is necessary and, if so, by whom it has to be carried out.

[10] The repayment schedule would allow the borrower to better gauge the obligations a mortgage loan for him implies. Some banks provide a repayment schedule on their website.

	Armenian Practices	International standards	Recommendations for improvement
Information required in the application form	Name of borrower, date of birth, citizenship, no. of dependants, marital status, passport details, address of borrower (residence and correspondence, contact numbers), type of ownership, educational background, employment details (present position, years with the company, employer with address), previous employer details, other loans and liabilities, salary details, requested loan type.	Name and Address of borrower and co-borrower (if applicable), description of property being mortgaged (including cost of acquisition), conditions of mortgage loan (interest rate, term, amount etc.), calculation of ability to repay, consent of borrower to transfer mortgage to 3rd party and for access to credit bureau's data.	In the application form: data on property to be pledged, employment details of co-borrower (if applicable), calculation of ability to repay, repayment schedule, consent of borrower to transfer mortgage to 3rd party [11]and for access to credit bureau's data (especially in case of ARCA credit bureau).
Required documents from borrower	Copy of passport and social security card, information note from employer confirming borrower's salary and job position, reference on the family members and their incomes, copy of ownership certificate to be pledged, appraisal act of the pledged property, passport copy of the seller (if applicable).	Salary statements of borrower and co-borrower (if applicable), description of property to be pledged, copy of land register, sales contract, copy of building insurance, report of borrower's assets, appraisal report.	No recommendations
2.Credit assessment			
Ability to repay[12]	PTI ratio: < 35 - 40 % OTI ratio: < 50 - 60 %	Banks apply the following ratios: PTI ratio < 40 % and OTI < 45 - 50 %.[14] Banks	Especially if banks consider ARMs, stress tests of ability to repay are recommendable.[15] Ratios should be communi-

	Armenian Practices	International standards	Recommendations for improvement
	or minimum amount for living: ADM 35,000 after deduction of all expenses (including mortgage loan rate)[13] Banks also require information about previous employment of borrower (position, salary, contact details)	also take into consideration payments for life and building insurance In case of ARM, banks stress borrower's ability to repay by increasing interest rate on loan by 3 to 5 percentage points. Typically, borrower's consent to consult credit bureaux is included in the application form.	cated to borrower in order to raise transparency. It would be desirable to avoid the inclusion of hidden incomes or remittance into the calculation of the borrower's ability to repay since lenders face difficulties in tracing them. Even if the borrowers received remittance during the last 12 months, the lender has no guarantee that they will be sent to the borrower in the next 12 months. In case the regular official income does not suffice to honour the debt service, the lender should ask for a higher down payment and/or refer to the borrower's qualification and professional experiences which may serve as an indicator whether the borrower would be always capable of being employed.[16] In addition, banks should also check whether customer meets other regular obligations during the

[11] Lenders reported to the team that they are entitled to transfer the legal claim on the mortgage to a third party without prior consent of the borrower (according to the legislation of the Civil Code).

[12] PTI ratio is the ratio of the mortgage payment to income, as income measured somewhat differently by different lenders. The OTI ratio is the ratio of overall debt payments to the same income.

[13] One bank reported to the team that it introduced a scoring system that is based on income, age, careers and job experience of the borrower.

[14] Some banks also use the net disposable income: all taxes, social insurances, envisaged mortgage payments and/or other regular payments (+ expenses for every child) are deducted from gross income. The remaining balance should be sufficient to cover living expenses. In this regards, banks typically apply standard amounts e.g. a household of 4 person must at least dispose of a minimum income of € 1,250 per month (requirements of Commerzbank AG, Germany).

[15] Currently, banks only provide loans in FRM. Stress test could be also useful for these types of loans when interest rate are expected to rise. This scenario is unlikely for the next years in Armenia. However, it may become relevant in time of strong demand for loans. Most of the banks consider stress test useful as a further check on the borrower's ability to repay.

[16] This approach may also help to reach lower income households who often face unstable income patterns.

[17] Every lender has an individual approach to assess the ability to repay. All lenders confirmed to the team that they face considerable difficulties in assessing the borrower's creditworthiness given the unstable income situation in Armenia and the importance of hidden incomes which are difficult to assess.

	Armenian Practices	International standards	Recommendations for improvement
			last 12 months (electricity bills, rents etc.).
Co-operation with credit bureau	All banks are obliged to send information to credit registry of CBA which also provides information to banks.[18] Some banks also co-operate with ARCA news agency (a private entity).[19]	Banks co-operate with credit bureaux and share all information available.	ARCA credit bureau may deliver further information about borrower's ability to repay.
Appraisal of property	Typically, banks work with independent and certified appraiser. The team did not identify any standard information requirements about the content of the appraisal by the banks.	Banks ask for an independent assessment of property that is being offered as security.[20]	UAB could work out in co-operation with State Committee of the Real Property Cadastre and National Association of Realtors and Appraisers Appraisal standards to be applicable in mortgage lending.[21]
Down-payment	30 – 50 % (LTV ratio: 50 – 70 %)[22]	LTV ratio is based on the lower of market value and purchase price.[23] Minimum down-payment is 30 %.	The team recommends that the minimum down payment should not be lower than 30 % (LTV ratio of 70 %)
Insurance required	Not all banks require life and building insurance.[24] Insurance payments are typically not taken into consideration on	Banks require at least life and building insurance. Some banks also require mortgage payment protection insurance	Life and building insurance should be regarded as valuable protection for customers, lenders (and investors in mortgage

	Armenian Practices	International standards	Recommendations for improvement
	calculation of creditworthiness.[25]	in case borrower becomes unemployed.	bonds/MBS). Although the insurance market is still in its infancy, the team recommends banks to require from their customer life and building insurance.[26]
3. Loan offer and completion			
Type of loans offered	Most of banks active in mortgage lending offer home improvement loans and home purchase loans.[27]	Banks offer home improvement loans, home purchase loans and home construction loans.[28]	No recommendations
Content of loan agreement	Name of parties (buyer, bank), description and legal status of pledged property, sum and term of the loan, amount to be pledged in the collateral agreement, evaluation of pledged property, price and procedure	Loan agreement is only concluded between bank and borrower, which contains same information as provided in the application form. There is special notarised contract between buyer (borrower) and seller. Registering of mort-	Since all banks stick to the contract structure, it appears a good instrument to regulate the relationship between lender and borrower and to ensure the registration of the mortgage.

18 All loans exceeding USD 3,000 and overdue loans have to be reported to the Credit registry. Information about overdue loans will be passed to other banks within 3 days with which the customer has a customer relationship.

19 ARCA also register information about unpaid telephone bills, electricity bills etc.

20 This assessment typically contains the following information: Address, description of property, estimation of age, dimensions/floor area, provided services (e.g. gas, water, electricity), market value, purchase price, repairs identified, reinstatement/replacement cost, recommendations.

21 The team recommends that such a working group should check whether the expected law on property appraisal provides the necessary information the lender require for the assessment of the value of the property to be pledged.

22 Some banks require a higher down-payment for loans outside Yerevan.

23 Especially in Germany, the LTV ratio is always based on the appraised value of the property which is typically 5 – 10 % lower than the market value. Out of this appraised value, the maximum loan amount does not exceed 60 %. As a result, the down-payment requirement will be higher (up to 40 %).

24 In order to compensate for lacking insurances (i.e. higher risk for the bank), banks charge a higher interest rate on the mortgage loan. In these cases, interest rate can rise up to 17 or 18 % p.a.

25 Those banks which require building and life insurance reported to the team that premium payments account for about 1.3 % of the loan amount.

26 This requirement could help to induce further development of insurance market (including the appropriate regulation and supervision). As soon as securitisation of mortgage loans is possible, investors are likely to ask for insurance.

27 Some of the banks consider home improvements loans consumer loans. However, they report to the team that they require a mortgage as a security.

28 Banks reported to the team that poor legal framework constitutes an obstacle to an expansion into this loan type.

	Armenian Practices	International standards	Recommendations for improvement
	of payment (repayment schedule), legal basis of contract, other provisions. In order to register the collateral, banks refer to a three-party contract	gage deed is done in separate notary contract. Notary administers loan amount in special account until Registration is complete.	
B. Servicing			
1. File set-up			
Administration of mortgage loans	Most of the banks have special software for processing of mortgage loans. Typically, software is not capable of showing maturity profiles, geographical distribution or arrears profile etc. Only pure storage of mortgage loan related data	Banks utilize comprehensive mortgage accounting systems which allow for quick processing of data, reporting according to various criteria and monitoring of existing mortgage loan contracts	The team recommends an overall improvement in the software equipment. This work will receive particular attention as soon as banks start to securitize their mortgage loan portfolios in order to meet investors' information requirements.
2. Payment processing	There are three forms of repayment: direct debit, cheques or in cash	Most banks prefer direct debiting. Payment in cheques is also common (mainly in the U.S.)	Direct debiting is the quickest and cheapest form to process loan repayments as well as to identify delinquent borrowers.
Pre-payment penalties	Most of the banks do not charge penalties. However, some banks do.[29]	There are countries with high pre-payment cultures (like U.S., Denmark) and others which charge considerable penalties (like Germany)	No recommendations
3. Quality control			
Review of borrowers creditworthiness	Some banks do regular reviews (once a year) with offsite control. Others only do it if the customer is in arrears	Typically, banks review mortgage loans once a year.	The team recommends a regular review. Especially in case of securitisation, it may become a requirement of investors.

[29] Penalties can amount up to 2 % of the outstanding loan amount. Most banks require a notice period of about one month before pre-payment can effectuated.

	Armenian Practices	International standards	Recommendations for improvement
Review of property value	It is usually not done.	Review depends on property. It is of particular importance for home construction loans	??? Especially in case of home construction loans, banks should conduct a review of the property (including on-site visit).
C. Risk management and funding			
1. Credit policy	Some banks have introduced standards and summarised them in a manual. Most common criteria is a maximum loan amount; LTV ratios and affordability ratios.	Banks adopt specific criteria and procedures for mortgage loans, which are laid down in a manual.[30]	A clear credit policy improves the transparency and consistency of the mortgage lending process, thus facilitating issues of mortgage bonds/MBS
2. Funding management	Currently making fixed-rate USD loans based on short-term USD term deposits. There was no evident analysis of overall asset-liability matches, especially if market interest rates rose.	Banks are required to perform extensive ALM and Value-at-Risk (VAR) analysis to assess overall portfolio risks.	Good funding management should be a part of envisaged training programme for lenders. .
3. Account management			
Standardised forms for mortgage loans	Banks active in mortgage lending have standardised forms	Banks active in mortgage lending have standardised forms	No recommendations
Reporting standards	They have not been yet developed. Most of the banks have strong formalised decision procedures on mortgage loans.[31]	Software allows banks to introduce various reporting tool (e.g. mortgage loans split by products, growth profile, application pipeline, ma-	They will be required in case of further expansion of the mortgage lending business and securitisation.

[30] This manual regulates at least the types of loans to be offered, product type (annuity mortgage, repayment mortgage etc.), loan assessment standards (LTV, ability to repay etc.), terms and conditions for loans (e.g. maximum age of borrower, minimum and maximum loan terms and amounts etc.), property evaluation standards, approach to credit risk management (e.g. reporting standards, file set-up, document control etc.), arrears management policy, reference to environmental guidelines/corporate governance guidelines.

[31] Typically, every loan is discussed in a credit committee after the property and the personal creditworthiness of the borrowers is verified.

	Armenian Practices	International standards	Recommendations for improvement
		turity and arrears profile, historic data retention, profitability etc.).	
Monitoring of mortgage loan accounts	Typically, banks have loan tracking systems. Banks do not seem to check payments to insurances companies or other obligations related to mortgage lending process	An efficient monitoring of accounts includes checking whether approvals are converted into draw downs, correct registering of mortgage, inflow of repayments and premiums of life and building insurances etc.	The team recommends that banks also check inflow of insurance payments and other payments related to the mortgage lending process.
3. Arrears management	Most of the banks have not introduced specific rules how to tackle customers in arrears.	Arrears management policy focuses on well-trained team familiar with the relevant laws, clearly documented process, an aggressive approach to arrears and follow-up procedures	Recommendable practice: Software programme reports missing payment to loan officer, reminder will be sent out after 3 days, loan officer contacts customer to explore reasons for non-payment; if necessary, loan officer takes remedial actions (e.g. amendment of repayment rate, grace period etc.). If these measures to not work, foreclosure process starts.[32]

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According to Table A3.1, banks that have become active in mortgage lending have introduced some standards, albeit to different levels. Differences to the common practices are described below:

- Origination

Most of the banks conduct interviews with potential borrowers, which serve as a pre-screening. Typically, the loan officers provide the customers with the forms to be filled out and inform them

[32] The team recommends that foreclosures should be the action of last resort. Even in developed countries, it is a costly and time-consuming process in which banks often fail to recover the full loan amount. Typically, delinquent loans are processed in a separate department.

about the prerequisites for underwriting and the conditions of the mortgage loans. Typically loans request are processed in the credit department.[33]

Information requirements do not differ to a large extent. All banks ask for in-depth information about the employment of the borrower (current and previous employers). Seldom do banks require in the application forms detailed information about any co-borrowers or information about the property to be pledged.

When banks check the ability to repay, they typically focus on the proven income of the borrower, thereby only relying on the documented income (e.g. in salary reports of the employer). Banks thoroughly check the employment details of the borrowers.[34]

However, some banks also take into full or partial consideration remittances and regular but unreported income, provided that the borrower is capable of proving the regularity of these payments. This seems to be an area of product differentiation, whereby banks cater to different clientele, and the riskier standards are associated with loans being made at higher rates. At this stage in the development of the Armenian economy and the housing finance sector, it seems premature to unduly restrict variation in this sort of treatment.

Typically, an independent, but certified appraiser provides property evaluation. It seems that the banks have not implemented reporting standards for the appraiser. Some banks do the appraisals with their own staff. However, every bank insists on a visit of the property to be pledged. LTV ratios vary from 30 – 70 %. Often, banks have a maximum loan limit (USD 20,000 – 250,000).

The standard form to register the mortgage in the land registry is the three-party contract. For the loan agreement, banks conclude a different agreement with the borrower. Some banks, especially in the case of home improvement loans disburse the loan amount in several tranches.

- Servicing

Typically, loans are processed with software (LSOFT, a variant of the Armenian banking [?] software system). It appears to the team that this software is a simple loan tracking system. However, it contains no functions for a sophisticated processing of the mortgage loan data (geographical distribution, maturity profiles etc.).

In addition, the monitoring seems to be limited to regular repayments. Most of the banks have so far done mortgage lending without regular reviews (of the borrower's ability to repay or the value of the pledged property).[35]

[33] The credit department manages both mortgage loans and consumer loans. There are not separate departments for mortgage loans.

[34] Most banks noted that the checking of the income appears as one of the most challenging tasks for the banks since many clients provide incomplete or false information (or documents). While foreclosure procedures have been substantially reformed in Armenia, they are still largely untested because very few recent loans have gone into default. Banks anticipate that foreclosure could still be an uncertain, lengthy and costly process, so creditworthiness largely on the basis of the cash flow of the borrower rather than the value of the collateral.

[35] Some banks report that they undertake occasional surprise visits. Moreover, they do not allow for major changes of the pledged apartment.

Banks have been unsuccessful in introducing pre-payment penalties.[36] However, a few still apply them. So far, with banks financing loans out of deposits, the lack of prepayment penalties is not a significant problem. Most of the banks have introduced notice periods (e.g. one month) in the case of a pre-payment by the borrower.

- Risk management and funding.

Some banks have laid down their mortgage lending practices in a manual. These manuals contain precise information about the approach how to proceed with a mortgage loan application. Other banks only introduced some vague guidelines or solely rely on the skills of their loan officers.

The team recognises that most of the banks have not specified clear rules how to tackle borrowers in arrears. Some banks state that they have not yet experienced late payments.[37] Those banks that dispose of guidelines set a deadline for the borrower in arrears (ranging from 7 to 10 days) and visit the client at his/her home. If the client fails to pay, a second deadline will be given to the customer (often 30 days). After this period, the banks will start the foreclosure process.[38] In order to avoid lengthy foreclosure processes, some banks rule in the three-party loan contract that they are entitled to organise the sale of the pledged property in case borrowers fail to meet her/his obligation.

A3.4 Conclusions and recommendations

The desire to create minimum standards in mortgage lending is also of concern in the European Union to stimulate cross-border lending and securitisation. Especially, the different national mortgage systems provide an obstacle to this goal. [39]

In Armenia, the application of certain standards in mortgage lending appears to the team not to be a new issue for banks and credit organisations. According to UAB, this topic was discussed in one of UAB's committee meetings. However, concrete actions have not been taken yet in order to establish joint MQS applicable to all banks.

