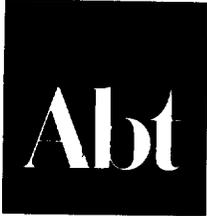


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# The Feasibility of Establishing a Secondary Mortgage Market in Zimbabwe

15 March 1996



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## **1.0 SUMMARY AND OVERVIEW**

### **1.1 Introduction**

This report is the first of two reports that will be prepared to address the feasibility of establishing of a secondary mortgage market in Zimbabwe. The specific goals of this first report are:

- to review reforms now under discussion by the Government to restructure the financial sector and in this light to assess the structure of the primary mortgage market and the feasibility of a secondary market;
- to examine the operations of the primary mortgage market, including the quality of the mortgage portfolio, the legal and administrative framework, and operational standards in order to determine the extent to which preconditions for establishing of a secondary market are met;
- to analyze the capital market and the level of interest by potential investors; and
- to assess the impact of current macro-economic conditions on the feasibility and timing of both restructuring the primary market and developing a secondary market.

The remaining chapters of the report describe secondary market operations and analyze the primary market and potential investors in the capital market (Chapters 2.0 through 4.0). The necessary preconditions for reform and our recommendations are summarized below and addressed in more detail in Chapters 5.0 and 6.0. The next steps, following written critique of this report by Government and the financial sector, are noted in chapter 7.0.

### **1.2 Overview: A Long-Term Approach to Restructuring the Housing Finance Sector**

Two fundamental questions have been addressed in our analysis of the housing finance sector in Zimbabwe:

- Is a secondary mortgage market feasible in Zimbabwe?
- Would a secondary market assist in the development of the housing finance sector and the housing market?

Overall, the establishment of a secondary mortgage market in Zimbabwe is potentially both feasible and beneficial as a long-run goal. There are two major preconditions to its establishment, however, which will determine the extent to which a secondary market is feasible and the extent to which it could assist in the provision of housing finance: (1) a major restructuring and desegmentation of the primary market and (2) improved macro-economic conditions leading to a reduction in the rate of inflation. Together, these two changes will determine how quickly the interest rate structure of primary market, which now operates below market levels, can be opened

to market forces and how competitive the primary market might ultimately be. A secondary mortgage market is technically feasible in the sense that it can be supported by the infrastructure of Zimbabwe's primary market, capital market, and legal framework. However, many policy and macro-economic issues must be addressed prior to further consideration of secondary market structure.

**Feasibility of a Secondary Market.** There are many characteristics of Zimbabwe's existing primary market, legal and administrative structure, and capital market that would support the development of a secondary market. The building societies are sophisticated financial institutions with a long history of cooperation with Government policies, including development of low income lending programs. Mortgage lending is supported by a well articulated legal and administrative framework. The capital market institutions are quite highly developed, although the market suffers from excessive dependence on government stocks.

However, a secondary mortgage market cannot be introduced into the current regulatory environment, which locks housing finance into a controlled, special circuit operating at below market interest rates. At a minimum, both the lending rates and deposit rates for the building societies would have to be freed from the various formal and informal controls that keep them below market levels: the building societies need to be able to compete effectively for both deposits and long-term funds. In summary, since a secondary mortgage market is designed to link the financial sector and the capital market, its development is a moot issue under present circumstances.

**The Potential Benefits of a Secondary Market.** Under the right circumstances, a secondary mortgage market could benefit Zimbabwe in several important ways. Increased access to long-term funds for housing would be the major benefit. In addition, risk management -- both for liquidity risk and credit risk -- would be easier, and the introduction of long-term mortgage-backed securities or bonds could contribute to a deepening of the capital market.

However, an important precondition is that housing finance be deregulated and opened to additional financial institutions. Thus, origination of mortgages would be undertaken by building societies, banks, and hopefully, new competitors such as mortgage banks. If the sector remains closed to all but the building societies, the time, effort, and expense required to create a secondary market facility may not be worthwhile. Large, well-established building societies, for example, could seek funds directly in the capital market by issuing their own mortgage-backed bonds.

Fortunately, the Government of Zimbabwe is committed to financial sector reform and is taking steps in this regard under the current structural adjustment program. Much of the requisite legislation, including the Banking Act, is now under review; legislation governing the building societies also needs to be addressed.

**The Current Housing Finance Sector in Zimbabwe.** Historically, in many countries throughout the world, housing has been financed through special circuits. Zimbabwe is no exception. The housing finance sector is a special closed circuit composed of four building societies, one of which has a commanding share of the market. Funds are mobilized solely from retail sources and are

regulated through various controls to enable lending rates to remain well below market -- as much as 5 to 8 points below yields on medium-term Government stock at present. In addition, explicit or implicit controls on deposit rates (such as on tax free PUPS) could limit the ability of building societies to compete for funds with institutions such as the Post Office Savings Bank or other financial institutions. The results are predictable:

- a limited availability of mortgage funds;
- a serious slow-down in the financing of housing, as building societies react to the below market rate structure by placing as much as half or more of their funds in short-term, high yield money market instruments. Thus, the small amount of housing that is currently being financed is dependent on benefits from this cross-subsidization; and
- failure to target assistance, that is, subsidization of all residential mortgage borrowers through below market rates, whether or not they are low income households.

This is not a sustainable situation. Without allowing mortgage interest rates to rise to competitive levels, access to wholesale funds on the capital market is not feasible. Thus, deregulating interest rates is, without question, the major precondition to establishing a secondary market.

**A Restructured Primary Market.** Our long-run vision of the housing finance sector is one of a growing and competitive primary market funded by both deposits and wholesale funds sought in the capital market, either directly by a lending institution or via a secondary market facility, or both. In addition to the building societies, banks and other non-bank financial institutions would be free to act as mortgage originators. In turn, each could diversify its portfolio in numerous ways, without the special advantages or concessions it is currently offered with regard to permissible rates, tax structure, or eligible lines of business. Thus, competition and the macro-economic environment would determine the interest rate structure, resulting in a level playing field.

This scenario is clearly a long-term goal. Dismantling existing regulations and traditions cannot be accomplished overnight. Furthermore, as discussed below, reduction in the rate of inflation is of paramount importance; it impacts not only affordability in the current market -- relatively little lending for housing is actually taking place at the moment -- but also prevents accomplishment of the highest priority reform: decontrol of interest rates in mortgage lending.

### **1.3 The Feasibility of a Secondary Mortgage Market in Zimbabwe**

**The Impact of Macro-economic Conditions on Housing Finance Reform.** Current macro-economic conditions, particularly the high-level of inflation and the large fiscal deficit, have serious deleterious impacts on both the delivery of new housing and the reform of the housing finance sector. Clearly, under current inflation rates, housing is affordable to very few. In addition, the interaction of high inflation and the regulations controlling Zimbabwe's special

circuit housing finance system will slow the pace of suggested reforms to the system. As noted, the first priority among these reforms is to decontrol interest rates and establish a market-based relationship between mortgage lending rates and rates on government stocks. **Since increasing rates on the existing residential mortgage portfolio is not feasible, equalization of rates must wait for a fall in inflation, and thus in long-term government borrowing rates.**

**Other Preconditions for Development of a Secondary Market.** As noted above, Zimbabwe meets many of the preconditions for establishing a secondary mortgage market. Both the building societies and the potential investors in the capital market are sophisticated financial institutions. Three of the building societies are fully computerized, and the newest entrant is currently addressing this issue. There are numerous banks, merchant banks, and non-bank financial institutions that could be potential competitors to the building societies. Procedures for recovery of arrears and foreclosure are well established, although investor perceptions concerning the potential for governmental interference in foreclosure needs to be addressed.

Unlike many other developing nations, political risk is not now a major factor in Zimbabwe; a positive credit culture exists, which has kept arrears and defaults to reasonable levels. Similarly, the building societies have approached lending to low income households in an innovative manner; while the adequacy of the volume of low income lending is a matter of debate, the performance of the low income portfolio has been quite reasonable in comparison with many other countries. Finally, while the lack of timely land registration and titling is a significant barrier to housing development, the Government, USAID, and other donors are fully aware of these problems and have been moving to address them.

Thus, a secondary mortgage market is technically feasible in Zimbabwe: there are many characteristics of the existing primary market, the legal and administrative structure, and the capital market that would support its development. **However, the first order of business is restructuring the primary market; these reforms should be undertaken regardless of policy decisions made regarding a secondary market.**

#### **1.4 Recommendations for Reform of the Housing Finance Sector and Development of a Secondary Market**

Our recommendations for reform are listed in summary form below, and discussed at greater length in section 6.0. There is no precise calendar that can be attached to the recommendations at this time, primarily because one of the key recommendations -- bringing mortgage lending rates up to a competitive, free market level -- cannot be fully implemented until there is a reduction in inflation. In general, however, most of the recommended policy changes can be planned for or initiated immediately. To some extent, there is a natural sequencing in the order of the list. For example, decontrol of mortgage interest rates can be announced as a policy measure as soon as possible; similarly, legislative changes regarding the stamp transfer tax can be initiated. Finally, assuming that progress is made on decontrol of the primary market, discussions can begin regarding the desired characteristics of a secondary market facility; however, its realization awaits implementation of a number of a number of other changes as noted below.

Our recommendations include:

### **Recommendations for Restructuring of the Primary Mortgage Market**

- (1) gradual establishment of market-based mortgage interest and deposit rates via decontrol of the special circuit approach to housing finance;
- (2) desegmentation of the housing finance sector and opening up of the mortgage market to competition; and
- (3) introduction of alternative mortgage products and affordability/assistance schemes;

### **Additional Recommendations Necessary to Development of a Secondary Mortgage Market**

- (4) exemption of secondary market mortgage sales from the stamp duty transfer tax (the tax is left on mortgage origination; thus, this recommendation will not reduce revenue);
- (5) definition of the regulatory treatment of mortgage-backed instruments;
- (6) investment in management information systems and standardization activities necessary for secondary market transactions;
- (7) development of a high quality, market-rate mortgage portfolio conforming to standardization guidelines; and
- (8) discussion of options for a secondary market facility, secondary market mortgage-backed products, and the roles of Government and the private sector.

A brief discussion of each recommendation follows.

#### **I. Recommendations for Restructuring the Primary Mortgage Market**

##### **(1) Establishment of Market Rate Lending and Deposit Funding in Housing Finance**

As noted above, this recommendation is the most crucial. Without this step, both establishment of a secondary market and effective reform of the primary market are not possible. Both formal and informal controls should be eliminated on lending and deposit rates.

The next important issue is the process and timing of interest rate decontrol. It is clearly not advisable to increase mortgage rates on the current portfolio. Rather, as long-term government rates fall, mortgage lending rates would be maintained at their current level until an appropriate spread is established with rates on comparable government stock; this spread would be based solely on market factors: that is, relative risk and liquidity.

**(2) Continued Development of Alternative Mortgage Products to Assist with Affordability**

Development of affordable mortgage products, a topic that the building societies have already initiated, is particularly important if inflation is expected to remain at a double digit level for some time. Under our recommendations, affordability would no longer be addressed through holding mortgage lending rates at a below market level. Rather, we suggest mortgage products that seek to balance borrower affordability and building society risk and return. Since many countries worldwide face economic conditions similar to those in Zimbabwe, other examples of dual index or deferred interest mortgages can be examined for their applicability here.

**(3) Deregulation of the Mortgage Market**

As discussed in Appendix II, the special circuit approaches to housing finance in the United Kingdom and the United States were dismantled during the 1980s. Deregulation of housing finance is now also underway worldwide, in countries as diverse as India and Poland. Similarly, we recommend that in Zimbabwe, building societies, banks, and non-bank financial institutions, such as the mortgage banks in the U.S., should participate in both loan origination and in securing funds through a secondary market facility. If there is to be a level playing field, a number of regulations that grant special advantages, such as PUPs or the POSB rate advantages, must all be reassessed. A variety of institutions would then be free to compete in both lending and in securing deposits.