The team recognises that banks active in mortgage lending have introduced certain standards. However, they differ from bank to bank. Similarities are summarised in table 1. These include: banks use application forms; they calculate the ability to repay and require collateral; an appraisal is conducted; contractual relations between bank and borrower (and seller) are regulated in a three-party contract; and banks process their loans with a software programme (which is a mere tracking system but not a reporting system).

Banks reported to the team that one hurdle to an expansion of housing finance is the lack of long-term funding. Many banks and the CBA, therefore, support the use of mortgage-related securities in order to provide long-term funds obtained from capital markets. In this context, the team considers MQS an important step to achieve this goal.

[36] See R. Struyk et al., Pre-Feasibility Study of the Housing Finance Market in Armenia, October 2004, page IV.

[37] The team believes that some banks rely on the existing culture in Armenia in favour of paying one's debt, stemming in part from the strong family bonds. One bank reported to the team that its borrowers show up when they face difficulties. A further reason is that many banks have only recently started entering into mortgage lending. Therefore, experience with default and foreclosure on such loans is be limited.

[38] Some banks process these loans in special department (for delinquent loans).

[39] See Mortgage Credit Foundation, Basic Guidelines for a Eurohypothec, Warsaw, May 2005, page 11.

In order to develop Armenian MQS the team gives the following recommendations. They are structured along the value chain of the mortgage lending process:

1. Origination

The main objective of the underwriting process is to identify the right clients that are qualified as eligible borrowers and provide the clients with the relevant information related to the mortgage loan process. The latter becomes apparent in the advice given by the loan officers and the application form and other documents handed out to the borrower.

The former ensures that the borrower is capable of making regular and timely payments. The stability of the borrower's employment at the time of the loan application and in the future is therefore crucial to the bank. The team recommends that the borrower should prove an uninterrupted record for a certain period (e.g. two years).[40] In this regard a thorough analysis of the borrower's assets is also recommendable. For example, if a substantial deposit has been made in the last two months prior to the loan application, this may indicate that the funds are borrowings.

The property appraisal should also encompass an analysis of the neighbourhood i.e. access to public transport, distance to facilities such as kindergarten, schools, work place, hospital etc. as well as prospects of price developments in the district of the property to be pledged.[41] A further requirement could be minimum standards for health, safety and supply of utilities to the property in question.

The thorough assessment of the borrower's employment situation shows that the property is regarded more as a fall back position. Banks concentrate more on the borrower's ability to repay, an attitude that is very appropriate at an early stage in the development of housing finance. As soon as the market further develops, a refinement of the MQS on the ability to repay is desirable. This work should also involve standards on the treatment of income source beyond the regular and official salary.

2. Servicing

The main goal of servicing is to secure an efficient management and monitoring of the mortgage loan account operation and the relationship from draw down to redemption of the mortgage loan. It also serves to produce a quick access to information about the individual mortgage loan and the whole mortgage loan portfolio. A highly automated processing systems will lead to lower cost and a better tracking of missing payments and documents. In this regard the quality control of the documents help to verify compliance with investors' information requirements (and to avoid possible repurchases of non-complying mortgage loans). Finally, servicing focuses on an improvement of customer service to handle requests and maintain customer satisfaction and retention.[42]

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[40] Because of the social-economic changes in Armenia during the last years, borrowers may face difficulties showing a stable employment record. As a consequence, banks should evaluate the borrower's employment history to determine the probability of continuance of employment and ability to find a new job without loss of income. Many Armenian lenders do require information about the current and the previous job positions of the borrower. For self-employed people, a minimum of 18 to 24 months of self-employment in the same business is considered a good indicator for viability of the business.

[41] An adequate measure may be sales prices and rents of comparable properties within this district.

[42] See M. Lea, Loan Administration/Servicing Overview, presentation given at Wharton International Housing Finance Programme, Philadelphia, June 2005.

The team believes that the main task to Armenian lenders is to invest in software programmes in order to improve the servicing quality of their mortgage loan portfolios.

3. Risk management and funding

The reason to include this function is to assist lenders in proving that capital and shareholder funds are being prudently managed and that appropriate risk management controls are in place, in the sense that mortgage loans are underwritten in concordance with clearly defined standards, arrears management is appropriate, and that overall portfolio funding risks are being monitored and mortgage designs and pricing reflect these risks. The team recommends that the banks should be required to perform extensive ALM and Value-at-Risk analysis to assess overall portfolio risks.

A manual that defines the credit policy in mortgage lending is considered a tool to facilitate the taking of acceptable risk by setting parameters within a lender structures, approves and manages credit facilities and credit relationships. It does not only give clear guidance and direction to staff but also demonstrates to potential investors and rating agencies the type and style of risk management in place.[43]

In this context, the team recommends regular review of the credit policy so that amendments are taken into consideration to adapt to changing market conditions.

43 They will require detailed reports on the lenders mortgage portfolio in order to buy/rate mortgage bonds or MBS.

A Proposed Manual on Minimum Quality Standards in Mortgage Lending for Armenia

The Armenian government supports the development of fully integrated primary and secondary markets. With the appearance of a secondary market, banks that originate and service mortgage loans can seek refinancing of their mortgage loan portfolios through that market, either directly tapping the capital market or through a working secondary market operator. In either case, one factor in determining the cost of such funds will be the quality of the loans being made in the primary market.
The quality of the primary market depends on several elements, but none more so than the quality and consistency of the mortgage loan underwriting standards and the servicing after origination. When investors are being asked to place their trust in the loans as backing for securities, the minimum standards in these regards become critical. Thus, the main function of Minimum Quality Standards in mortgage lending (MQS) lies in setting standards in all areas of the mortgage lending process, which comprises loan origination, servicing and risk management.

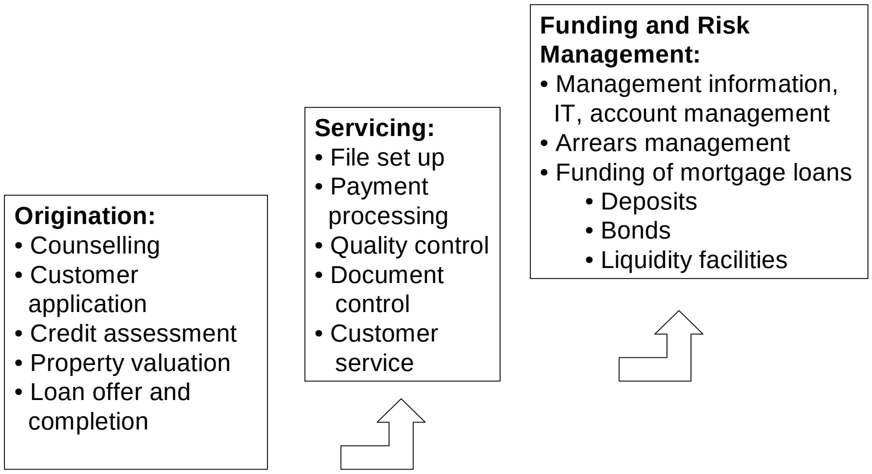
MQS include standards in underwriting, documentation, administration and data collection. They are aimed at establishing effective and efficient mortgage lending procedures and improving the risk management of mortgage loan portfolios. Standardized processing of mortgage loans facilitates their inclusion in mortgage bond or mortgage backed securities (MBS) issues.

This Manual was developed jointly with Armenian lenders. In two discussion rounds organized through the Financial Banking College Foundation in June and July 2005, the team discussed with the lenders and CBA current lending practices and international standards. These discussions formed the basis for the Armenian MQS Manual.

Introduction: How the MQS Manual Is Organized

Typically, a mortgage loan is processed in three steps: origination, servicing and funding and risk management. These steps represent the value chain of the mortgage lending process. The Manual is modelled along this process, as illustrated in Chart A3.1:

Chart A3.1: the value chain of the mortgage lending process



Source: Roy

The origination process encompasses the first contact with the borrower as well as further steps to reach the loan agreement. During this period, the bank gathers as much information as possible about the financial situation of the borrower and the value of the property to be offered as security. The results of this assessment are laid down in the loan application. It is the basis for the final decision on the borrower's request for a mortgage loan.

The servicing process is aimed at organizing efficient documentation and processing of the mortgage loan data (information provided by borrower, the appraiser, etc.), thus allowing for adequate quality control. Furthermore, it facilitates the monitoring process. An additional goal of the servicing process is to provide good service to the customer. The quality of the servicing mainly depends on the quality of the lender's IT program.

The risk management and funding process consists of two elements: first, it comprises the management of the mortgage loan portfolios in a way that related risks are minimized (e.g. concentration risk, interest rate risk, liquidity risk, etc.). Second, the funding should correspond to the outstanding loan portfolios in terms of maturities, spreads, etc. (within the context of the overall portfolio of the lender).

Following the mortgage lending process, the Manual is organized in the following way: the first section defines the necessary steps during the origination process (as illustrated in chart 1). The second section lays down the procedures and processes during the servicing process. The last section explains the necessary steps for adequate risk management and funding of the mortgage loans.

The MQS Manual will be part of the mortgage loan programme of KfW. However, It is recommended that this Manual be applied by Armenian lenders not only with respect to mortgage loans financed under the KfW mortgage loan refinancing facility but also to all other mortgage loans. In addition, this Manual is not intended to be definitive; no doubt there will be further improvements to mortgage lending practices as lenders further develop this business.

The Origination Process

The main objectives of the underwriting process are to identify the degree of creditworthiness of the applicants and to provide the clients with the relevant information related to the mortgage loan process. The latter becomes apparent in the advice given by the loan officers and in the application form and other documents provided to borrower. The former ensures that the borrower is capable of making regular and timely payments. In this regard, the stability of the borrower's employment (including regular income) is one of many issues which lenders shall verify at the time of the loan application.

Counseling

The initial stages of the loan application process and first contact with the potential borrower are critical to assisting the bank in making a decision to grant a loan with an acceptable level of risk for the bank. The first contact will usually be made in person at the bank by the borrower.

During the initial interview the objective shall be for the bank officer to give the potential borrower information on the bank's loan products, lending criteria, loan granting and loan servicing procedures. The bank officer shall also obtain basic information on the borrower's financial condition and personal circumstances so that obviously ineligible customers can be screened out at this initial stage.

In this regard, it is desirable to provide an information leaflet to the borrower in order to improve the borrower's knowledge of the whole mortgage loan process and related actions (pledge of property, calculation of required amount of mortgage loan and term, obligations of the borrower and lender, etc.).
The information leaflet should provide the following information to the borrower:

- Purposes for which a loan can be used,
- Forms of collateral and sureties,
- An indication of the cost of a typical home loan for a borrower (e.g., insurance cost, legal cost, appraisal cost etc.),
- Different options available for redeeming the credit to the lender (including the number, frequency, amount of redemption payments, etc.),
- How to calculate the appropriate loan amount and redemption payments in relation to income and the project to be financed,
- A sample repayment schedule, possibilities of early repayments, whether a valuation of the property is necessary and, if so, by whom it has to be carried out.

The customer must be given information regarding the bank's processes and requirements, which shall include:

1. Consumer confidence requirement, that is the calculation that defines the payment-to-income ratio
2. Collateral requirements and maximum loan-to-value ratio
3. Documents required from the borrower and an indication of how the bank will use the documents and information contained therein
4. Procedures for concluding the loan and mortgage agreements, together with their terms and conditions
5. Requirement to appraise the collateral and assess its condition and legal status

6. An initial indication of the maximum amount of loan that may be offered, together with an indication of the amount of the loan repayments and interest payments (repayment schedule).[44]
7. An estimate of the personal financial contribution to be made by the borrower from their own resources – balance of the purchase price, all fees, taxes, etc.

During the interview, the loan officer shall collect more detailed information on the customer by using a standard loan application form. The borrower shall be advised that the collection of this data and the initial calculations of the loan amount and repayments are for information purposes only at this stage and do not commit the bank to granting a loan nor the borrower to accepting one.

Customer Application

This Manual identifies the minimum requirements in terms of the details of the applicants, and the financial and other information required and the documentation to be provided to the lender to support the loan application. The lender can add additional requirements to meet its operating regulations.

Documents Required from the Borrower

The borrower should present the following documents to the lender during the mortgage loan application process:

	Documents required
1. Details on the applicant	
Applicant's identity	• Passport to be checked for authenticity against the best available information • Tax payer identification reference number • Marriage certificate, if any • Birth certificate[s] for child/children, if any • Statement on number of dependants which live together with applicant
Income details	*If employed:* • Certificate of income reference from primary employer detailing actual income over last 12 months and confirming income tax paid • Employment details (present position, years with the company) and previous employment details (employer, position held, years with the company) • Evidence of any secondary income that is to be taken into account (ideally together with proof that this has been properly declared for tax purposes) • Income reference for spouse's income (if applicable) • Employment details of co-borrower (if applicable) *If self-employed:* • Tax payer ID code registration certificate • Private entrepreneur state registration certificate

[44] The repayment schedule would allow the borrower to better gauge the obligations a mortgage loan implies specifically for him. A repayment schedule on the lenders' website may allow the customer to make his own calculations.

	• Business authorization documents • Financial accounts for past 3 years verified by tax authorities • Income and expenses records for last 6 months • Tax statements for past 3 years • Bank references • Business plan for current and next 3 financial years (if not existent – what does this mean?)
Details on credit history and relationship(s) with other lender(s)/bank(s)	*Previous credit history:* • Details, including loan and collateral agreements, of any credit transactions over last three years (as market develops, increase this to five years) • Confirmation that any existing loan agreements are currently up to date • Proof that communal services payments are paid in full (e.g. electricity, telephone bills etc.) • Proof of rent payments, if applicable, for last 12 months *Existing relationship with other lender(s)*: • Details and turnover of any existing accounts (of all types), for example average monthly balance, average monthly credits and debits • Information about assets in other banks (e.g., securities, savings, etc.)

2. Property documents	*Originals or notarized copies of title documents relating to the property to be mortgaged*.
	If title already registered in name of borrower:
	• Extract from the land register certifying ownership of the borrower; and
	• Technical certificate from the land register – This should set out the specifications and drawings of the property; and
	• Title document,[45] being *inter alia* one of:
	    • Certificate of right of inheritance, issued by public notary
	    • Certificate of acquisition of the property by public sale, issued by private & public notary
	    • Sale-purchase or other agreements on alienation of the property
	• Photos of the property
	If title not currently registered in name of borrower:
	• Sale-purchase, investment or other agreements on acquisition of the relevant property.
	• To register the lien, the three-party agreement applies

[45] The above list of documents certifying title to immovable property shall at all times comply with the title certification requirements of Armenian law in force now and as amended from time to time.

3. Others	• Consent of borrower for access to credit bureau data (especially in case of ARCA credit bureau). This clause should be incorporated into the application form. • Information about other mandatory expenses, e.g., alimony or other support or maintenance costs.

Information Required in the Application Form

Lender should require the borrower to provide the following information in the application form:

	Information provided by the borrower
1. Details on applicant	• Name and Address of borrower and co-borrower (if applicable), marital status, name of dependants in the property of the borrower • Employment details (position, name and adress of employer)
2. Details on property to be pledged	Description of property being mortgaged: • Address • Type of property (e.g. apartment, single family house, etc.) • Year of construction • Information about size and living space • Cost of acquisition (if applicable): sale price, other cost related to purchase (e.g. property tax, notary cost, etc.)
3. Details on financing	• Information about mortgage loan (type, purpose of loan, term, interest rate, redemption rate, number of redemption instalments) • Breakdown of down-payment and necessary loan amount to realise purchase or modernisation/renovation measure • Calculation of affordability to repay. It should also include regular payments related to the property and the mortgage loan (e.g. taxes, insurance, electricity and water charges etc.) • List of borrower's total assets and liabilities (excluding the current mortgage loan application)
4. Other information provided in the application form	• The lender should provide the borrower with a repayment schedule

	• Information about the mortgage loan (description of product, interest rate basis, terms, loan repayment basis, interest calculation basis, loan repayment basis) • Other information about nonrecurring cost (e.g. notary fees, bank fees such as up-front fees) and recurring cost (e.g. building insurance), pre-payment (cost and procedure)

Credit Assessment

The lender shall have its own methodology for calculating the borrower's ability to repay and shall continue to use this methodology but include the additional criteria set out below:

1. The ratio of the loan repayment to the available income (as calculated by the lender) (PTI) shall not exceed 40 %. This ratio specifies the maximum amount of net after tax monthly income available to meet mortgage repayment. If there are joint applicants, the combined income is included.[46]
2. The ratio of the loan repayment plus all other require regular debt repayments to the available income (OTI) shall not exceed 50 %.[47]
3. The minimum down payment shall not be lower than 30 %. This figure results in a maximum LTV ratio of 70 %.