**II. Additional Recommendations Necessary to Development of a Secondary Mortgage Market**

**(4) Exempt Mortgage Transfers from the Stamp Duty**

An important regulatory reform that must be undertaken prior to development of a secondary market is elimination of the duty on "any cession or substitution of creditor" with regard to mortgage-backed assets. Note, however, that the duty on origination would be retained and would be expected to bring increased revenues as mortgage activity increased.

**(5) Define the Regulatory Treatment of Mortgage-Backed Instruments**

There are a number of regulatory issues regarding mortgage-backed instruments which must be addressed; these include: (1) the potential treatment of mortgage-backed assets as prescribed assets; (2) the eligibility of mortgage-backed assets as eligible collateral for reserves; and (3) the risk-based capital treatment of these assets. At present, the issue of prescribed assets is most relevant.

In the long-run, it is strongly recommended that the entire system of prescribed assets be withdrawn. Such regulations ultimately prohibit capital from seeking its highest and best use. However, if the Government's requirements for borrowing dictate keeping the prescribed asset system in place for the short-term, we recommend that mortgage-backed assets be accorded eligibility. This might also have the effect of lowering the relative cost of these assets, that is,

by reducing the spread by which the yield of mortgage backed assets must exceed that of Government stocks.

Thus, it would be desirable to permit pension funds, insurance companies, and other investors, to hold a specific percentage, say 10 to 20 percent, of their prescribed in mortgage-related assets. A realistic proportion can be determined by the Reserve Bank and the Ministry of Finance, given their assessment of Government borrowing requirements at the time that such investments might be made available.

**(6) Investment in Management Information Systems and Standardization Activities Necessary for Secondary Market Transactions**

As discussed in Chapter 3.0, development of a secondary market will require additional investment of resources in management information systems. With regard to the functions of the primary market, the technology simply supplements or modifies systems already in place in Zimbabwe: servicing, reporting, collection, and so forth. There will, however, be more significant technology requirements for implementation of secondary market functions, in order to undertake pooling and stratification of loan portfolios

**(7) Development of a High Quality, Market Rate Mortgage Portfolio Conforming to Standardization Guidelines**

As noted above, mortgage rates would not be raised on the current portfolio. As interest rates fall in the long-run, however, a portfolio suitable for securitization should be developed.

**(8) Development of a Secondary Market Facility**

As discussed in greater detail in Chapter 2.0, development of a secondary market facility should enhance access to long-term funds, facilitate greater participation in housing finance, and, in addition, stimulate capital market development by providing another high quality, long-term instrument with which to trade. As has been discussed, the decision to develop the facility is dependent on undertaking prior reforms to the primary market. The approach can be gradual, and done in stages; thus, a secondary facility could be considered first, which could then evolve into a full-fledged secondary market. The information and technology requirements necessary for each stage would, correspondingly, increase at a more measured pace. The precise form of a secondary facility or market will be discussed in Phase II of this assignment.

## **1.5 Next Steps**

Proposals suggesting restructuring and desegmentation of the financial sector in Zimbabwe have been presented to the Government in the last several years. At least two of these studies have also recommended establishment of a secondary mortgage market. While we feel that a secondary market is potentially useful and feasible in Zimbabwe, Government and the financial sector institutions must commit to certain fundamental reforms before such a market could be developed. Unless, and until, such reforms are placed on an active agenda, implementation plans for a

secondary market are not salient. As noted, Government is now actively engaged in discussions regarding financial sector reform. It is hoped that consideration of the benefits of a secondary market, which must begin with restructuring of the primary market, can enter these discussions.

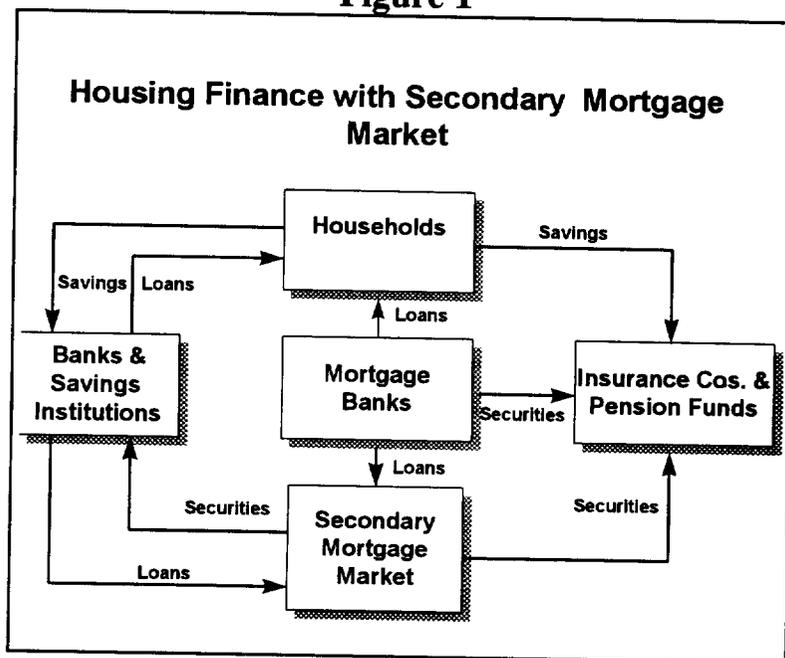
Thus, Phase II of this consultancy will proceed following a written critique of the recommendations presented here by Government and the financial sector. In conjunction with their proposed plans for reform of housing finance, Phase II will address the following topics: (1) alternative institutional structures for a secondary market, and correspondingly, alternative mortgage-backed products; (2) required legislative and regulatory changes; (3) design of affordable mortgage products and alternative, mortgage-based, low income assistance schemes; (4) the activities which need to be undertaken to implement the recommendations; and (5) a suggested schedule.

## 2.0 PRINCIPLES OF A SECONDARY MORTGAGE MARKET

### 2.1 Secondary Mortgage Markets and Institutions

A secondary mortgage market (SMM) involves the sale of mortgage loans or loan portfolios (Figure 1). The loans may be sold to specialized institutions called conduits or special purpose, separately capitalized companies that exist solely for the purpose of holding mortgages. These entities finance their purchases with the sale of securities backed by specific pools of the mortgages (mortgage-backed securities, or MBS). The securities may be purchased by institutional investors (insurance companies and pension funds), depository institutions or other capital market investors (e.g., mutual funds or unit trusts).

Figure 1



The SMM model was originally developed in the U.S. as a way for mortgage lenders to refinance their portfolios. It later became a technique for lending institutions to reduce the interest rate risk associated with fixed rate mortgage lending and the capital cost associated with on-balance sheet financing. The secondary market was developed by two government-sponsored enterprises, the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), that purchase loans and issue MBS.<sup>1</sup>

<sup>1</sup>These enterprises participate in the conventional (non-government insured) mortgage market. A somewhat different form of secondary market exists for government insured loans wherein a government agency, the Government National Mortgage Association (GNMA) guarantees pools of insured loans originated by mortgage bankers that are sold directly in the capital markets.

These enterprises are chartered by the government but owned by the public.<sup>2</sup> They provide payment guarantees on the MBS which facilitates investor acceptance. Because of their close association with the government, their securities are viewed as nearly default-risk free. A private SMM has developed in the U.S. as well for loan sizes above those purchased by the enterprises.

The majority of residential mortgage loans in the U.S. are funded through the SMM. MBS have been issued in a number of countries, including Ghana and South Africa. However, a true market, in terms of regular issuance and secondary trading of securities, has developed only in Australia, Canada and the United Kingdom. The SMM in Australia and Canada is dominated by government institutions whereas in the U.K. it is a private market.

SMMs have been created when true off-balance sheet financing is desired. A true secondary market involves the transfer of the risks and ownership of mortgage loans. Transfer of ownership enables lenders with relatively little capital to participate in the mortgage market. The downside of SMMs is that they are costly and time consuming to create. The sale of mortgages on an on-going basis requires standardization in the documents, terms and underwriting of the loans, creation of extensive automated information systems to allow the transfer of cash and information, and education of investors about the complexities of pass-through securities.

The role of the conduits has been important in the U.S. as they have been able to standardize the market (in terms of mortgage characteristics and securities issued) and develop significant economies of scale in the purchase and securitization functions. Relative to individual issuers, they have been able to:

1. Issue longer maturity bonds than individual institutions;
2. Obtain a higher credit rating on and lower cost funding for their activities than private issuers (primarily due to their support by the government); and
3. Incur lower transactions costs of issuance and greater liquidity in market for their securities due to high volume, centralized issuance.

There are disadvantages to the U.S. model as well. Although Fannie Mae and Freddie Mac compete vigorously, they are effectively a duopoly due to their government sponsorship. Although many observers believe that the enterprises could be completely privatized (i.e.,

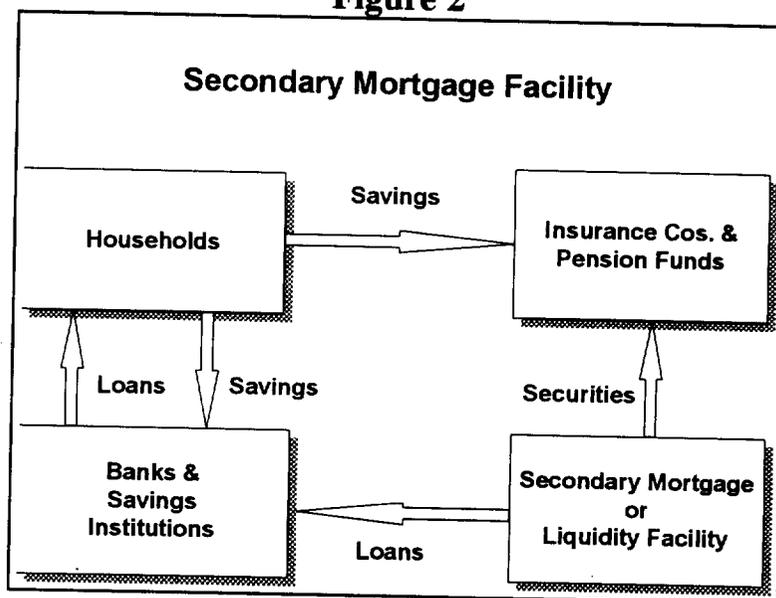
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<sup>2</sup> Fannie Mae was originally created as a government agency. It was privatized through the sale of shares to its customers in 1955 and privatized a second time through sale of shares to the public in 1968. Freddie Mac was capitalized in 1970 by the Federal Home Loan Banks. Its shares were devolved to the owners of the Banks, the savings and loans, in 1988 and privatized through sale of shares to the public in 1989. The government charter constrains the activities of the enterprises to the purchase of mortgages and the issuance of securities. They have several important privileges including an exemption from state and local taxation and exemption of their securities from Securities and Exchange Commission registration.

withdrawal of their government charter allowing them to go into other lines of business but eliminating their special privileges) such a move has been resisted by their owners and is complicated by their enormous size and market power.<sup>3</sup>

In many countries, purely wholesale institutions exist to facilitate the flow of funds to the primary market without the transfer of ownership or risk. These institutions, referred to as liquidity, rediscounting or secondary mortgage facilities, issue general obligation bonds in the capital markets and use the proceeds to refinance the portfolios of primary market lenders (Figure 2). In the U.S., the Federal Home Loan Banks have been making collateralized loans to mortgage lenders since the 1930s. They are government-sponsored enterprises like Fannie Mae and Freddie Mac. However, their ownership is different as they are cooperative institutions, owned by their members.<sup>4</sup> Similar institutions exist in France, Malaysia and Trinidad and Tobago.

**Figure 2**



A secondary mortgage facility (SMF) is appropriate if primary market lenders have poor access to the broader capital markets or concerns exist about their ability to manage interest rate or liquidity risk. The major advantage to the SMF design in a developing country context

<sup>3</sup> Fannie Mae is the largest financial institution in the U.S. (assets) and Freddie Mac is the fifth largest (check, assets). Even as fully private institutions they would be viewed as too large to fail and continue to enjoy the aura of government support.