Banks should also take into consideration payments for life and building insurance when calculating PTI and OTI ratio. In addition, banks should check whether the customer has met his regular obligations during the last 12 months (electricity bills, rents etc.).

It is desirable (but not mandatory) to avoid the inclusion of hidden incomes or remittances into the calculation of the borrower's ability to repay since lenders face difficulties in tracing these kinds of income. Even if the borrowers received regular remittances during the last 12 months, the lender has no guarantee that they will continue be sent to the borrower for the next 12 months. In cases the regular official income does not suffice to meet the debt service requirements, the lender should ask for a higher down payment and/or refer to the borrower's employment qualifications and professional experience indicators of whether the borrower is likely to be steadily employed, thus being able to repay the loan on schedule.[48]

Furthermore, banks should thoroughly analyze the borrower's assets (e.g., other property, savings in other banks, etc.). For example, if a substantial deposit has been made in the last two months prior to the loan application, this may indicate that the funds have been borrowed.

All lenders are obliged to send information to the credit registry of CBA, which also provides information to the lenders. Lenders may also refer to the ARCA credit bureau which may deliver further

[46] The PTI ratio is calculated in the following way: the expected monthly redemption installment (MRI) is divided by the net available income (NAI) of the borrower or combined net income in case of joint applicants (PTI = (MRI/NAI)*100). NAI is the gross income minus all taxes and social insurances.

[47] The OTI ratio is calculated in the following way: total monthly debt repayments - TDR (including the expected monthly redemption installment) is divided by the net available income of the borrower or combined net income in case of joint applicants (OTI = (TDR/NAI)*100).

[48] For self-employed people, a minimum of 18 to 24 months of self-employment in the same business is considered a good indicator for viability of the business.

information about borrower's ability to repay since it collects information about unpaid telephone bills, electricity bills, and other sources.

Property Valuation

The following guidelines identify the minimum requirements in terms of general mortgage and collateral requirements. The bank can add additional requirements to meet its operating regulations:

The property offered by the borrower as security for the mortgage loan shall meet the following requirements:

1. The property shall be unencumbered and free from liabilities. This applies to the property being mortgaged and to any other property being offered as additional collateral either by the borrower or any guarantor. Thus, it should not be subject to other contractual obligations of the borrower, pledges or legal claims nor outstanding possession and sale procedures. There should be no restrictions on the borrower's freedom to alienate the mortgaged property or restrictions on the resale of the property.

2. If the property is a residential house (not a flat), the mortgage should include the parcel of land on which the property is situated. If this is not the case, the land must become property of the mortgagor on completion of purchase of property. The land included should be sufficient to allow effective use of the building for its intended purpose.

3. If the property is jointly owned, covenants of owners other than borrower must be obtained and a notarized consent of the owners (to pledge the property to the lender) other than borrower must be obtained.
4. Title to the mortgaged property should be registered as required by Armenian legislation.

5. Mortgaged property should be professionally appraised in order to:
   - Determine if the sale price is fair for the current market
   - Determine the restoration and reconstruction value of the property for insurance purposes
   - Determine if communal services arrangements are satisfactory (like water, electricity supply etc.)
   - Identify any defects of the property and its construction which may require further investigation and specialist reports, or which might adversely affect marketability or result in future structural deterioration or require remedial treatment. This should be done before completion of the mortgage advance and remedial treatment should be required as a condition of the mortgage advance or it should be reflected in insurance coverage obtained for the property.
   - The property shall be surveyed to ensure that issues such as contaminated land and harmful material are identified and applicable health and safety standards are met.

6. Mortgaged property should be insured for its total reinstatement value against risk of accidental destruction, accidental damage or spoilage: the insured amount should be the total reinstatement value or the outstanding loan amount whichever is higher.[49]

[49] Existing building insurance may indicate for the bank a better quality of the building

In order to ensure that the property to be pledged meets the above-mentioned conditions, the lender should require a structured appraisal in a standardized manner:

Selection and approval of appraisers	• Independent certified appraiser for site visit and report (longer term recommendation is for the appraiser to be truly independent from the lender, i.e. not employed by the bank)[50] • The appraisal shall conform with current regulatory and legal requirements in effect in Armenia • The bank shall not use an appraisal report that has been arranged by the borrower but shall develop a system of instructing independent appraisers directly, with the borrower being responsible for the cost.
Minimum content of the appraisal	• Description of property including address, year of construction, type of property (apartment or single/double family house), building method (traditional/prefabricated/other), condition and state of repair (good/average/moderate/bad), equipment (good/average/simple), state of refurbishment (fully/partially/not refurbished), possibility of owner occupation, number of housing units in development • In case of apartment, condition of common areas of apartment building • In case of apartment, form of management of building • Size of land in square metres. In the case of apartment, the share of land owned by the borrower • Number of parking spaces or garage units • Special renovation risks • Existing land contamination • Available services (gas/electricity/water) • Number of storeys and if is there a lift • Common entrance - is there a coded lock, concierge, etc. • Access to building and apartment

50 An independent appraiser would be less biased to internal bank procedures or policies. In addition, as a shelf employed person or independent company, he/it is likely to make more efforts to keep up with changing appraisal techniques and changes in the property market.

	• Location, including characteristics of general location (including access to communal facilities), similar properties for sale, demand, local infrastructure and amenities, condition of house in the neighbourhood • Recent repairs / works • Calculation of value: • Insurance re-instatement value for insurance purposes • Market value - an assessment that the sale price is fair for the current market • Forced sale value - the recovery value of the property if disposed of through repossession or enforced sale with no consideration for speculative elements

Insurance Required

Lenders should require life and building insurance from the borrower. In this regard, the lender shall develop a list of acceptable insurance companies for providing property insurance cover and life insurance. In the longer term, it is desirable for the insurance company to be independent of the lender.

Both insurances shall be concluded with reputable insurers:

- The insurance company shall be established under the legislative and regulatory requirements of Armenia.
- The insurance company should have at least 3 years' experience (effective in 2006) in underwriting risks in the life and residential property market).

The property insurance requirements shall include as a minimum:

1. Accidental destruction, accidental damage or spoilage.
2. Insurance value at least equal to the re-instatement value of the property or the amount of loan, whichever is the higher
3. Any paid claim amount shall be paid to the lender or, with the lender's consent, to the Borrower to repair the mortgaged property
4. Any claim amount paid to the borrower must be used to reinstate the property
5. Property insured for the duration of the mortgage loan
6. Borrower is responsible for premiums with insurance company advising lender if not paid
7. Policy to be index linked to building costs index (when available) or to the consumer price index. The life insurance shall include as a minimum:

- Insurance against loss of life or permanent disability.
- Initial and residual insurance value at least equal to the amount of the loan.
- Any paid claim amount shall be paid to the lender.

- Life insurance shall at least cover the duration of the mortgage loan
- Borrower is responsible for premiums. The insurance contract must state that the insurer will advise the lender if a payment is not made.

Loan Application Assessment and Approval

After collection of all information provided by the borrower, the loan department or any other division of the lender with responsibility for assessing the application data and preparing an assessment and recommendation for the credit committee shall proceed with the evaluation process. Other divisions of the bank (if applicable), such as the collateral appraisal division, security office and legal department may be involved in this process by providing their conclusions and recommendations. This assessment shall be carried out by an experienced loan officer independently of the process of obtaining data from the borrower.

The underwriting process shall include the following steps:

1. Carry out background checks on the information provided relating to income, loan history and other financial aspects of the borrower
2. Carry out checks on personal documents (e.g. passport) to prevent identity fraud
3. Evaluate the borrower' consumer history and creditworthiness (ability to repay)
4. Establish that the borrower has sufficient funds available to cover the down payment and all other costs involved in the transaction
5. Confirm the validity of the collateral title documents
6. Evaluate the adequacy and suitability of the collateral based on the appraiser's report
7. Confirm the amount of the loan and the repayment terms and conditions
8. Provide a written evaluation and recommendation to the credit committee

If the loan underwriter at this stage reaches a conclusion that the loan cannot be granted to the borrower, then the borrower shall be informed, best in writing, stating the reasons for rejection.

If the loan underwriter reaches a positive decision, the application shall then be considered by the relevant credit committee, as established by the lender’s procedures, which will reach a decision based on the analysis and recommendations.

The documented decision of the credit committee shall indicate either:

- That the loan application shall be rejected, indicating the reasons for this (in case it does not agree with the positive decision of the loan officer)
- That the loan be granted with standard terms and conditions
- That the loan be granted but with greater risk criteria applied (e.g., requiring an increased down payment from the borrower)

If the credit committee reaches a conclusion that the loan cannot be granted to the borrower, then the borrower shall be informed, in writing, stating the reasons for rejection.

Loan Offer and Completion

The loan and mortgage agreements shall be finalized according to the lender’s standard procedures for concluding these agreements in conformance with the requirements of Armenian legislation.

The following guidelines identify the minimum requirements for terms and conditions to be included in the loan and mortgage agreements. Other terms and conditions shall be included to satisfy the bank's normal requirements for such agreements.

<u>Content of the Loan Agreement</u>

The loan agreement shall include the following information:

1. Lender details (name, address)
2. Borrower details (surname, first name, patronymic, permanent residence address)
3. Size of loan amount, currency, interest rate, term and maturity date
4. Purpose of loan
5. Declaration of the borrower that he/she has full legal capacity and capability
6. Schedule of repayments to be made by borrower, including commencement date and frequency
7. Collateral details
8. Conditions of default under which lender will enforce the mortgage
9. Definition of early repayment terms and penalties
10. Definition of late payment terms and other penalties
11. Lender must be able to assign its rights under the loan agreement to another party without the borrower's consent.[51]

<u>Content of the Mortgage Agreement</u>

The standard form to register the mortgage in the land registry is the three-party agreement. It is concluded between the seller, the borrower (buyer) and the lender. If the mortgage is obtained without a sales transaction – for example, in the case of a renovation loan, it shall be between just the lender and the borrower. The mortgage contract shall at least contain the following information and provisions:

1. Mortgagee details (name, address)
2. Mortgagor details (surname, first name, patronymic, permanent residence address)
3. Seller details (surname, first name, patronymic, permanent residence address), If applicable
4. Declaration of the mortgagor that he/she has full legal capacity and capability
5. Confirmation of the amount of mortgage loan, the loan interest rate and the maturity date of the loan
6. Description of the property and/or the registration data for the property (if land is included, a description of the land must also be included)
7. Property price as at signing date
8. Price and procedure of payment
9. If the mortgaged property is jointly owned, the agreement shall stipulate that it is mortgaged with the notarized consent of all joint owners.
10. Seller is to confirm:
    a. Mortgaged property is free from liabilities
    b. Mortgaged property is not subject to other contractual obligations of the mortgagor, pledges or legal claims
    c. No restrictions on mortgagor to alienate mortgaged property
    d. No restrictions on resale of property

[51] According to the legislation of the Civil Code, lenders are entitled to transfer the legal claim on the mortgage to a third party without prior consent of the borrower

e. Property not subject to outstanding possession and sale procedures

11. The mortgagor (and seller) to be prohibited from alienating the mortgaged property in any other way, including by the issuance of mortgage deeds, without the consent of the mortgagee.
12. The mortgage agreement shall allow the mortgagee to assign the rights thereunder to another party without the mortgagor's consent to do so
13. In case of breach of the loan agreement or provisions of the mortgage agreement by the mortgagor, the mortgagee shall have the right to enforce the mortgage. The mortgagee shall have the right to commence repossession proceedings in the event of non-compliance, without court procedure.
14. The mortgagee shall have the right to enforce the mortgage outside of judicial process.
15. The mortgagor, members of his family, tenants, and other occupants of the property shall sign notarized waivers recognizing that their right to remain in the property ceases upon default by the mortgagee.
16. The mortgagor and all other occupants shall vacate the property within 30 days of notice from mortgagee to mortgagor that mortgagee intends to enforce the mortgage.
17. After seizure of the property, mortgagee shall be permitted to sell the property in any manner allowed by Armenian law in effect at the time of the sale.
18. The mortgagor has to maintain the property in good condition
19. The mortgagor has to insure the property as required by the mortgagee
20. The mortgagor to inform mortgagee of any material changes to the property or its condition (proposed or actual) or changes in the usage of the property and to seek the bank's consent to these.

Servicing

The main goal of servicing is to secure efficient management and monitoring of the mortgage loan account and the relationship from draw down to redemption of the mortgage loan. It also provides quick access to information about the individual mortgage loan and the whole mortgage loan portfolio. A highly automated processing system will lead to lower cost and a better tracking of missing payments and documents. In this regard, quality control of the documents helps to verify compliance with investors' information requirements (and to avoid possible repurchases of non-complying mortgage loans). Finally, servicing focuses on improving the ability of the lender to provide customer service, handle requests and maintain customer satisfaction and retention.

File Set-up and Document Control

Besides the physical administration of the mortgage loan files, lenders shall possess special software programmes for the processing of mortgage loans. This software should allow for complete storage of all data related to the mortgage loan transaction. In addition, it should display repayment schedules, maturity profiles, geographical distribution, arrears profile, etc., in order to comply with the reporting standards of the lender.[52]

Ideally, mortgage loans should be serviced and monitored by loan officers who are not directly involved in the initial sales process (i.e., back office personnel). The responsibilities of these loan officers must include:

[52] Such software tools will receive particular attention as soon as banks start to securitize their mortgage loan portfolios in order to meet investors' information requirements.

1. Set up and maintain mortgage loan files in which all important documents provided by the borrower are stored.
2. Control whether all required documents are present.
3. Control of payments for mortgage loans.
4. Processing early (pre-term) payments on mortgage loans and, where appropriate, recalculating loan repayment schedules.
5. Carrying out bank procedures for overdue mortgage loan accounts, including reminders to borrowers, calculation of penalties and initiation of the bad loans process for recovery of the debt.
6. Reviewing the collateral, property insurance and the borrower's financial position on a regular basis.
7. Carrying out final closing processes upon maturity of the loan.

Payment Processing

Direct debiting should be the preferred form of repayment rate collection since it is the quickest and cheapest form to process loan repayments as well as to identify delinquent borrowers.

Often, borrowers hold their current account with the bank that grants the mortgage loan.[53] This close link should allow the bank to utilize direct debiting software tools.

Quality Control

Review of each mortgage loan shall take place at least once a year. It comprises an assessment of the borrower's current ability to repay. This work comprises both the evaluation of the employment situation, relationship with other banks and financial status since the conclusion of the mortgage loan agreement. Furthermore, the loan officer shall check life and building insurance on adequacy and continuation of cover.

Borrowers shall be obliged to present an income statement and any other information which the lender considers crucial to the review (e.g. insurance or tax payments etc.). The review of the property itself once a year shall be mandatory in case of a home construction loan.

Customer Service

A well-functioning servicing of mortgage loans is a necessary prerequisite for dedicated customer orientation and servicing quality. It also assists lenders in reaching a competitive edge. It is recommended that the following information be provided to the borrower:

1. Written confirmation of the key terms of the mortgage loan once the contract is signed.
2. Annual statements regarding the mortgage loan detailing the principal outstanding, the interest payments made during the year and any penalty interest or other penalty charges.
3. The lender's policy or equivalent internal regulations in the case of arrears and/or possession.
4. The lender will inform the borrower on at least an annual basis of any changes in the fee structure, e.g. redemption penalties, statement fees, re-mortgage fees, etc.
5. Written notice if the mortgage is sold to another lender or financial institution (when applicable).

[53] Except credit organizations.

Risk Management and Funding

Lenders shall be capable of proving that capital and shareholder funds are being prudently managed and that appropriate risk management controls are in place, in the sense that mortgage loans are underwritten in concordance with clearly defined standards, arrears management is appropriate, overall portfolio funding risks are being monitored and mortgage designs and pricing reflect these risks. In this regard, a clear credit policy improves the transparency and consistency of the mortgage lending process of the individual lender, thus facilitating issues of mortgage bonds/MBS in the future.