<sup>4</sup> A unique aspect of the FHLB design is a requirement that customers must hold stock in the institution in proportion to the size of their mortgage portfolios and use of the facility. A downside of this capital structure is the lack of permanence of the capital. The SMFs in other countries are also owned by their customers. The Central Banks of Malaysia and Trinidad and Tobago own 20 percent of the shares of the institutions (Cagamas in Malaysia and the Home Mortgage Bank of Trinidad and Tobago).

it the simplicity in creation and operation. As a lender, a SMF does not have to develop systems to handle individual mortgage payments or monitor servicers. Its bonds are typically simple, interest-only securities that are easier for investors to process and understand. As a securities issuer, a SMF may enjoy the preferential access to the market and economies of scale in issuance. However, because the SMF is a lender, not a purchaser, the mortgage loans remain on the balance sheet of the originator. Thus, it will not be effective if lenders are capital constrained.

## 2.2 Benefits of a Secondary Market

Properly structured, a secondary market can provide significant benefits to a housing finance system, domestic capital market and ultimately to the entire economy. The primary benefit is an *increase in the availability of funds for housing*. A secondary market can overcome an institutional mismatch wherein primary market lenders have the capability to originate and service mortgages but lack sources of long-term funds, and institutional investors have a ready supply of long-term funds but no capability to originate and service loans. Expanding the supply of funds from market sources reduces the pressure on governments to provide direct (and often subsidized) credit to homebuyers. In turn, governments can target scarce resources to the most deserving groups.

A secondary market can *lower the cost of mortgage credit through a more efficient allocation of risk*. The ability to sell mortgage loans or use such loans to collateralize long-term borrowing reduces the liquidity risk faced by lenders. Lenders can also reduce the interest rate risk associated with fixed rate lending through access to long-term fixed rate funds from institutional investors. A secondary market can lower credit risk for investors through nationwide diversification.

By expanding the funding sources for mortgages, a secondary market can *improve competition in the primary market which can lead to lower relative mortgage rates* through increased efficiency and lower mark-ups. Expansion of the market and functional specialization can reduce costs through economies of scale. A secondary market can also *improve affordability* of housing finance for borrowers by encouraging the offering of longer maturity mortgages and alternative mortgage instruments (e.g., indexed loans and graduated-payment mortgages).

Finally, a secondary market can *stimulate capital market development* by providing a large volume of high quality, long term securities. Steady issuance of standardized securities can develop depth and liquidity in long-term bond markets. Development of long-term bond markets can stimulate increased competition among underwriters and increased issuance by non-mortgage entities.

### 2.3 Preconditions for Secondary Market Development

**Primary Market.** First and foremost, *mortgages must be attractive investments*. The interest rates on mortgages must be market determined and provide investors with a positive real, risk-adjusted rate of return. Thus, the mortgage rate must be sufficient to cover the investor's marginal funding cost (both debt and equity), the risks of mortgage investment (i.e., credit, funding and liquidity) and the administrative cost of servicing mortgages.

A second key primary market characteristic is *standardization of the mortgage instrument*. In order to reduce the transactions costs of evaluating mortgage loans and the processing costs of issuing and administering MBS, the characteristics (e.g., rate adjustment, amortization schedule, term) of the mortgages should be uniform for all loans in a pool. In addition, documentation of mortgage loans (e.g., mortgage note, deed of trust, application, property appraisal report) should be available and relatively standardized for all loans in a pool.

Along with standardization of the mortgage documentation and instrument, the *underwriting of mortgage should be performed in a comprehensive and consistent manner*. The underwriting process establishes guidelines ensuring that a borrower has the ability and the willingness to repay the debt and that the property provides sufficient security for the mortgage. Loans within a pool should have maximum debt service-to-income ratios (measure of the ability to pay) and loan-to-value ratios (assessing willingness to pay). Such maximums facilitate investor assessment of credit risk.

*The servicing of and provision of information on mortgages is a critical component* of a viable SMM. The collection of mortgage payments and the periodic remittance of these payments to investors is the major task of servicers. In addition, servicers are the primary repository of information on the mortgage loans. Thus they must maintain accurate and up-to-date information on mortgage balances, status and history and provide timely reports to investors. Lenders must be able to provide historical information on their mortgage portfolios as well so that investors can assess the default and cash flow risk of their investments. An effective, automated management information system is a prerequisite for an SMM.

*An important part of servicing is the collection of delinquent mortgages*. The documents must spell out payment obligations and procedures to be followed in the event of default. Although lender discretion in handling delinquent loans is an important part of the collection process, third party investors must know what those procedures are before making their investment (in order to assess the degree of default risk). In particular, investors will want to know what latitude exists in dealing with the borrower (e.g., forbearance or restructuring) and the implementation procedures leading to foreclosure and repossession of defaulted loans.

**Legal and Regulatory Framework.** A successful housing finance system is premised on a well developed legal and regulatory structure. *The primary concern for investors is the security interest*. In other words, how enforceable is the claim the investors has on the collateral (house) in the event of default. The answer depends on the clarity of land title, the

ability to establish priority of liens on the collateral (i.e., an effective title and lien registration system) and the ability to enforce *foreclosure and repossession* over a reasonable time period.

Enforceable security interest is a necessary but not sufficient condition for a successful housing finance system. For transactions involving asset sale or pledging (i.e., as collateral), *security interest must be transferable* and investors must have the ability to perfect their security interest after transfer. Furthermore, *the transfer of interest must be at relatively low cost*. Thus, transfer and recordation fees should be nominal and borrowers should not have to approve the transfer.

An additional legal concern for investors is the *solvency of the servicer or third parties* (e.g., insurers providing credit enhancement, trustees). In the event of insolvency, payments to investors may be delayed while a court reviews the merits of various claimants. Thus, the rights of investors to the cash being collected on their behalf is important. Also, investors must be able to monitor the financial condition of servicers. Investors may demand the right to "pull" or transfer servicing in the event the solvency of the servicer becomes impaired to avoid the hazard of diverting cash flow, delaying payments or inadequately collecting loan payments.

*The regulatory environment must be supportive of a secondary market.* Capital requirements on mortgages and MBS must reflect their relative risks and ensure a level playing field. Proper accounting standards should exist to provide institutions, investors and regulators with accurate and consistently defined information. Tax treatment of fixed interest instruments should be uniform.