Credit Policy

The credit policy of the bank shall be set out in a manual. A manual is considered a tool to facilitate the taking of acceptable risks by setting parameters within which a lender structures, approves and manages credit facilities and credit relationships. It does not only give clear guidance and direction to staff but also demonstrates to potential investors and rating agencies the type and style of risk management in place.
The manual shall detail the lending policy, and the processes and procedures for the complete loan lifecycle. This shall comprise a written description and a flow chart showing the steps involved, and shall include the following stages:

Origination	• Customer interview • Obtaining required documentation • Standard conditions for lending • Assessing ability to repay • Collateral valuation • Standardized loan and mortgage document preparation • Completion of loan application and mortgage documentation forms • Credit committee decision process and documented authority levels • Underwriting the application
Servicing	• Standards in loans agreement and three party contract • Loan and mortgage commencement process • File set up and document control • Legal process and registrations • Review procedures • Post completion monitoring
Risk management and funding	• Organization structure of the mortgage lending process and responsibilities of the individual departments • Reporting standards • Account management • Arrears management policy

The bank shall also have in place adequate controls and checks to ensure credit policies are properly applied.
A regular review of the credit policy is recommended so that amendments are taken into consideration to adapt to changing market conditions.

Funding Management

Banks shall be required to perform extensive Asset-Liability Management (ALM) and Value-at-Risk (VAR) analysis to assess overall portfolio risks. The form of ALM and the VAR analysis can form part of the annual report.

Account Management

The account management comprehends adequate reporting standards, monitoring procedures and arrears management.

Reporting Standards

The lender must be able to report on and analyze the mortgage loan portfolio to a considerable degree of detail, with particular focus on collateral data, historical performance data, prepayment information and loan-specific information. Monthly/quarterly/annual reports shall be available by the branch, area and overall group for:

- Mortgage book size split by products (total value, total volume, average term, average interest rate, average LTV, average PTI)
- Market share of national mortgage market (if available)
- Market segments (e.g. first time buyer, switcher, renovation)
- Portfolio share by sales channel, where applicable (intermediaries, bank staff, other).
- Growth profile
- Performance versus targets
- Applications versus approvals versus declines versus draw downs
- Application pipeline
- Arrears profile (split into 7, 14, 30, 60, 90 and 120 days and further split by year of origination)
- Maturity profile
- Geographic profile (if applicable)/employer profile
- Profitability

It is important that historic information is retained at all levels including individual account performance (in order to establish a track record).

Monitoring of Mortgage Loan Accounts

The following shall be adhered to in order to ensure efficient monitoring of mortgage loan accounts:
- Approvals are converted into draw downs
- Correct registering of mortgage before drawdown
- Inflows of repayments are up to date
- Premiums of life and building insurance are paid
- Insurers report incidents of cancelled or non-payment of life/building policies

Arrears Management

The monitoring payment cycle shall ensure that the borrower makes his loan payments on time. As soon as the software programme reports a missing payment to the loan officer, he shall perform the following tasks:

1. The loan officer shall contact the borrower, by telephone or in person, if possible, to
   - Find out the reasons for default
   - Remind about penalties that the bank may impose
   - Advise of the consequences of such penalties for the borrower
   - If necessary and appropriate, loan officer takes remedial actions (e.g. amendment of re-payment rate, grace period etc.).
2. If the payment becomes 10 days overdue the loan officer shall send the borrower a registered letter to:
   - Require an immediate payment of the overdue amount
   - Warn of the potential consequences of continued non-payment
   - A copy of the letter shall be placed in the loan file
3. If the payment becomes 25 days overdue the loan officer shall send the borrower a registered letter to:
   - Insist on an immediate payment of the overdue amount
   - To advise borrower that continued non-payment after five days will induce foreclosure.

In all cases, foreclosure should be the action of last resort. Even in developed countries, it is a costly and time-consuming process in which banks often fail to recover the full loan amount. Typically, delinquent loans should be processed in a separate department.

The foreclosure process is for the lender a very fraught situation. It is probable that the relationship with the borrower has totally broken down. If the business decision is to repossess the home then it is critical that the security is absolutely 100% in order. The day the security is taken is in reality the day it is realized.

ANNEX 4

Establishment of Contractual Savings Schemes (CSSH)

CSSH are one of the simplest and oldest funding mechanisms in housing finance. Typically, they link a savings period to the promise of a housing loan, which is fixed at a rate below the market level at the time of the conclusion of the CSSH-contract.

This part of the feasibility study is aimed at exploring whether CSSH are a suitable measure to support housing finance market development in Armenia and under which conditions an introduction appears feasible.

The Annex is organised in the following way: first, it lays down the macroeconomic conditions to be in place for the implementation of CSSH in Armenia. Second, it focuses on the readiness of the banks to adopt CSSH. The third part provides a description of the fundamental mechanics of CSSH and an analysis of CSSH in the light of the Armenian context (risks related to CSSH, cost to consumers and government and readiness of the financial system). The last part discusses recommendations for the establishment of CSSH in Armenia. In this context, the team suggests an appropriate CSSH model that takes into consideration the current economic and social conditions in Armenia.

Besides interviews with banks and CBA, findings of this chapter are also based on a discussion round with Armenian banks, CBA, MoFE and KfW, which took place on 9 June 2005 (during the field work).[54] This discussion-round provided an overview on the mechanism of CSSH, the related risk. In addition, the team discussed with the participants the proposed CSSH-model.

A4.1 Environment for the Implementation of CSSH in Armenia

A4.1.A Inflation rate

Armenia has continued its path of macroeconomic stabilisation: in 2004, GDP grew by 10.1 %. In 2005, it is expected to increase by 8 %. Consumer price inflation fell from 8.6 % in 2003 to 2 % in 2004, aided by tight monetary policy and continued appreciation of the Dram. Up to March 2005, inflation slightly rose to 3.5 %, mainly due to higher-than-expected increase in food prices earlier this year.

Table A4.1: Main Indicators of Armenian Economy

	2003	2004	2005	2006	2007	2008
Real GDP growth in % of GDP	13.9	10.1	8.0	6.0	6.0	6.0
CPI inflation (end-of-period) in %	8.6	2.0	3.0	3.0	3.0	3.0

Source: Armenian authorities and IMF estimates.

[54] The names of the participants are listed in the Annex.

Table A4.1 provides an overview about the main economic indicators. Inflation is expected to remain stable. This assumption is supported by a sound fiscal and monetary policy. Furthermore, GDP growth is likely to remain stable as well. As a result, the whole economy will show a solid development, which would be considered necessary to convince people to commit longer-term savings obligations.

A4.1.B Savings rate

Saving with banks is still low, albeit slowly increasing. Concerns about account privacy may be a deterrent to deposit mobilisation in the banking system. There is a perception that tax authorities can wilfully garnish accounts, even though this is only possible via court action or by CBA in the event that money laundering has been detected. The desire to avoid taxes keeps, therefore, funds outside financial institutions.

In addition, many Armenians are still haunted by bank failures as a result of the losses form the 1990s due to hyperinflation, pyramid schemes, collapsed banks (even as late as 2001), and legacy of fraud and mismanagement). This mistrust in the banks adds to the resistance to place money in a bank account.

Demand deposits represent the biggest share of the deposit base of Armenian banks. Typically, most of the term deposits are not held longer than 180 days to one year. It is assumed that there is a considerable volume of money outside the banking system.

Between 2002 and 2004, credit growth was stronger than deposit growth: whereas customer deposits to total domestic loans stand at 195.3 % in 2002, it fell to 177.3 % in 2004.[55] If this trend continues, banks are obliged to offer more attractive savings products (or higher yields on existing deposits) in order to attract more deposits to finance future credit growth.

A4.1.C Savings activities of households within the banking sector

By 1 May 2005, Armenian banks recorded deposits worth ADM 183.2 billion. The share of deposits denominated in foreign currency slightly decreased whereas deposits denominated AMD increased. However, the most of deposits are still held in USD.[56] On the whole, the volume of deposits fell. [57] The increased volume of deposits in AMD reflects a rising confidence in the currency and in the banks. [58]

Some banks have already started offering savings contracts. One bank informed the team that they run a special saving scheme in which parents can place funds for their children (up to 18 years). However, they do not advertise it. Those banks which offer term deposits charge the customer a penalty fee in case he withdraws the money before the agreed maturity.

[55] See IMF, Request for a Three-Year Arrangement Under the Poverty Reduction and Growth Facility, 10 May 2005, page 2005.

[56] Foreign currency deposits account for about 70 % of total deposits and about 80 % of time deposits.

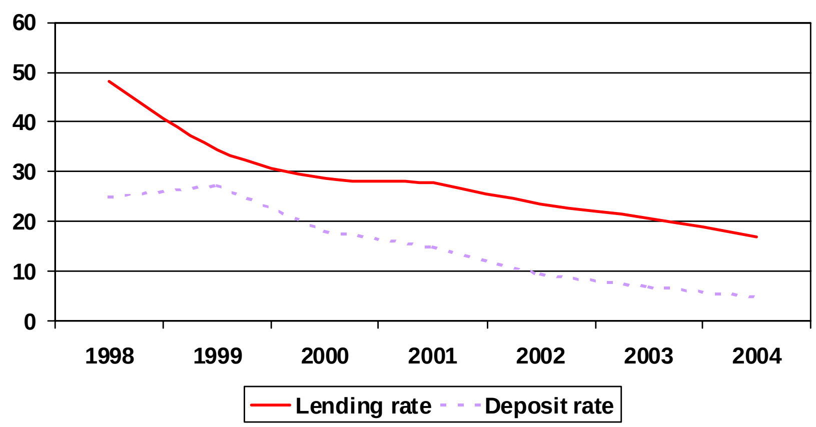
[57] See ARCA News Agency, Households' deposits at Armenian banks made up 76.5 billion AMD in Jan-Apr, 2005, Yerevan, 1 June 2005.

[58] The current situation may therefore contradict CBA's estimates. The future rise of ADM deposits depends on the stability of the Dram inside Armenia and in relation to other currencies.

A4.1.D Interest rate environment

Since CSSH both encompasses a savings and a loan product (including the option to take up a loan at preferential terms), current market conditions have a great influence whether a customer signs a contract or not.

Chart A4.1: lending and deposit rates (1998 - 2004)



Source: EBRD Transition report 2004, Armenian banks

According to chart A4.1, both lending and deposits decreased during the period 1998 – 2004 and are expected to decrease further. On the one hand, lending becomes cheaper and more affordable. On the other hand, the saver earns a lower remuneration on his savings. However, the real value of his savings will be less eroded (due to falling inflation).

At present, banks pay different interest rates for USD and AMD deposits: interest rate start at 4 % p.a. for USD and 5 % p.a. for AMD for three-months term deposits and go up to 6 % p.a. for USD and to 8 % p.a. for AMD.[59]

Loans are usually granted in USD. Interest rates vary from 12% to 18 % for housing loans, but some banks charge up to 24 % in case of consumer loans, which are sometimes used for home improvement. Due to a further stabilisation of the economy and increased competition among banks, the team expects interest rates to further decrease.

As a result, a bank that envisages launching CSSH can expect decreasing interest rates on deposits and loans. The team recommends that banks should take into consideration this scenario when designing the CSSH product.

[59] These are the general margins in which deposit interest rates fluctuate. Some banks pay less or more. Typically, the difference between deposits in USD and ADM is about 1.2 percentage points.

A4.2 CSSH – description and analysis

Banks have expressed an interest in this type of product in the interviews the team conducted during the fieldwork. Some banks have already implemented savings plans (but with not direct link to a housing loan) the success of which has still to be proven.

The following analysis on a possible introduction of CSSH is organized in a way that the instrument is assessed against specific criteria in the light of the Armenian context. This assessment is followed by suggestions for the establishment of CSSH in Armenia.

The following criteria will be applied:

- Likely effectiveness of system in addressing financial risks. CSSH like any other financing instrument is subject to an array of risks. The risk analysis outlines to what extent the instrument is subject to individual risks and which measures can be introduced to mitigate each risk. The following risks are analyzed:
  - Credit risk
  - Interest rate risk
  - Liquidity risk
  - Exchange rate risk
  - Prepayment risk
- Cost to consumers. Which costs are imposed on the consumer when he takes up a mortgage loan? Costs usually consist of the interest rate and further fees, including notary and cadastre fees, credit report, and an application fee if the lender requires one.
- Cost to lenders. Which costs does the lender bear when he introduces CSSH?
- Cost to government. Which cost does the government incur for the introduction of a new financing instrument in the market? How far should the government be involved in regulating the market?
- Readiness of financial system for the innovation and its long-term sustainability. To what degree is the Armenian financial system ready for the introduction of new financing tools both now and in the next 2 – 3 years? What may happen if the inflow of savings drops?

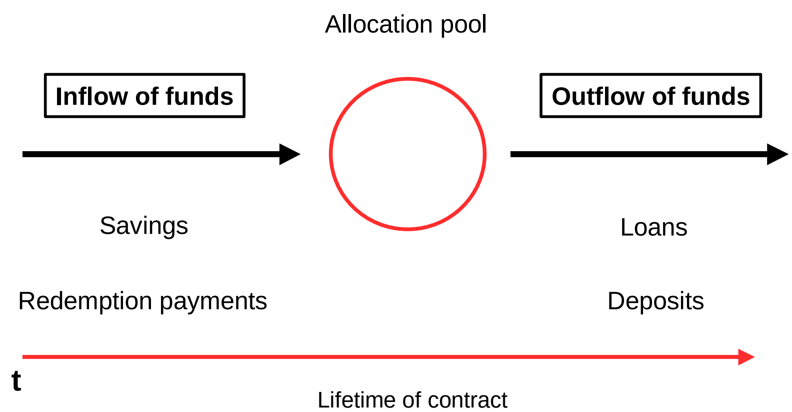
A4.2.A Mechanics of CSSH and implied risks and cost

CSSH offers a dedicated loan-linked form of saving. It links a phase of contractual savings, usually remunerated at below market interest rates, to the promise of a housing loan at a rate fixed below the market level at the time of the conclusion of the CSSH-contract. Mainly two forms of CSSH have emerged:

- Closed system: funding of CSSH-loans exclusively relies on savings funds previously collected by the CSSH institution.
- Open system: external funding is permitted when the inflow of savings does not suffice to meet the loan commitments of the CSSH-institution.

Today, operating CSSHs show variances of these two types ranging from strictly regulated closed systems (e.g. in Germany, Slovakia, Czech Republic) to open CSSH regulated systems (France) or unregulated open schemes (e.g., Iran, Latin America). Despite different features, the underlying construction of the CSSH product is more or less identical: it starts with a savings period, in which the saver is required to regularly save, eventually accumulating about 50 percent of the previously agreed contract sum. Subsequently, he is entitled to a loan offer. The CSSH-loan, which is made up of the remaining balance between the contract amount and the amount saved, will be paid out to the customer together with his savings. Especially in a closed system, the disbursement of the CSSH-loan may be deferred unless there are enough funds in the savings collective. Thus, the customer may be subject to a waiting period. During the loan period, the customer repays his CSSH-loan in regular installments.

Chart A4.2: The Allocation Pool in a Closed System



Source: Roy

The closed CSSH system can be described as a “time-money”-system: on signing of the CSSH contract agreement, all conditions will be fixed (including the interest rate on the savings and the loan), i.e. the CSSH bank cannot use the interest rate to balance supply and demand of funds. As the graph above indicates, the allocation pool is therefore the decisive management tool in a closed system because the CSSH institution can only allocate those funds in form of CSSH-loans, which it has previously collected.

Hence, customers are subject to a waiting period the length of which depends on the availability of funds. The challenge for the CSSH-institution in managing such an “allocation pool” is to balance fluctuating inflow and outflow of funds in order to meet future loan demands within a reasonable time span. In order to reach short and consistent waiting periods, closed-system CSSH institutions stick to specific queuing rules, which determine the sequence of the loan disbursements.[60]

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60 The sequence of the individual loan allocations is regulated through an assessment figure that is aimed at measuring the saving performance of every saver. The calculation of this figure takes into consideration the amount of funds and the period of time the CSSH-contract saver has made his savings available to the CSSH-community in relation to the total commitments of the CSSH bank. The higher the assessment figure, the earlier the customer becomes eligible for allocation of the CSSH loan.

The concept of the closed CSSH system makes external funding less relevant. However, overall market conditions influence fund supply and loan demand. Especially in a volatile environment, a cash shortfall is likely and may lead to unsustainable waiting periods. Hence, most countries which have introduced CSSH have applied strict laws and introduced tight supervision (usually through the central bank) to ensure the stability of the CSSH pool and the managing institution.