**Capital Markets.** A secondary market is premised on the existence of *pools of long-term savings* that can be allocated to those activities providing the highest risk-adjusted return. This requires a reasonable private sector savings rate in the economy, the institutional infrastructure to mobilize and allocate such funds (e.g., pension and insurance companies, mutual funds) and discretion on the part of investment managers to allocate funds to housing. A *stable macroeconomic environment* is an important prerequisite for capital market and housing finance development. A relatively stable and predictable rate of inflation is necessary to mobilize long-term savings (i.e., to overcome liquidity preference). Low or moderate inflation improves the affordability of mortgage loans and the attractiveness of mortgage assets to investors.

**Role of Government.** In a well developed capital market, wholesale funding and secondary mortgage markets can be developed by the private sector. However, in less well developed capital markets, *government support* may be necessary to achieve investor acceptance and increased access to funds. This support may take the form of guarantees on securities issued, creation or partial ownership of secondary market institutions (conduit or SMF) and/or preferential treatment of such institutions (e.g., tax treatment, regulatory treatment of securities issued). Clearly, however, each of these options must be examined with regard to its budgetary implications and/or risk profile.

In many circumstances, newly created institutions have difficulty issuing bonds, particularly at "reasonable" rates of interest, because they have no track record in operation. The presence of high quality investors along with appropriate oversight by the government can go a long way in satisfying potential bond purchasers. A back-up *guarantee* by the government (either explicit or implicit) can provide comfort to investors to encourage acceptance of the securities. Substantial private ownership can encourage appropriate risk management and efficiency. Having private capital at risk reduces the potential moral hazard associated with the dispensing of government guarantees. The use of private capital does involve a trade-off, however. A government sponsored institution is a monopoly. Therefore, careful attention must be given in defining its mission and monitoring its activities and risk taking.

The purpose of secondary market institutions must be well understood as well. Their primary mission should be to mobilize private capital for housing, broaden financial markets and improve risk allocation. *They are not appropriate vehicles for subsidizing mortgages.* If the funds for subsidizing mortgage borrowers come from voluntary savers or private investors, they will not supply sufficient capital to meet demand. As a result, such institutions will have to resort to non-price rationing of mortgage credit. Their lending activities may also crowd other intermediaries from the market and distort overall credit allocation. Affordability issues can be better addressed through mortgage design and direct borrower income or downpayment support than through interest rates charged by financial institutions.

### 3.0 ASSESSMENT OF THE PRIMARY MORTGAGE MARKET IN ZIMBABWE

The major prerequisites for a secondary market is a strong primary mortgage market. The purpose of this chapter is to assess the primary market in Zimbabwe in order to identify factors necessary in developing a secondary market. The first, and most crucial issue, the special circuit structure of the market, has already been noted. Other factors include the adequacy of information necessary for analysis of portfolio quality, the level of automation, quality of servicing, adequacy of the legal framework, and level of standardization.

As discussed in Chapter 2.0 and Appendix IV, a wide range of secondary market functions can be developed, ranging from less complex secondary market facilities (SMF), often referred to as rediscount or liquidity facilities, to a full-fledged secondary mortgage market (SMM) in which mortgage assets are sold (and risk transferred) to the secondary market institution. In the United States, these two models are:

**SMF: The secondary market as a lender (Federal Home Loan Bank).** The SMF provides loans to primary lenders; the funds are used to finance individual mortgage loans. Typically, the loans would be collateralized by the mortgages, which requires that the primary lenders and the mortgages meet specific standards.

**SMM: The secondary market as a buyer and issuer of securities (Fannie Mae and Freddie Mac).** The SMM buys loans meeting its specifications from a primary lender. Initial capitalization will need to be replaced with funds generally created from the issuance of bonds and securities (either mortgage-backed or pass-through securities).

Either of these models -- the simpler SMF or the more complex SMM -- may ultimately be open to Zimbabwe. **It is important to note, however, that while both options make demands on the sector's information technology, the information needs are generally much more rigorous in the SMM model.** Thus, prior to participation in a secondary market it will be important to consider a lender's financial condition, organization and staffing, origination volume and quality, loan servicing experience, and other relevant factors. As part of the development of a secondary market, basic eligibility criteria for becoming an approved lender, based on these factors, would be established. **More importantly, a capacity for detailed loan-level analysis is crucial to the SMM model.**

This chapter is organized as follows. Section 3.1 provides a discussion of the special circuit. Section 3.2 notes the variables that are generally required for analysis of portfolio quality. The remaining subsections summarize the financial condition of the sector and discuss operations and administration, including underwriting, servicing, automation, and the legal framework. In addition, loan-level databases have been obtained from several building societies. An analysis of this data, which will remain confidential, is now underway. The ultimate goal, if feasible, is to use the data to simulate the creation of mortgage securities that would be backed by existing loans. In this way, the factors that are involved in securitizing existing or future portfolios of the building societies can be clarified.

### 3.1 Overview of the Mortgage Market

**Special Circuit Housing Finance.** The housing finance system in Zimbabwe is a classic special circuit modeled after the pre-1980 system in the United Kingdom (see Appendix II). The building societies -- the Central African Building Society (CABs), the Beverley Building Society, Founders Building Society, and the Zimbabwe Building Society (ZBS) -- are the sole providers of housing finance. Banks and discount houses are precluded from the market.

Both lending rates and deposit rates are below market levels. A combination of regulations and special advantages has been put in place to maintain the below market circuit while at the same time maintaining the financial health of the building societies. The major distinguishing characteristics include:

- formal and informal controls on lending and deposit rates
- tax-free status
- lower withholding tax on deposit interest (20% as opposed to 30% for others)
- quasi-mutual
- class A shares - equity of original promoters or founding members
- class B shares - paid-up shares, taxable
- class C shares - tax-free; a percentage of the proceeds must be used for housing loans (PUPS)

Until March 1993, lending rates were set by the government; as of that date, rates for high income lending were decontrolled. However, both high and low income rates are currently significantly below returns on Government stock and it appears that a combination of factors -- concern for affordability, tradition, informal agreements with the Government, and ability to cross-subsidize -- continues to support the special circuit approach.