In Germany, the system started its operations in the mid-1920s as private savings initiatives (Bausparkassen) in order to offer low- and middle-income groups a savings channel to build up the necessary down-payment in order to become eligible for the CSSH (or bauspar)-loan and a regular mortgage loan.[61] Today, activities of the Bausparkassen are regulated by a specific Bausparkassen act. This law also constitutes the principle of specialty for the Bausparkassen.[62] It defines the rights and obligations of the Bausparkasse and limits the business to make housing loans available to its participants by raising prior savings from them. The German Federal Financial Supervisory Agency (BAFIN) and the German Central Bank (GCB) supervise and regulate the Bausparkassen. BAFIN issues the licenses permitting a Bausparkasse to take up business and approves bauspar contract terms (tariffs). The GCB monitors the liquidity position of every Bausparkasse.[63]

In Germany, bauspar customers are also entitled to a savings bonus, which is provided by the government. To be entitled to a bonus, the customer must save for a minimum period of 7 years and must not exceed income limitations (taxable yearly income up to € 25,600 for a single person and € 51,200 for a married couple). If the saver fulfils these criteria, he will receive a bonus of 8.8 percent of his annual savings up to a maximum of € 45.06 (for a single person) or € 90.11 (for a married couple). The government does not grant any tax exemptions. Most other countries with CSSH offer similar support.[64]

CSSH systems similar to the German bauspar system have appeared in the Czech Republic (1993), Slovakia (1992), Hungary (1996), Croatia (1997), Romania and China (2004). The business of specialized CSSH-institutions is regulated by a special CSSH act and supervised by the central bank. Customers in those countries are also entitled to a savings bonus.

Likely effectiveness of system in addressing financial risks

- Credit risk: due to the pre-savings requirement, a high number of defaulting loans are unlikely. Default rates of the Bausparkassen in Germany amount to 0.03 percent of the total loan portfolio and in Slovakia to 0.56 percent (data as per December 2003). In Armenia, the pre-savings argument may be very valuable for those clients who have not yet established a credit history.

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61 Bausparkassen specialized on loans secured by second ranked mortgages established in this way a division of labor between universal or mortgage banks and the Bausparkassen: whereas the latter grant loans with an LTV ratio between 60 % and 80 %, the lending ceiling of universal banks and mortgage banks goes up to an LTV ratio of 60 %.

62 On adoption of the Bausparkassen act in 1972, the legislator justified the introduction of specialized Bausparkassen as follows: securing access to subordinated loans at reasonable costs, thus also confirming the division of labor among banks and Bausparkassen. Furthermore, he states that the specific characteristics of the bauspar business require specialized knowledge, which is not necessarily known to a universal bank. Specialized institutions are also better at avoiding a misuse of funds than a universal bank model.

63 The German Central Bank monitors Bausparkassen under legislation on banking monitoring and supervision.

64 For a detailed overview, see R. Struyk, "Homeownership and Housing Finance Policy in The Former Soviet Bloc – Costly Populism, Urban Institute, Washington, 2000.

- Interest rate risk: in a closed system, interest rate risk is limited by the contract design. However, pricing of the contract must take into consideration capital market movements. If interest rates on the savings and the loans do not anticipate future market developments, attraction of savings or selling loans may become difficult.

  Typically, interest rates on deposits in a CSSH are below market rates. However, the high spreads, which are likely to remain unchanged in the next years, may allow the bank to offer a savings interest rate which is equivalent to market conditions in order to be more competitive with ordinary savings products. The next section discusses a suggestion how to adapt the interest rates of CSSH to the Armenian context.

- Liquidity risk: the key risk of a closed CSSH is liquidity risk, or the risk that banks will have insufficient low-rate funds in the scheme to meet future loan demands. Therefore, aggregate liquidity management crucially depends on whether products are individually viable and how credible the scheme is as a generator of loans. The latter implies ensuring a sufficient ratio of loan allocations within the collective. As a result, contractual loan-to-savings multipliers cannot exceed certain prudential values. The team recommends that in a set-up phase, the multiplier should not be higher than 1.[65] In order to establish confidence in CSSH and, thus, to attract customers on a sustained basis, the overall concept of the CSSH is the crucial element. Stability of CSSH can be achieved through carefully designed legislation and tight supervision by CBA.[66] In addition, CSSH contracts should be subject to prior approval (also by CBA) before the system's launch in the market. Testing should show that the contract design would work under several scenarios (e.g. increase of the inflation rate).
- Exchange rate risk: as long as contracts are offered in one currency, exchange rate risk does not exist. If a financial institution decides to offer CSSH in USD and ADM, it should be obliged to establish separate pools for the respective currency. In case of CSSH in USD, however, the customer would bear the exchange rate risk.

- Prepayment risk: for liquidity management reasons, CSSH loans are usually pre-payable. These prepayments are reinvested in new CSSH loans, which stabilize the CSSH pool. If contract savings and loan rates are set too high, a drop in market rates may force the managing bank to reinvest large sums at low or negative spreads. Since interest rates in Armenia are expected to decline, a surge in prepayment seems feasible. The Armenian mentality to avoid incurring debts may reinforce this assumption. Thus, the pricing of the CSSH-product should anticipate future interest rate movements in order to avoid massive pre-payments. A later limitation of prepayments may make the system less attractive.

Cost to consumers

A CSSH scheme consists of three products: a savings product, the option to receive a fixed-rate loan product (interest rate option product) and the option to receive a loan proportional to savings (credit option product). A customer may face difficulties in adding direct costs to each individual subproduct.

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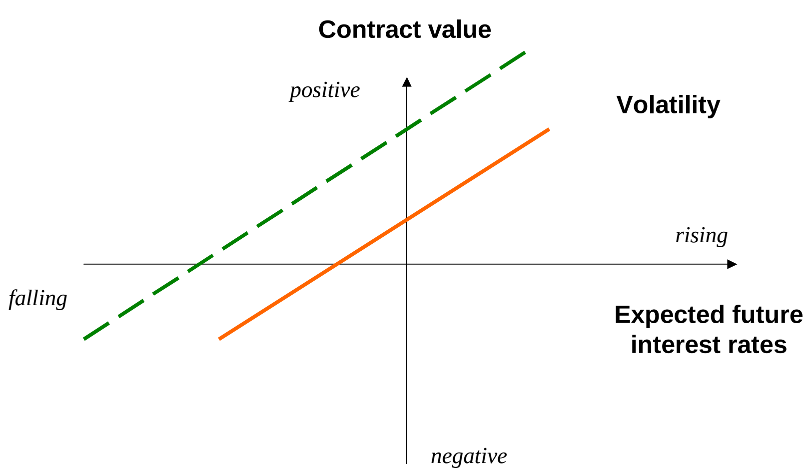
65 Albeit fundamental, it is nevertheless often violated in inflationary environments when no additional measures have been taken to preserve the real value of savings. The consequence is a severe rationing of willing loan takers through the imposition of waiting periods or, in the cases where this is legally impossible, by conversion into an open system with interest rate risk. In the extreme form, the system accumulates a large number of fixed-rate loan claims and becomes insolvent and/or illiquid.

66 Existing systems also oblige CSSH-institutions to establish a reserve fund in order to balance fluctuating flows of funds.

As Chart A4.3 shows, therefore, the definite value of the total product the customer attributes to the product depends on the individual expectations of the customer: if, for example, he expects interest rates to rise, he will value the interest rate and credit option higher and be more willing to accept a lower return on his savings (upper right quadrant).[67] It will drop in value in the reverse case (lower left quadrant). The contract value may become negative if the opportunity costs of higher remunerated savings today exceed the value of the interest rate option.

The interest rate option value rises, the more volatile the interest option is. The CSSH contract may in fact become extremely valuable as a protection against interest rate risk for the buyer's perspective (dark green dashed line). This feature is typical for countries with high levels of monetary instability of banking sector fragility. Although interest rates are likely in decline in Armenia, short-term hikes may interrupt this trend. In addition, the banking sector in the country is still viewed as tenuous.[68]

Chart A4.3: Determination of CSH Contract Value in Relation to Development of Interest Rates



Source: Dübel

Cost to lenders

The introduction of CSSH usually results in the following costs for a financial institution:

- Purchase or development of the relevant software and its integration into an existing IT-structure.
- Administration costs: legislation may require the CSSH-institution to administer CSSH-funds separately from the bank's other assets and to fulfill certain rules.

[67] The contract value may become negative if the opportunity costs of higher remunerated savings today exceed the value of the interest rate option.
[68] CBA requires banks to increase their capital to USD 5m by July 1,2005. Some banks may face difficulties meeting this requirement, thus increasing the likelihood of banks failures and more instability in the banking system.

- Training (and possibly recruiting) of staff and sales agents: CSSH are sold through different sales channels of which branches and sales agents are the most important. Since CSSH is a mass product and requires a wide outreach, a CSSH institution requires a widespread sales agent network.
- Marketing costs: in order to reach a considerable number of potential clients, the CSSH institutions may count on some marketing costs.

Cost to government

The choice of CSSH schemes as a housing policy instrument worth special support has been controversial.[69] The team recommends that CBA and the responsible legislative bodies of Armenia should emphasize the functionality of CSSH, i.e., prudent legislation and tight monitoring of CSSH should be an unconditional prerequisite for their implementation.

A direct support in the form of a savings bonus requires a profound and distinct argumentation since the government has not considered so far subsidizing housing finance. Direct subsidies for a CSSH system may induce further subsidy claims on the government and lead to distortions in the housing market as well as a severe burden on the state budget.[70] Therefore, the team recommends the government to abstain from any subsidies paid out to holders of a CSSH contract.

Readiness of financial system for the innovation and its long-term sustainability

Since longer-term savings products have not been tested in Armenia to date, a successful launch of CSSH may induce higher savings activities in the country. Bankers interviewed by the team welcomed the introduction of CSSH. These banks saw the scheme as particularly applicable to modest loans for home improvement or for complementing other mortgage loans. The final outcome largely depends on the individual and regulatory structure of the CSSH-product. Banks may also use this product in order to expand their customer base and to deepen the existing one.[71] An important issue is whether consumer confidence in banks is already sufficiently developed to encourage them to sign multi-year savings contracts.

As experiences in Germany as well as in other transition countries have shown, CSSH have helped improve the access to credit of low and middle-income groups since they are able to save into creditworthiness. Therefore, CSSH can be regarded as a tool in Armenia to reach groups, which so far have little or no access to credit.

CSSH also contributes to enhancing long-term funding in Armenia because customers are expected to save for at least 2 – 3 years and to receive a loan with at least similar terms. CSSH in Slovakia,

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[69] See D. Diamond, "Do Bausparkassen Make Sense in Transition Countries?", European Mortgage Review, Issue No. 21, Council of Mortgage Lenders, London, 1999.

[70] Some countries in central and eastern Europe (like the Czech Republic and Hungary) introduced extensive subsidy schemes of various forms and sizes in order to promote housing. As a consequence, these countries suffer from a distorted housing sector and higher budget deficits (especially Hungary). For further information, see A. Dobricza, "Home finance subsidies in Hungary", Housing Finance International, December 2004; H.-J. Dübel, "Wohnbauförderung in Mitteleuropa", BWV Berliner Wissenschafts-Verlag, Berlin, 2004.

[71] Surveys in Germany have shown that bauspar customers have purchased at least two other bank products in comparison with non-bauspar clients.

for example, offers households almost automatic access to long-term credit with typical loan durations of 10-20 years, including for smaller investments.[72]

The case for CSSH is strongest when considering its use outside the standard mortgage market. CSSH offers generally small volume loans, which are often not collateralized by mortgages and are therefore costly to securities.[73] According to the team's assessment, CSSH loans may be an attractive instrument to finance renovation and modernization in Armenia. Since demand for housing improvements is very high, CSSH may offer to households a lower-cost alternative to consumer loans on offer currently for these purposes.

A4.3 Recommendations for the establishment of CSSH in Armenia

This part of the study concentrates on recommendations that are crucial to creating a stable and effective CSSH. In this context, it shows an example for a possible contract design.[74] In addition, it provides an outline on the desirable input of legislation on CSSH.

Taking into consideration the various risks CSSH imply, the need for tight and strict regulation as well as supervision and monitoring is clear. These measures are aimed at supporting the stability of the system and raising confidence in the scheme, thus laying the foundation for continued attractiveness and viability of the scheme.[75]

Open versus closed CSSH systems

Open CSSH systems add ordinary bank funds for loan allocation, if necessary. The advantage is simplified liquidity management and a greater loan volume allocation to the saver; the disadvantage is a higher vulnerability of the financing to interest rate risk arising from volatile market conditions.

Proponents of closed CSSH systems argue therefore that the central value of the contract is diluted. Closed schemes, in contrast, rely exclusively on collective savings, which enable them to fix low interest rates for both savings and lending. The downside is that closed schemes generate significant liquidity risk, if market conditions are averse to attracting new saver generations. Lending is therefore rationed to savers with sufficiently high savings efforts, and more limited in volume than under open schemes. In crisis situations, closed schemes have been forced to move to open status. Promises to provide loans for low fixed rates can no often longer be held under these circumstances.

The team recommends implementing CSSH in Armenia in form of an open system in order to avoid the traps the closed system contains. In this context, the interest rate setting should be variable in order to avoid a surge in cost of funds (i.e. interest rate risk) in case market rates fall or increase.

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[72] For a detailed analysis on the Slovakian CSSH market, please compare H.-J. Dübel, "Financial, fiscal and housing policy aspects of Contract Savings for Housing (CSSH) in Transition Countries – the Cases of Czech Republic and Slovakia", study commissioned by the Financial Sector Development Department of the World Bank. Washington, D.C., 2003.

[73] In the Czech Republic and Slovakia, 70-80% of loans are not collateralized and are given on a personal guarantee basis.

[74] This suggestion has been already discussed during a discussion round with Armenian banks on 9 June 2005.

[75] Continued attractiveness to new savers depends on both the savings return and the availability of loans. A steady inflow of new savings is required to manage liquidity risk and interest rate risk

CSSH managed within a specialized circuit or within a universal bank

In Germany, Austria, the Czech Republic, Slovakia, Hungary and Croatia, specialized institutions run CSSH. The argument for specialization is maximum risk management quality and exclusive business focus. For example, the Slovakian Bausparkasse, P.S.S., pioneered a new origination, servicing and risk management infrastructure for the Slovakian housing finance market. Specialized institutions also underline the strict mutuality and transparency of the system: almost all funds come from savers (mutuality) and can be used only for housing loans (transparency).

Institutional specialization has led to an undesirable fragmentation of the banking system and the deposit base in Slovakia and the Czech Republic. Moreover, such a structure is associated with a closed system. Thus, they are more exposed to macroeconomic shocks. Liquidity risk will strongly rise when the inflow of savings drops substantially. Furthermore, they must be separately capitalized and staffed, which is particularly burdensome in a small bank sector such as Armenia's.

The team recommends that CSSH should be open to all market participants i.e., operated within ordinary banks.[76] Since the Armenian market is very small, it remains doubtful whether a specialized institution will be viable in the long run.

In any case, CSSH funds should be separated from other activities and separately shown in the balance sheet in order to facilitate supervision. CSSH should be subject to special regulation, due to the risk profile of the product. The regulation on CSSH should be in line with the overall banking legislation of Armenia.

Regulation must assure high supervisory standards in order to protect the savings of the customers and to keep waiting period balanced. The team believes that CBA would be the appropriate regulator and supervisor of CSSH since Armenian citizens have a great deal of confidence in the strength and reliability of this institution. However, regulation should make it clear that CBA would be not the guarantor of CSSH in case banks face difficulties in meeting the contractual obligations of CSSH, thus allowing customers to claim payment of lost savings from CBA.

In addition, the team recommends that CBA will also grant CSSH licenses in order to ensure an appropriate management of CSSH. A failure of a CSSH could severely dilute the rising (though weak) confidence in the banks.

Support of CSSH

The team does not recommend the introduction of a savings bonus. However, it may be worthwhile supporting the banks that operate such a scheme. The following variant seems adequate to the team:

- Lower capital requirements for CSSH loans. Default rates of CSSH loans are relatively lower than those of regular housing loans. Therefore, lower capital requirements would be justified. They will provide a good stimulus to the banks. Since banks are asked to separate CSSH funds from other activities, CBA would be capable of correctly tracking the loans.[77]

[76] Credit organizations are not entitled to collect savings from the public.

[77] CBA indicated to the team that mortgage loans might be subject to a different risk weight in the future.