The building societies are dependent on their ability to attract funds from the public. Both the government-owned Post Office Savings Bank (POSB) and money market funds compete directly with the building societies for savings. The POSB pays higher interest at a tax-free rate. Thus, the Association of Building Societies has negotiated with the government to allow for the development of products that encourage deposits. The two that have had the most impact on the level of deposits are PUPs and NCDs:

- In 1986 the building societies were authorized to issue Class C Shares - PUPs (Permanent Paid Up Shares). These are tax-free shares. There is a requirement that 25% of the funds be used for low income housing (of which 25% was to be lent to the National Housing Fund for on-lending to local authorities, and 75% for individual mortgages). By the early 1990s well over 25% of the funds were being channeled into low income lending.

- In 1992 the building societies were given authority to issue Negotiated Certificate of Deposits (NCDs). They have the following characteristics
  - 30/60/90/120 day terms
  - taxable at normal rate
  - limited to maximum of 20% of their total deposits
  - bearer bond, tradeable

The rate for the Class B (paid up, taxable) shares is set by the building societies themselves, not by the government. These rates are very competitive; even though they are taxable, pension funds or other entities not required to pay taxes may invest in these shares.

Table 3.1 lists the rate ceilings and some of their changes since 1991.

**TABLE 3.1**  
**BUILDING SOCIETY LENDING AND DEPOSIT RATE CEILINGS**  
(percent)

RATE	FEBRUARY 1991	SEPTEMBER 1991	MARCH 1993
LOW INCOME LENDING RATE	13.0	15.0	18.5
HIGH INCOME LENDING RATE	14.0	17.0	decontrolled (currently ranges from 19.0 to 22.5 %)
CLASS C SHARES (PUPS)	11.25	12.65	19.5

Under the current high interest rate structure, the special circuit approach has caused the building societies to invest more of their funds in assets with higher yields than mortgages. This is discussed further below; essentially, these higher yielding assets are used to cross-subsidize the below market rates being earned on the mortgage portfolio. This is only sustainable as long as short term rates remain relatively high; it also introduces considerable term risk. Also important has been the ability to offer low income housing at a blended rate using the USAID grant funds. However, as has been noted, the special circuit environment is not compatible with establishment of a secondary market. **Thus, an important part of the plans for implementing a secondary market will be the challenge of creating a level playing field without compromising the building societies ability to remain competitive.**

### **3.2 Information Needs for Analysis of Portfolio Quality**

A variety of mortgage-backed assets may eventually be introduced in Zimbabwe, including mortgage bonds, over-collateralized loans, or mortgage backed securities (MBS). Each has significant information requirements; as noted, the information requirements for MBS exceed those of some other options. Even without the creation of a secondary market, however, it is important for primary lenders to have the capability to stratify their portfolios by certain criteria, and to be able to analyze the performance of underwriting or loan product characteristics. This topic is discussed in more detail in Section 3.4 on automation. This type of analysis helps lenders maximize profitability by making changes to underwriting or servicing policies based on statistical findings, and provides an early-warning system for potential problems.

If a secondary market is created to buy loans for securities, this analytical capability will be essential. The secondary market institution will require the data to create securities, make pricing decisions, and to comply with the disclosure requirements. Additional loan level detail will need to be captured in the database to allow lenders to stratify their portfolios by specific characteristics.

At a minimum the information should include:

- purpose of loan (i.e. home purchase, construction, extension/modification)
- term of loan (in months)
- occupancy status - owner occupied or investor owned
- monthly payment to gross income ratio
- interest rate (current and all prior levels)
- outstanding loan balances and dates of change
- borrower income

The need to create management information reports requires additional loan level data to be entered in the database. To adequately monitor the performance and model profitability, the following fields should be included:

- loan-to-value ratio (at time of origination and current)
- months of seasoning (current date minus date of origination or first payment date)
- prepayment experience
- interest paid to date and/or date of last installment
- delinquency status (arrear, referred to foreclosure, modifications, extensions, etc)

Testing the ability to undertake these analyses is important; a secondary market institution will perform these same types of analyses to monitor the performance of each lender, as well as the performance of the loans being sold or used as collateral. One analysis issue has already been encountered in Zimbabwe; the policy of adding on to an existing loan rather than taking out a

second mortgage or home equity loan, presumably to avoid payment of the stamp duty. The cash flows from the different components and may need to be separated.

The following section presents an overview of the building societies portfolios. The parameters established by the building societies for lending and servicing are listed in Appendix III. Subsequent sections note the types of gaps in information or analysis that face several of the societies. Additional analyses of the building societies' loan level databases will supply some, but not all, of the required statistics.

### 3.3 Overview of Building Society Finances

With or without the development of a secondary market, a primary market lender's financial condition should support its viability as an on-going concern. Table 3.2 reflects the financial condition of the four building societies as of 6/30/95; based on their audited annual reports they appear to have the financial strength necessary to originate and service mortgage loans.<sup>5</sup>

**TABLE 3.2  
FINANCIAL PROFILE**

*(Dollars in millions)*

<b>INSTITUTION</b>	<b>REVENUE</b>	<b>EXPENSES</b>	<b>ASSETS/ CAPITAL</b>	<b>RESERVES</b>
CABS	Z\$674	Z\$674	Z\$3,222	Z\$418
Founders	Z\$174	Z\$112	Z\$1,050	Z\$56
Beverley	Z\$412	Z\$267	Z\$1,952	Z\$130
ZBS	Z\$240	Z\$200	Z\$1,882	Z\$27

*Source: Building Society Annual Reports (As of 6/30/95)*

**Mortgage Volumes and Trends.** As noted above, the interaction of the current high interest rate environment and the special circuit system has inhibited the building societies from using a significant portion of their capital for home mortgages. Table 3.3 shows the distribution of assets, and Table 3.4 shows the proportion of assets in mortgage loans. CABS, Founders, and Beverley all hold less than half their assets in mortgages. A comparable figure for thrift institutions in the United States was obtained from OTS (Office of Thrift Supervision). The total proportion of assets currently held by the thrifts in mortgages is 71 percent: 48 percent in one to four family units, 7 percent in multi-family units, and 16 percent in mortgage backed securities.