- Lower minimum reserve requirements. Saver will dedicate their money for a longer period. Through the regulation, banks are obliged to prudently manage these funds. This measure could also work as an incentive to get more banks involved in this type of product, thus providing better access to housing to low and middle income groups.[78] The team recommends that such a rule may be set for revision after a certain time (e.g. 3 – 5 years). Clear criteria should be defined when the supervisor could abandon this favorable treatment without harming the development of the product.
- An increase of the deposit insurance would be also an option. However, the amount to be secured goes up to USD 2,000. This threshold appears to the team sufficient since most of the loans are expected to be used for renovation/modernization, thus contracted saving amounts will rarely exceed this amount in the start-up phase of CSSH.

The team recognizes that the final involvement of CBA in regulating, supervising and supporting the introduction of CSSH requires further analysis and profound discussion with CBA. This work could be a part of the consulting portion of the project envisaged by KfW to promote the development of housing finance in the country.

A4.4 Proposed model for Armenia

The suggestion presented takes into consideration the comments of the participants of the discussion round on CSSH and the findings during the fieldwork. The team suggests the following design:

- The customer should save at market rates in regular instalments. Since these savings are long-term, the rate should be fixed at least for one year (better two years) until a reset is considered (to adapt the interest rate to changing market rates).[79]
- Since CSSH will be offered in form of an open system, the following rewards are recommendable:[80]
  - The customer should benefit from a lower interest rate on the loan (e.g. 150 basis points). This reward will be deducted from actual market rate on conclusion of the loan agreement. The discount would reflect the lower credit risk and liquidity risk of these loans.
  - The bank will grant a higher loan amount only equal to the savings amount. Later this could be expanded up to a multiplier of 2. Since it is an open system, refinancing of these loans can be done through the market.
  - The customer will benefit from a longer repayment term, thus lowering the actual redemption rate and raising the overall affordability.

- In any case, the bank reserves the right to decline a loan offer in case the customer is not creditworthy. In this case, the bank will pay back the savings (including interests) to the customer.

[78] The team recommends that regulation should define strong criteria for CSSH deposits in order to avoid window dressing by the banks in order to benefit from preferential reserve requirements for other types of deposits.

[79] Banks already offer term deposits with the interest rate fixed for one year.

[80] Bank may only select one alternative or offer a mix of all three. All these incentives are justified because of the lower credit risk. Therefore provision cost would be lower. Eventual support of CBA (in form of lower capital requirement and/or lower minimum reserve requirements) will also add to lower cost for the bank.

- Contract could be denominated either in USD or AMD. This rule should be also valid for the loan agreement in order to avoid currency risk for the customer.

To give you an example, the model can be structured as follows (see Chart A4.4 below).[81]

Chart A4.4: Main Features of Proposed CSSH Contract

Contract amount in savings period (in USD)	USD 5,000
Interest rate for savings	5% p.a.
Interest rate for loan	Minus 150 basis points from actual market rates on conclusion of loan agreement
Contracted savings tenure	2, 3, 4, or 5 years[82]
Payment	Monthly
Allocation of loan	On completion of the contracted savings tenure
Loan amount	USD 5,000
Redemption of loan	In equal monthly instalments (calculated on the basis of the amount and tenure)

Source: Roy

In this model, the loan multiplier will be 1 (i.e. the difference between the contract amount and paid-in savings).[83] Allocation of the loan will be provided if the savings time is completed (after 3, 4 or 5 years), the stipulated savings contributions are paid in and the customer is creditworthy.

The purpose of the loan is purchase/construction of a house, renovation/modernisation or repayment of an existing housing loan. The maximum LTV ratio should be 70 %. A mortgage serves as a security. Pre-payments are allowed and without any additional charges.
Banks provided the following feedback to the team:

Banks view CSSH as a product to expand their client base and to attract long-term funding. They suggest that 80 – 90 % of the funds will be used for home improvement loans.[84] Due to the still rising property prices in the country (especially in Yerevan), a use for home purchase or construction is unlikely.

Potential customers would derive from low and middle-income groups that face difficulties accessing credit. However, this group must still possess a regular income in order to afford regular saving in-

[81] The interest rates on the savings reflect current market conditions during the fieldwork. They should be finally set once a bank decides on the introduction of the product.

[82] The team recommends that banks should try to offer longer terms in order to attract long-term savings. To start with a two year saving period, however, may serve as an adequate tool to promote the product in the beginning so that customers get used to regular saving payments.

[83] It is up the bank whether it will include the interests accumulated during the savings period into the savings amount. In this case, the customer would achieve a quicker allocation of the CSSH-loan.

[84] Co-financing with a regular mortgage loan is currently not regarded as an option by the banks. This feature is common in Germany and Austria.

stalments. In this context, the public employee sector may be an interesting target group for CSSH. It is not of importance whether the income consists of official or legal but unreported sources.[85]

Banks would prefer to start the scheme with a multiplier of 1 and switch to higher multipliers at a later stage when they will have gathered more experience with the product. They consider a waiting period as an obstacle to sell this product.

According to the banks, the success of this product depends on a quick availability of the loan after the completion of the savings period and a proper management of the savings. Therefore, regulation and supervision of the CSSH seems desirable. They agreed on that these functions could be fulfilled by CBA. They confirmed that CBA has built up a strong reputation in the banking community as well as in the public. Its involvement would be perceived as a strong assistance in guaranteeing the stability of the system.

Banks also see the need for more marketing efforts in order to increase the public interest in the CSSH products. Further requirements encompass specific software in order to process a considerable number of small contracts.

Banks agree on that the savings period serves as a pre-screening instrument of future reliable borrowers. In addition, CSSH could help establish a closer relationship with the client. They also express their preference for an open system since the management of liquidity risk and interest rate risk appears less challenging.

A4.5 Recommended input on regulation on CSSH

The following are general principles of CSSH regulation. Specific provisions would be drafted after design of the appropriate system for the Armenian context:

1. Identification of supervisory body: this role should be allocated to CBA, which should also be responsible for approval of new contract conditions.

2. The supervisory body (CBA) should monitor the CSSH and its executing banks as well as the terms of contract: approval of new contract terms should comprise saving terms, allocation terms, loan terms, interest rates etc. The supervisor should verify whether the banks have sufficient capital. Furthermore, monthly or quarterly reporting of activity and the liquidity position should be reported to the regulatory institution.[86] The supervisory body should be entitled to:
   - Enforce regulations
   - Conduct on-site inspections
   - Review proposed modifications to CSSH standard contracts
   - Set or review allocation rules of CSSH institutions
   - Discipline CSSH managers
   - Deny or revoke an operating license

3. Reporting and auditing standards

[85] A further component could be remittances.
[86] A liquidity model of the CSSH should be designed, which should be run on at least a quarterly basis by the regulatory body.

- Separate disclosure of balance sheet and profit and loss statement
- Periodic liquidity status reporting
- Approval of new tariffs or product lines
- Approval of loan transfer to other management
- Rules for transfer of contract portfolio

Although liquidity risk is higher in a closed system than in an open one, regulation should also pay attention to this type of risk. In addition, careful supervision of the CSSH institution's risk management practices is desirable.

The team also recommends a flexible contract management: CSSH-institutions should be allowed to modify the conditions of the contract for new entrants into the system. However, these modifications should not affect existing contracts. Otherwise, the confidence into the system and the institution could be severely damaged.

ANNEX 5

Establishment of Training Needs and an Appropriate Institutional Home

The establishment of an organized and systematic approach to bank and financial services professionalization is slowly arising. To date, special training courses in housing have not existed. The main provider of bank training courses are the CBA training centre and Financial Banking College Foundation (FBCF).

The team believes that with the risks and developments in the banking sector and in housing finance in particular bound to emerge in the next years, all lenders would benefit from a more coordinated approach to technical, financial and management training.

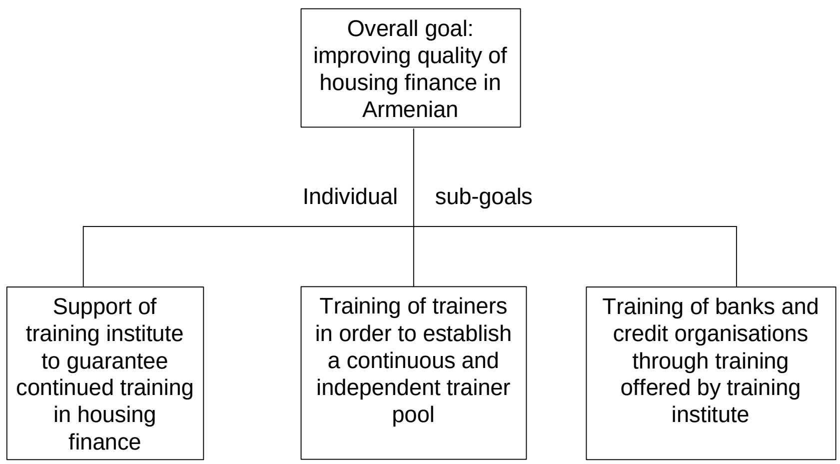
Due to the particularities of housing finance products, a special training need in this area is likely to materialize even stronger the more financial institutions will decide to enter into this market segment. They are expected to express a desire to better understand the risks implied and the prerequisites for sound risk management and successful product development strategies.

The objective of this Annex is first to analyze the training needs of the banks in housing finance. The second part concentrates on the assessment of an appropriate training institute which will be dedicated the task to develop and conduct a housing finance training programme.

A5.1 Identification of training needs in housing finance

Training can be defined as the process to convey knowledge of a certain subject in an organized and structured manner. It encompasses both theoretical components and practical elements (e.g. case studies). At the end of the training, the participants should have acquired certain know-how in a specific area or topic (e.g. housing finance).

Chart A5.1: Objectives of Training in Housing Finance



Source: Roy

Chart A5.1 illustrates the individual objectives of training. The training programs will assist the financial institutions in providing better service to their customers and improving the risk management of their mortgage portfolios. In addition, better-trained staff is likely to sell more products, thus generating higher profits. As a result, the risk in the whole financial sector will be improved and be more resilient to macroeconomic shocks.

The team recommends that a training concept should comprise the following elements:

- An institution should be in charge of the training courses so that training can be offered on a sustainable basis. This institute should meet certain standards and dispose of appropriate equipment to facilitate the learning process.
- A concept should emphasis the training of trainers (best local) so that the programs become independent of external help and the training institute is able to ensure its continuity.
- The training should serve to qualify staff to do a better job and provide a better service to the customers. Therefore, it should focus on practical experiences, case studies and interactive teaching. Moreover, it should adapt to changing needs of the financial community.

The team believes that courses should end with a certificate for which the participants must pass an exam. This certificate could be used to establish qualifying standards for bank employees who want to work in the area of mortgage lending, thus further underlining the efforts of implementing MQS among the financial community. In addition, it would serve as motivator for the participants of the course.

According to the team’s view this course can be organized in several modules but in a fixed sequence. Otherwise, participants may face difficulties in understanding the topic because of the lack the prior knowledge.

A5.2 Training in housing finance for banks

Currently, most of the banks do not offer internal training to their staff. Typically, new employees are trained on the job i.e. a colleague explains them their responsibilities and how tasks are to be performed. Only two banks reported to the team that new employees receive introductory courses. Those banks, which offer internal training to their staff, have also an internal evaluation system that helps identify training needs. Typically, the human resources department is involved in this task.

To date, only few banks have co-operated with a training institute to train staff. One bank has an own training center. However, it does not offer training in housing finance.
The team identified training needs in the following areas

- General overview of housing finance systems and funding mechanisms of mortgage loans in other countries. Banks reported to the team that they wanted to learn more about forms and methods of residential lending in developed countries and transition countries as well as funding mechanisms (contractual savings schemes for housing, mortgage bonds, mortgage backed securities), housing market dynamics etc.
- Mortgage instruments. In this context, the studying of different types of loan instruments was also mentioned (i.e. fixed rated mortgage, adjusted rated mortgages etc). They should be discussed from the viewpoint of the application, problems or advantages.
- Understanding of the legal conditions and relevant laws in mortgage lending. There is strong desire to better gauge legal consequences and the underlying legal framework in mortgage lending (in particular the concept of a mortgage, transfer to ownership, contractual procedures, foreclosure etc.)
- Analysis of creditworthiness of customers. Banks ask for concepts and procedures of underwriting, and its components related to the evaluation of borrower's paying capacity (in particular calculation of the ability to repay), and availability of fund for down payment and transaction cost. In addition, they expressed a need to learn more about evaluation of the collateral property and title verification.
- Risk management of mortgage loan portfolios. Banks expressed an interest in international approaches of risk management techniques in mortgage lending: how do they address credit risk, interest rate risk, liquidity risk, prepayment risk, exchange rate risk, inflation risks? In this context, some banks also asked for models for evaluation credit risk and interest rate risk (e.g. gap analysis etc.).
- Pricing mortgage loans. Banks want to learn more about cost of funds, operating cost, risk spread, and profit, but also methods for calculating bank's operating cost and for annual planning revenues from lending activities.
- Delinquency management. Topics of interest are how to better identify delinquent borrowers, measures to help borrowers in arrears, court foreclosures procedures etc.
- Communication with the customers. Banks also expressed a need for improving the communication skills of their staff. Areas of interest would be conducting interviews with customers (over the counter and on the phone), questioning techniques, conflict-solving mechanisms etc.
- Planning mortgage operations in a bank. Those banks which have not yet entered the mortgage market especially ask for basic methodological approaches to business planning, main components and techniques in drafting the business plan for a mortgage department. In this regard, software programs for mortgage operations are also of interest to the banks.

The teams underlines that the planned course should not be just mere theoretical lectures. They should include practical training (wherever it is applicable). This objective can be achieved through case studies, simulations of counseling interviews (as an example) or adequate software models.

The banks reported to the team that an ideal length of such a course would be about one week. To date, evening or weekend courses for bank employees have not been tested. The team recommends checking whether this alternative could be interesting for the banks especially if longer training periods are envisaged. Most of the banks would be also prepared to pay for such a course provided that professionals are in charge of the training.

The team believes that one week is too short to get across such a complex issue. Ideally, one module should be not longer than one week to avoid long absences of the employees which would reduce the banks' willingness to release employees from work.

A5.3 Selection of suitable training institute

During the fieldwork, the team interviewed the Financial Banking College Foundation (FBCF), the American University of Armenia (AUA) and CBA Training Centre (CBATC). In addition, the team interviewed the banks about their experiences with these institutions.

FBCF was established in 1998 by CBA, Ministry of Education and Science and UAB. It is specialized in the following areas:

- Vocational education and training based on German dual system of education for banking and finance.[87]
- Training bank services. FBCF organises general and specialised seminars and training for banks, microfinance institutions and other financial institutions according to their individual needs and requirements.
- Human resources and career development center which is aimed at providing information about vacant positions in banks and other financial organizations.

FCBF informed the team that about 160 students are enrolled at FCBF's courses. On average, up to 400 employees are trained through individual courses (training bank services). The core faculty consists of 34 to 40 trainers who are assisted by FCBF staff.

Rooms are well equipped with modern presentation facilities (beamer, computer etc.). FCBF also possesses a virtual bank to simulate all possible bank transactions (work at the cash desk, customer advice, accounting operations etc.).

Typically, trainers are practitioners. At bank training services, they teach all banking related topics such as banking legislation, accounting in banks, financial management, foreign exchange operations, analysis of financial reports, letter of credits, credit operations etc. New courses will be developed according to the demand of the banks. Questionnaires are sent to the banks in order to identify their needs. Main customers of FCBF are HSBC, CBA, Armeconombank and Finca.

After every course, participants have the opportunity to give feedback to the teacher. Other forms of review do not exist.

[87] GTZ provided assistance in setting up this training programme.

At present, FCBF is involved together with UAB and the Association of Banks of Georgia in a project called “institutional development of bank association in Armenia and Georgia”.[88] The project is aimed at increasing the institutional capacity of banking associations in the Caucasus region, improving networking among banking associations both at regional and international level. In addition, it should provide a platform for training and consultancy services and increased exchange of information among banks in the Caucasus and beyond.

CBA Training Centre (CBATC) was established in 1994 with the assistance of USAID.[89] As a division of CBA, its main mission is to provide training to CBA staff and commercial banks. Per year, CBATC trains about 700 to 800 participants thereof the majority is from CBA.

The faculty consists of 20 trainers (mainly CBA staff) and practitioners. It is not clear to the team that the instructors who are with CBA have gained any practical banking experience. The selection of the trainer depends on the subject of the individual course. CBATC requires from the trainers a university degree. In some cases CBATC use the network of CBA to attract international experts. However, the course programme does not mention anyone.

CBATC possesses two large classrooms and one computer room. The necessary equipment for teaching is available. Typically, a course is five days long with four hours of teaching per day. Longer courses are available on demand. Participants will be charged a fee, albeit symbolic.

Every year CBATC publishes a course programme that covers several aspects of banking and finance. CBATC currently does not offer any course in housing finance. The course programme made available to the team, however, does not indicate whether mortgage loans are taken on during course on credit risk management. Mortgage lending is only mentioned in the course “management of problematic credit”.

The course programme does not follow a given curriculum. It is a sequence of individual course, which do not seem to be interrelated.[90] The overall course description appears to be mainly theoretical. Practical training parts are not highlighted. Only some courses refer to case studies or active involvement of participants. It is also not evident either whether the courses take into consideration the latest development. For example in the audit/accounting course, no reference is made to necessary changes due to the new Basle II regulations.

At the end of a course, participants are awarded a certificate. It is considered a strong point in job applications. However, CBATC does not track participants’ career development, nor offers any assistance in finding a job. In public, courses are viewed as pre-selection to become an employee of CBA.

Participants have at the end of a course the opportunity to evaluate the course. Further evaluation of the teaching staff does not exist.

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88 This project is financed by Eurasia Foundation South Caucasus Co-operation Programme.

89 USAID informed the team that further advise to CBATC is not planned for the near future.

90 For example there are no introductory courses in banking and finance.

The American University of Armenia (AUA) was established in 1991 with the assistance of USAID, the Armenian General Benevolent Union and the University of California. As a private university, it does not benefit from any government assistance.

Currently, about 250 students are enrolled. The number of employees of AUA is 34. In addition, AUA affiliates also with outside lectures and practitioners where deemed necessary.

AUA'a academic programme provides graduate education in Business and Management, Industrial engineering, computer and information science, political science, health science, law and comparative legal studies. A considerable focus exists on English language courses. Professors select the necessary course material. They are also responsible for the organization of the course.

There are no specific courses in banking and finance. According to AUA, contacts into the banking community are not common. There were only one course for CBA in use of software programs and another course for HSBC in communication. AUA indicated that they would be capable of organizing courses. They could be also arranged outside Yerevan provided that there is demand.

AUA has an excellent reputation in the business community (especially their English courses). However, fees are considerably high. AUA runs an alumni office. This office does not help graduates to find a job. However, job offers are sent via e-mail to graduates.

AUA does not have any contacts to universities abroad beside the University of California.

Table A5.1 summarizes the results of the interviews with the training institutes. The criteria enumerated form the basis for the recommendation which institution seems appropriate to the team to conduct the training courses in housing finance.

Table A5.1: Comparison of Armenian training facilities

	Financial Banking College Foundation	**CBA Training Centre**	**American University of Armenia**
A. The faculty			
Equipment of rooms	+++	+++	+++
Course programme – content	Covers all banking aspects	Covers all banking aspects	Has not focus on banking
Education of teaching staff	Mainly practitioners	CBA staff and practitioners	Professors, lecturers
B. Quality of teaching			
Criteria for design of course programme	Oriented toward demand of banks	Takes into consideration needs of banks	Not clear except for English course which are focused on demand
Involvement of practitioners	+++	+	+
Approach to courses	Strong practical	Weak practical, predominant focus on theory	Strong theoretical background
Review of course content in order to guarantee regular updates	+++	++	++
Quality control of teaching staff	+	++	++

Legend: +++ = described performance from low (+) to strong (+++)
Source: Roy

The institutions most known to the financial community are FBCF and CBATC. AUA has not established a reputation for education in banking and finance. It seems that FBCF has established a solid reputation for its vocational training programme and tailor-made programmes. Although CBATC has operated in the market for a longer period than FCBF, it has not managed to establish a wide awareness among banks and financial institutions. However, some banks do not seem to have a particular knowledge of the three institutions at all which may be due to the low attention banks have paid to training so far.

The team believes that the strong practical approach of FBCF would make it an eligible candidate to become the institution to be in charge of arranging the training in housing finance. It is the only institution that possesses a virtual bank. It would offer a good platform for the combination of practical and theoretical learning. The approach of CBATC is more focused on theoretical knowledge and to a lesser extent practical issues. In comparison to CBATC, FBCF would be also a neutral platform, thus raising the banks' willingness to send staff to the training.[91]

AUA appears to the team too theoretical and too far from the banking community. They may also lack the interest to regularly adopt the programme to changing needs of the banks and credit organizations.

In order to become fully eligible, the team recommends that FCBF should meet the following requirements:

- FCBF should implement a trainers of trainer programme in order to continue the programme when is has been put into practice.
- FCBF should make further investments into a library/resource center that guarantees a constant update of information both for the students and for the teaching faculty.
- FCBF should strengthen its quality assurance management and training following monitoring capacity.
- FCBF should seek an authorisation to issue officially recognised certificates in order to establish standards in banking and financial education. Such standards may also be valuable for other training course in other fields (e.g. insurance products).
- FCBF should strengthen its links to the banking community and to international training institutes (e.g. European Bank Training Network) and international operating banks in order to guarantee regular up dates of the training program.

After the end of introduction of the training course, they responsible consultant should assess FCBF's progress and capabilities in order to ensure the continued success of the programme and the institution which provides it to the financial community.

[91] Centralising training at CBA risks that banks may consider this offer as a mere policy measure.

ANNEX 6

Capital Markets, Secondary Market Operators, and the Growth of Housing Finance[92]

A6.1 Introduction

There has been much discussion in many countries in the early stages of developing a housing finance system, including Armenia, about the role of secondary markets in that process. Because of this, the World Bank published a Working Paper in August of 2004, entitled “Mortgage Securities in Emerging Markets” from its Financial Sector Operations and Policy Department.[93] One of its summary conclusions was:

“The track record of mortgage securities issuance in emerging markets has been spotty. Although there have been some clear success stories, there have been even more unsuccessful attempts. In many cases, despite a strong theoretical rationale for their introduction, the timing has not been right. In some cases, the primary market infrastructure was not sufficiently advanced and in others, the legal/regulatory infrastructure was not well developed. And in other cases, there was simply no demand for the tool by its supposed beneficiaries.”

This annex tries to put these sorts of conclusions into context for policy makers in Armenia. It reviews the major ways that mortgage securities can be used to access funding from the capital market, and concludes that only one or two are likely to succeed in the medium term. On the other hand, the growth of housing finance in Armenia in the medium term is probably not dependent on the appearance of a secondary market operator nor even on other forms of access to a well functioning capital market.

A6.2 Why Use Capital Markets?

Why would one bother, when funding housing finance, to look beyond what most countries already have, specifically, deposits in the banking system, to what many countries do not have, specifically, well functioning capital markets and mortgage-related financial instruments for tapping those capital markets? The usual short answer to this question, namely that long-term loans require long-term funding, is not a sufficient one.[94]

The fact is that capital markets are not the major source for funding housing loans in most countries. Where they are important, there is usually some historical factor or policy distortion that explains the shift. Aside from a few countries with such factors, including the US, Scandinavia and Chile, most long-term mortgages are financed out of short- and medium-term bank deposits. Even in Germany, the home of the famous Pfandbriefe, the bulk of the loans are financed out of bank deposits.

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92 This document is partly based on a presentation by Douglas Diamond at the AIRPG Workshop on Financial Sector Development, 29 May 2005, in Tsakhkadzor.

93 Chiquier, Loic; Olivier Hassler; and Michael Lea, “Mortgage Securities in Emerging Markets,” World Bank Policy Research Working Paper 3370, August 2004.

94 See also Footnote 5 on p. 6, op. cit., which reads in part: “There is a degree of speciousness to this argument, however. In most countries, depository institutions have a core of long-term deposits. Although the contracts may be short term, they are typically rolled over and can fund long-term housing loans. An institution can provide a significant percentage of its loans for housing while accepting only a modest amount of liquidity risk.”

How is this? The very short answer is that the deposit base in most banks in most economically and politically mature countries already exhibits the key feature of long-term funding, namely, stability. The chances that a significant portion of those deposits will leave a given bank in the next 12 months is very low, except, of course, in the case of a crisis. But when a banking crisis comes, it is usually the case that it is due to the poor quality of other, usually shorter-term, credits that has undermined the capital of the bank. Moreover, rarely does the ultimate fate of the bank or a banking system depend on whether or not 10-20% of its assets are in long-term residential mortgages and whether those loans are financed out of deposits or bonds.

Of course, Armenia is not economically and politically mature and is in a relatively volatile geopolitical neighborhood. These considerations matter. Moreover, it is true that wholesale deposits and even capital markets are an important supplement to retail deposits in many countries.

Similar questions must be asked about the perspective of long-term investors. Their interest in long-term investments depends on what the structure of their liabilities is. Just because they may have a stable pool of funds, if they have no fixed long-term commitments, e.g., to fixed nominal or real pensions, then their allocation of funds to long-term assets, especially illiquid ones, will depend heavily on the premium they can get for doing so. In any case, it is also worth pointing out that even in countries where such investors do provide much of the funding for housing, it is sometimes through wholesale deposits, not long-term bonds.

Does this mean there is no role for capital market funding? The most accurate statement in most countries is that it is useful to have such access available as an option, eventually. It may even be a requirement in Armenia if the banking sector remains weak. However, access to capital market funding is not, in general, a requirement for the growth of housing finance.

In thinking about this issue for Armenia, the key question is whether it is likely for the capital markets to develop extensively enough, both on the supply and the demand side, to support a major flow of funds into mortgages and <u>yet</u> the banking sector does not also deepen enough to support a large enough and stable enough deposit base to finance most if not all of the mortgage stock.

Such an outcome is possible. One possible example is that of Kazakhstan where the peculiar economic dynamics there has created a large pool of institutional investment funds, out of proportion with the size of the banking sector. Chile, with its large private pension funds, is another possible exception. In both cases, it is not so much the weakness of the banking sector that has driven the shift toward capital market funding, but rather the huge supply of institutionally invested funds.

The general point is that there should be some clear rationale, aside from a perceived requirement to match maturities, before special efforts, including the creation of a secondary market operator or special incentives, are introduced into a financial system to actively push lenders to use funds from the capital markets.

A6.3 Types of Capital Market Funding

There are six main ways to use the capital markets to fund mortgages. These are:

(1) Lender-based corporate bonds
(2) Lender-based covered mortgage bonds
(3) Lender-based securitizations
(4) Corporate bonds issued by a liquidity facility
(5) Mortgage bonds issued by a centralized mortgage bank
(6) Securitizations performed by a conduit

Corporate Bonds. The first approach does not involve any type of “mortgage security.” Banks can and do issue unsecured corporate debt in order to lengthen their maturity structure and diversify their funding sources. In countries without a tradition of covered mortgage bonds, including the US, UK, and some transition countries, this is common. It has already happened in a similar emerging market such as Ukraine and is generally easier to organize than the issuance of any form of mortgage security.

Covered Mortgage Bonds. On the other hand, the advantages of the second approach, covered mortgage bonds, over unsecured corporate debt are significant. A covered mortgage bond is, fundamentally, a standard corporate bond embellished with high quality collateral. Through a proper statutory basis, including strict segregation in case of bankruptcy and some degree of extra supervision, the banks in a country can offer investors a substantially stronger claim on high quality assets in case of default. And, depending on the simplicity of the statutes, they can do so rather cheaply.

The method for creating such mortgage-secured bonds goes back at least 150 years. They originally were only the issuances of mortgage banks, which are legally distinct and specialized mortgage lenders (prominent in Germany and Scandinavia). Mortgage banks are usually restricted to making only safe mortgages and taking no deposits nor taking on risks such as interest rate, prepayment, or currency risks. Their activities are monitored by an independent third party for enforcement of those restrictions. Moreover, usually the mortgage portfolio of the entity is directly pledged and preferentially accessible to bondholders in case of insolvency.

The same structure could have been adopted by commercial banks as well. But there is an additional advantage to the investor when the bond is issued by a narrowly chartered mortgage bank, namely that the bank will not expose itself to unusual risks in the future. Although all types of banks are closely regulated and supervised, a universal bank can, within its regulatory freedom, adopt more risky business practices tomorrow and end up with a downgraded credit rating. Thus, a long-term investor may prefer debt backed by both safe mortgages and the more rigid structure of a mortgage bank.

However, mortgage banking as traditionally pursued has a significant drawback. Mortgage banks traditionally had to rely entirely on bond issuances for funding, although deposit-based funding is usually cheaper. This advantage of deposit-based funding may be because of subsidized deposit insurance or simply because commercial banks are able to transform a large pool of unstable short-term funds into a relatively stable source of long-term funding without paying the individual savers a premium for locking up their funds.

Recently, however, there has appeared two modified forms of "mortgage banking." One was adopted in the Czech and Slovak Republics, where the "mortgage banks" are wholly owned subsidiaries of commercial banks and can be funded either by the mother bank or by bond issuances. The bonds retain the advantage of direct collateralization by all the mortgages in the mortgage bank, but the mother bank can manage its funding activities from an overall portfolio and market perspective.

A more modern style of mortgage bond issuance is now being adopted elsewhere in Europe. A good example is Spain. The bonds are issued by an ordinary bank, but the evaluation and pledging of the mortgage collateral is strictly monitored by an independent third party supervised by the central bank. It is likely that this new style of mortgage bond is the most desirable from the viewpoint of Armenian banks, as it avoids almost all of the costs of setting up and operating a new financial institution or even a subsidiary.

The most popular mortgage security in Spain is the *cedula hipotecaria* or "mortgage certificate." The quality of the mortgage loans and the collateralization process used to create a *cedula* is partly the choice of the issuer, driven by the desire for a higher credit rating. If the issuer wants a better rating, it uses better loans, offers more collateral, and has more restrictions. There is a relative low level of statutory restrictions on the process. And it is just as easy to issue such bonds with floating rates or call features as for any corporate bond.

Mortgage Securitization. Spain and many other countries have also been developing the legal and financial infrastructure to support the securitization of mortgages. Mortgage securitization, and asset-backed securitization (ABS) in general, involves the sale of the assets to a special legal entity that is bankruptcy remote from the lender and is essentially almost a non-entity or invisible as far as taxes and operating autonomy. The cash flows that come from these assets pass through this entity and are distributed to the owners of the securities issued by this entity in ways that are predetermined at the time of initial structuring.

Securitization has can have three functional advantages over retaining ownership of a loan and issuing a bond.

(1) It may permit the lending entity to shed some or all of the credit risk[95] arising from the loans, thereby reducing its need for capital.
(2) It eliminates liquidity or funding risk[96] by securing funding for the life of the loan.
(3) It allows for the allocation of these and other financial risks, such as interest rate risk[97], prepayment risk[98] or currency risk, in almost any way desired.

This third facet of securitization can be very useful because investors may have very different preferences with respect to these various risks. When an investor actually buys a loan without recourse to the originator, it is taking all of these risks. If the loan is securitized, different investors can take different parts of the risk package for a lower total cost.

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[95] The risk of loss through non-payment on the loan.

[96] The risk that the lender will not be able to find or renew funding over the life of the loan.

[97] The risk that increases in the cost of funds will not be matched by changes in the rate on the loan.

[98] The risk that early payments on the loan will leave the lender with funds which it can not reinvest for as good a yield and which it can not use to repay high cost funding early.

If most financial risks are in fact shifted elsewhere, then lenders can focus on delivering the customer services involved in mortgage lending, primarily origination and servicing. This also can be a major advantage, because it leaves the lender only to have to worry about the actual business of making and collecting on the loans.

But the process of securitizing assets is significantly more expensive than issuing a corporate bond or a mortgage bond. So it will be of interest only when the advantages to shifting risks outweigh the additional costs.

When might that be the case? There are three major situations, as follows:

1. *When there are business advantages to separating the lending business from the funding business.* Examples include lower costs of marketing, origination and servicing if done through a system not tied into the collection of bank deposits and provision of other banking services. This is the main reason that securitization is used in places such as the UK, Australia, and South Africa. Mexico may be a good example in the developing world.
2. *When there are significant interest rate or prepayment risks that cannot easily be dealt with by the lender.* This is part of the reason why securitization is so common in the US. The strong preference for loans with rates fixed for up to 30 years cannot be met with bank deposits with rates fixed for at most 5 years. On the other hand, in Canada, where borrowers are willing to have their rates adjusted every 1-5 years, relatively little securitization goes on, despite the presence of a state-guaranteed securitization conduit.

3. *When there is regulatory arbitrage possible.* This occurs when the return on capital required to hold these loans is lower for investors than for the lender, usually because of inappropriate regulatory requirements. Example: If the risk weight of mortgages at banks is set the same as for corporate loans, and is substantially more than the real risks, and investors can be assured as to the real risks, then the transfer of credit risk to investors will become attractive. To take another example, if bank regulators let banks keep less capital against mortgage loans when the bank securitizes them yet takes back the bulk of the credit risk by holding the equity tranche, then it may also pay to securitize.

In general, mortgage securitization is a problematic way of funding mortgages. This is not only because it is legally and procedurally cumbersome and the securities tend to be less liquid. It also because its use assumes that there are investors who are better than the lender at handling credit risk and interest rate risk. After all, ordinary bonds can remove most liquidity risk, so there must be some advantage to transferring the other risks as well through securitization, from the loan originator to an investor. That is rarely the case in emerging markets.

It is important to recognize that securitization does not require a state-sponsored conduit such as Fannie Mae in the US. If the economics of securitization are compelling, individual lenders can pursue it. This option should be supported under local laws. But it is a separate question as to whether a second-tier market operator is appropriate, sponsored by the state to buy and securitize mortgage loans.

Liquidity Facility. What covered mortgage bonds can do for a single lender, a liquidity facility does for a group of lenders. It involves lenders bringing their mortgages to the facility and either using them as collateral or executing a repo in order to obtain medium-term funding. Note that it does not include the permanent sale of the loans. The facility then turns around and issues standard corporate bonds, but the bonds effectively have the credit risk characteristics of Spanish-style mortgage certificates, determined mostly by the presence of over-collateralization.

In principle, this system addresses the most worrisome aspect of banks making long-term mortgages, namely, the short-term nature of their funding. The ability to quickly, easily, and cheaply use those mortgage assets as collateral helps to stabilize the funding base.

Of course, the liquidity facility itself has to have ready access to funding in order to play its role. That is one of the reasons why they have all been government-sponsored initially and generally stay that way. However, they are always off the books of the government, with independent capital and usually with some or all private ownership (usually by the banking sector).

Economically, a liquidity facility is effectively a cooperative for issuing mortgage bonds for the banking sector. Legally, it issues unsecured corporate debt, but this debt is as safe as mortgage bonds because it is backed by segregated mortgage collateral provided by the lenders who seek refinance. Financially, it will be a very low risk entity if it leaves the credit risks with the lenders, deals only with reasonably sound banks, does not permanently buy the loans, does its own asset-liability management carefully, and has a reasonable amount of capital of its own.

Centralized mortgage bank. Unfortunately, some confusion has entered into the discussion of liquidity facilities in the last few years. In 2001, Kazakhstan created an institution, the Kazakhstan Mortgage Company, which provides permanent refinance for lenders. Russia did this earlier in the form of the Russian Agency for Mortgage Lending. This is not "liquidity" in the sense of temporary funding, but permanent funding. This effectively means that the long-term funding risks, primarily interest rate risks, now belong to the facility. That makes the entity into a German-style mortgage bank, with all of the difficulties that such a structure brings with respect to trying to provide bond funding that matches the interest rate structure and options embedded in the loans.

That is why the Kazakhstan Mortgage Company is best labeled a "centralized mortgage bank" (although there is an important distinction in that it leaves the credit risk with the lenders). It is also not so well known that Fannie Mae has converted itself mostly into a centralized mortgage bank instead of a securitization conduit. And that is the ultimate source of the scandals that have recently involved Fannie Mae.[99] Fannie Mae decided it could make more money by keeping and managing the funding risks of mortgages than by passing them on to investors, so, without really asking anyone, it decided to switch to being more of a centralized mortgage bank rather than a conduit. In so doing, it has taken on large amounts of additional risk, and leaned ever more heavily on its implicit guarantee by the US government.

State-sponsored securitization conduit. This mention of Fannie Mae brings us to the final item on the list, the state-sponsored securitization conduit. This is like a collective for the issuance of mortgage securitizations. Before about 1980, Fannie Mae was also a centralized mortgage bank, but then it almost went bankrupt and thereafter it focused (until recently, as noted above) on passing all of the funding risks on to investors through securitization. More recently, a number of other countries, including Malaysia, Hong Kong, Korea, and Trinidad and Tobago, have created windows where lenders could sell their loans to a state-sponsored entity that would then securitize them.

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[99] The specific source of the scandals was that Fannie Mae mis-stated its earnings and net worth. These mis-statements occurred because of the complex financial arrangements that Fannie Mae was making to manage the risk associated with being a mortgage bank holding long-term fixed-rate loans. This would not have been an issue if the company had been selling off these risks through securitization.

According to the argument above, there are only three bases for viability of such an institution. So far, that observation has been supported with respect to these countries. Because those peculiar circumstances do not apply, these newer entities are doing relatively little securitization business aside from special circumstances, such as securitizing loans made by state-entities without access to funding sources such as deposits.

A6.4 What Role in Armenia?

What are the prospects in Armenia for these sorts of ways of using the capital markets to fund mortgages? Of course, the first requirement is that there be a capital market open to the private sector. That exists to a very limited extent today in Armenia. The state is able to find ready buyers for its sovereign debt, primarily banks and insurance companies. If and when pension funds or investment funds enter the market, they would also be natural buyers of such securities. Already, there is a relatively long-term to state issuances (7-10 years) and active secondary market in these securities (averaging 2-3 trades per week in early 2005).

Usually, the next most likely issuer of bonds after the state are major companies with strong fundamentals and transparent governance. This has not happened yet in Armenia, perhaps because there are no such companies. However, often among the first issuers are banks that are financially strong and looking to expand, selling their bonds to banks that are have more funds that ambitious plans for lending. In that sense, it is like a long-term interbank lending operation, with the advantage that the loan is, in principle, saleable. But it is not clear that such a situation exists in the banking sector currently.

Such issuances can be evaluated on their merits relative to state debt and priced accordingly. This is facilitated by having the issuances rated by an internationally recognized entity. However, the small scale of the Armenian market will preclude such an entity being viable in even the medium term and thus credit risks will have to be evaluated by each potential investor. This situation will make it difficult to issue debt with anything other than very simple and low risk characteristics.

This situation suggests that it may be easier to issue a mortgage bond than a plain unsecured corporate bank bond. This is not just saying that such a bond will be lower risk; that is to be expected of a mortgage bond. Rather, it is to emphasize that even major banks may not present simple enough risk profiles to be appraised accurately in the market, and the introduction of strong mortgage collateral, with a verifiable risk profile and record, may help a bank bond to reach a level of certainty about its riskiness so that other banks will be willing to evaluate it.

The issuance of a mortgage bond will require the passage of a law on mortgage securities that provides parameters for that security that are both relatively tractable and low-cost from the point of view of the issuer, yet reliable for investors in an untested market.

Until either a mortgage bond or even a corporate bank bond becomes viable (i.e., issuance at an all-in cost that is not much higher than the effective cost of term deposits), banks will probably grow their mortgage book based on reliance on term deposits. As noted above, such a funding base is usually stable enough to support long-term lending on the order of 10-20% of a bank's assets. If there appears sufficient investor interest, e.g., through the growth of pension assets, the most likely next step would be for a strong bank with a large portfolio to issue a mortgage bond with heavy over-collateralization with its large mortgage portfolio.

Another important potential element in the market could be the Universal Credit Organizations (UCOs) that are active lenders. They do not have the option of using deposits to fund the growth in their portfolios. They are starting off with equity capital from the sponsors, and this equity base plus simple business model could be strong enough to support the issuance of mortgage bonds.

The UCOs may have two other options. One is to tap the market among the diaspora for relatively safe offshore debt investment in Armenia. In that case, the perceived credit risk may be determined by the strength of the portfolio and the perception of the sponsor and its backing of the institution.

Another option may be to seek to use the securitization portion of a comprehensive mortgage securities law. This would be greatly facilitated if there were a reliable insurance company (or foreign development entity) that would fully or partially guarantee the cash flows. However, it may be very difficult to sell such a securitization to Armenian investors, because of their complexity, long-term, and low liquidity. It may be simpler to use offshore securitization laws and sell the securities to the diaspora market.

Clearly, all of these routes to the capital market have their problems. Because of this, it may become attractive to smooth the road through creation of a "secondary market operator". This could take the shape of any of the three options noted above, a liquidity facility, a centralized mortgage bank, or a securitization conduit.

A6.5 Which Kind of Operator?

Each kind of operator presents different profiles with respects to the costs, risks to the state, and attractiveness of its securities.

Based on the discussion above, it is considered to be unlikely that mortgage securitization will be an inexpensive and efficient mode of fund raising. It does offer the advantage that, in principle, the bank would no longer have to hold capital against those loans. But the credit risk must reside somewhere, and it is unlikely that investors will want to be exposed to it. Even if an insurance company is found to take on the credit risk (or a separate state-sponsored company is set up to do so), investors will find that owning slices of specific pools of mortgages requires extensive historical information, careful analysis of that information, a willingness to hold the securities for long periods (perhaps until maturity of the mortgage loans), and difficulty in getting a fair price in the secondary resale market.

That leaves a choice between an entity that provides permanent refinance (a centralized mortgage bank) and one that provides temporary refinance (a liquidity facility). Both issue bonds that are backed by claims to specific pools of mortgages. But there are two major differences.

With respect to credit risk, the mortgage bank would likely require that lenders selling it loans would have to buy back those loans in case of default by borrowers. This means that the lenders have to hold capital against that risk. But that does not mean that there is no possibility of the mortgage bank taking a loss on loans. It is still possible that a lender will fail, in which case there is no counter party taking on the credit risk. In fact, there is likely to be some correlation between poor quality loans being originated by a lender that subsequently fails.

All other risks (liquidity, interest rate, prepayment) are fully transferred to the centralized mortgage bank. The size of these depends on the nature of the loans. For example, if they have fixed rates, then the mortgage bank must worry about prepayment risk. The only way to deal with that would be to issue bonds that are callable. Investors will require a premium to hold such bonds and finding such investors will be difficult in a nascent market.

If the loans have rates that vary over time, the way that they vary will have to be exactly fixed in advance (i.e., against a benchmark), so that the mortgage bank can issue debt with rates that vary the same way. This will require that a benchmark rate be agreed upon in advance with the lenders. This would be difficult to do under current circumstances.

Even with an agreed and reliable benchmark, holding such loans and financing them with similar bonds can expose the mortgage bank to “basis risk,” namely, the risk that over time the spread that it must pay investors over that benchmark will change. If its asset portfolio is fixed with respect to that spread and the spread now changes on the liability side, the mortgage bank could bear losses.

It is true that lenders bear these same risks when they retain the loans in their portfolio. However, they can be more flexible in how they manage them, both by using non-standard benchmarks for resetting the rate on loans (e.g., their current market rate on new loans) and by managing the risks within a larger overall Asset-Liability framework, including different sources of funds and other types of assets. Moreover, the presence of significant risk in the portfolio of the mortgage bank will require that it be better capitalized and may also result in a higher spread on the bonds that it issues.

In contrast, a liquidity facility is in a simpler and lower risk business. Like the mortgage bank, it uses the loans as collateral to reduce its credit risk exposure. But if it does not buy the loans, it can (and usually does) require excess collateral, even though the lender is also guaranteeing repayment. For example, the liquidity facilities in the US, France, and Jordan require that a lender provide 25% more collateral than the amount of the refinance that it receives. This buffer amount makes these entities practically fail-safe, even if some of their counterparts, the lenders, fail.

In return for this collateral, the liquidity facility grants simple bullet loans to lenders, at rates that can be fixed or floating, depending on what the bond investors and lenders most want. The rates and even currencies on the loans do not have to mimic the rates on the bonds, since they are serving only as collateral and there is excess collateral. The liquidity facility does need to strictly match the rate and term structure of the loans (refinance) to lenders and the bonds sold to investors, but not in turn with the mortgage loans.

With credit risk reduced and funding risk eliminated, the overall risk profile of a liquidity facility should be significantly lower than that of a centralized mortgage bank. This should translate into lower spreads on the bonds of a liquidity facility, unless of course the mortgage bank has a very strong implicit state guarantee (as Fannie Mae does). This means that a liquidity facility is more likely to be viable, assuming that the capital market works well in differentiating these risks.

Moreover, this lower risk profile is more likely to be resistant to political pressures. If a liquidity facility is properly set up, with a very narrow charter and a mix of public and private governance, it should not be as easy to turn the institution to political purposes as it is with a centralized mortgage bank, where there is nothing to prevent risks being taken on that can not, or are not, properly managed. This issue of misdirection of such entities is the last topic.

A6.6 Distortion of Secondary Market Operators

There is a significant element of uncertainty involved in the creation of any state-sponsored secondary market operator. The problem is that, if such an entity is created as a parastatal agency, it will be subject to forces that may corrupt its purity. In other words, once an entity appears as an instrument of non-distortive or low-distortion policy, it tends to be utilized for more intrusive purposes.

There are three versions of this sort of problem. One is the Kazakhstan Mortgage Company (KMC) situation. It started functioning as a centralized mortgage bank in 2002, and was doing large amounts of business (some said that this was partly due to state pressure on lenders), and mostly, but not totally, in a low-risk manner.

Then the President of Kazakhstan decided to strengthen his popularity by setting up a large-scale non-market mortgage scheme. In order to deliver on this scheme in a timely fashion, he utilized a convenient institution, the KMC. But embedded within this program is a potentially high risk activity, making long-term fixed nominal rate mortgages. This simple step changed the KMC from a low-risk, potentially privatizable entity into a high risk, never privatizable entity requiring a state guarantee.

The same forces are coming into play in Ukraine as we speak. The Prime Minister, with an eye on the elections in 2006, has proposed channeling large sums with large risks through the State Mortgage Institution, an institution set up in December 2004 to serve as a low-risk liquidity facility. This will require a change in its corporate charter, but since it is 100% owned by the Council of Ministers, this can be done if the political will is present.

The second version of this form of moral hazard is where the entity fails to gain much business and pressures arise to introduce sufficient subsidy to make the high-profile state initiative a financial success. An example of this is the mortgage bank set up by the Hungarian state in 1997. It never even tried to do its initial business, credits for agriculture, because it was clearly not feasible, and was soon redirected to housing finance. But it could not do that profitably either, so then a subsidy was introduced.

Soon the subsidy grew larger and eventually was extended to other lenders, but only if they took the form of mortgage banks and issued mortgage bonds. Within a few years, enormous fiscal resources were, and still are, being directed to a truly wasteful system of running most of the mortgage sector through the mortgage bond market.[100]

Similarly, if Armenia creates a liquidity facility and it turns out not to be financially successful because banks do not want or need it, will it be granted more powers or subsidy?

The third version of this idea is when the state succeeds in privatizing the entity but does not fully remove itself, e.g., leaving some sort of implicit state guarantee. This is the Fannie Mae situation, and the downside of mixing state guarantees with private profit-making incentives has become

[100] See op cit., p. 28.

clear. The private owners redirected the institution toward riskier activities in an effort to expand profits, while relying on the implicit state guarantee to preserve the credit rating.

All three of these versions stand as a warning that getting the right balance of private sector protection from political abuse and public sector protection from private abuse is not easy. They serve as reminders of the risks of venturing down that path that should be weighed against the potential advantages.

A6.7 Conclusions

There are three significant conclusions that can be drawn from this overview of the role of capital markets in housing finance.

First, it is unlikely that lack of access to capital markets funding will slow down the growth of housing finance in Armenia, at least for the next 3-5 years or until the share of banking assets in long-term loans exceeds 10-20%. Even if, due to continued weakness of the financial sector, limitations to the banking sector cause a problem, it is not necessarily the case that capital markets will be in enough better condition to compensate.

Second, covered mortgage bonds are probably the most viable of the mortgage securities with which to launch such access to the capital markets.

Third, all secondary market operators have problems, including the extra costs involved in going through another institution. Moreover, all such state-sponsored institutions have the potential of being re-directed into a more distortionary mode of business. Of the three alternative types, a liquidity facility is the lowest risk and least likely to be misdirected.

The policy implication of these conclusions is that all actions over and beyond passing the legislation needed to use capital market instruments (a strong mortgage securities law) should be considered carefully. It is not to say that state intervention is never appropriate. It is to say that it should be clearly stated why it might be appropriate. For example, granting mortgage bonds a subsidy (e.g., making them tax-exempt) may be key to developing the capital markets for other users or for meeting the need of new institutional investors.

The inherent disadvantages should be weighed against these possible advantages. In particular, the actual ownership and control structure any state-sponsored secondary market operator needs to be carefully crafted to minimize the potential disadvantages.

ANNEX 7

LogFrame for Proposed Project

The LogFrame for the proposed project is an integral part of this report, but is only available as a separate document. It highlights the Objectives of the project, the how they should be assessed, what supporting measures are required, and what specific results should be observed, together with what are the sorts of significant risks.

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ANNEX 9

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