In a recent article, John Young, president of the Association of Building Societies, noted the sharp increase in building society short-term deposits, which grew from \$1.9 billion to \$5.13

<sup>5</sup>The ZBS figures show no reserves. The ZBS portfolio is currently under development and numerous loans are waiting to be finalized. Thus, since ZBS currently reports that it has no delinquencies or foreclosures, it also reports no reserves.

billion in the year ending June 30, 1995. He said that the "volatile nature of a large proportion of the short-term funds meant they could not be fully committed to mortgage loans."<sup>6</sup>

It should be noted that the available figures for ZBS do not provide an adequate picture of its situation. Much of ZBS's portfolio is currently under development and for various reasons, including waiting for title, the loans are in process but not yet fully funded. ZBS focuses heavily low income lending, much of it assisted by USAID, and several of the funding vehicles are waiting finalization. Thus, the portion of ZBS's assets in mortgage loans is expected to increase in the near future, which will also boost the overall proportion for all the building societies. **Nevertheless, the basic point still stands: the current environment encourages cross-subsidization investment policies detrimental to the housing market.**

**TABLE 3.3**  
**BUILDING SOCIETY ASSETS**  
**(Z \$millions)**  
**(through 6/30/95)**

USE	CABS	FOUNDERS	Beverley	ZBS
Mortgages	Z\$1,462	Z\$384	Z\$715	Z\$60
Properties in possession	Z\$13	Z\$1	Z\$5	0
Loans	Z\$82	Z\$82	Z\$53	0
Fixed Assets	Z\$182	Z\$63	Z\$155	Z\$0.7
Debtors and prepayments	Z\$12	Z\$3	Z\$5	Z\$127
Investments and cash	Z\$1,471	Z\$517	Z\$1,019	Z\$1,695

*Source: Building Society Annual Reports, June 30, 1995*

<sup>6</sup>*The Financial Gazette, Harare, December 7, 1995.*

**TABLE 3.4**  
**MORTGAGE LENDING ACTIVITY**  
(Z \$millions)

INSTITUTION	ASSETS (Z\$)	MORTGAGE LOANS (Z\$)	MORTGAGES AS PERCENT OF ASSETS
CABS	Z\$3,222	Z\$1,462	45.4%
Founders	Z\$1,050	Z\$384	36.6%
Beverley	Z\$1,952	Z\$715	36.6%
ZBS	Z\$1,882	Z\$60	3.2%
TOTAL	Z\$8,108	Z\$2,621	32.3%

*Source: Annual Report of Building Societies, June 30, 1995*

Table 3.5 presents the composition of loans by low and high income status (low income loans are those under Z\$35,000). As noted, ZBS will concentrate primarily on low income loans. The other three building societies stated they were committed to providing housing finance to those borrowers that have been shut out of the system in the past. While they are to be commended for the number of low income loans they have funded, a disparity still exists in the dollar amount of low income loans, as they represent only about 13% of their outstanding portfolios.

**TABLE 3.5**  
**COMPOSITION OF PORTFOLIOS**  
(Z\$ millions)

INSTITUTION	HIGH INCOME #	HIGH INCOME \$	LOW INCOME #	LOW INCOME \$
CABS	13,930	Z\$1,340	11,304	Z\$185
Founders	6,300	Z\$309	2,144	Z\$68
Beverley	6,784	Z\$618	7,121	Z\$68
ZBS	231	Z\$55	411	Z\$22
TOTAL	27,014	Z\$2,268	20,569	Z\$343

*Source: Building Societies*

**TABLE 3.6**  
**MORTGAGE ORIGINATION VOLUMES**  
(Z \$millions)

INST.	1991	1992	1993	1994	1995 *
CABS					
# Loans	5,756	1,969	1,025	1,876	4,332
Z\$ Volume	Z\$329	Z\$189	Z\$82	Z\$163	Z\$460
Founders					
# Loans	2,625	813	417	767	1,492
Z\$ Volume	Z\$122	Z\$43	Z\$19	Z\$47	Z\$124
Beverley					
# Loans	1,885	736	1,277	1,877	1,391
Z\$ Volume	Z\$79	Z\$70	Z\$24	Z\$54	Z\$137
ZBS	Not applicable	Not applicable	Not applicable	333	309
# Loans				Z\$40	Z\$37
Z\$ Volume					
TOTAL					
# Loans	10,266	3,518	2,719	4,520	7,215
Z\$ Volume	Z\$532	Z\$303	Z\$126	Z\$266	Z\$721,953

Source: *Building Societies*

\* Through October 1995

Table 3.6 shows the pattern of mortgage originations since 1991. The extremely low volumes in 1993 coincide with the dramatic flight of deposits experienced by the building societies (in excess of \$600 million).<sup>7</sup> The building societies cite several reasons for the low number of originations; their own explanations are in full accordance with our conclusions. Ranked by importance, their reasons include:

1. below market mortgage rates lead to investment in other assets
2. the unfavorable economic environment limits affordability
3. an inadequate supply of housing, due to the high cost of construction and bottlenecks in the Land Registry system
4. lack of liquidity, including having no secondary market
5. conservative underwriting criteria

**Delinquencies.** Delinquency ratios are an important aspect in assessing a lender's overall performance. Based on the total number of loans being serviced by the four building societies,

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<sup>7</sup>It should also be noted that the number of loans is small in comparison to estimates of the need for housing. The MPCNH now estimates that 100,000 units per year would be necessary to eliminate Zimbabwe's housing shortage by the year 2000.

Table 3.7 presents the ratios for delinquencies calculated by dividing the number of delinquent loans by the total number of loans. It is important to calculate delinquency ratios on the number of loans as well as on the dollar volume in arrears; both statistics give a particular insight into the portfolio. For example, the number of loans in arrears gives a truer picture of the administrative burden; dollar arrears as a proportion of mortgage assets points up other sorts of risk.

**TABLE 3.7  
DELINQUENCIES  
FOR ALL BUILDING SOCIETIES**

	0-30 DAYS	31-60 DAYS	61-90 DAYS	> 90 DAYS	TOTAL
NUMBER OF LOANS	2,233	1,354	518	1,124	5,229
RATIO ON NUMBER OF LOANS	4.6%	2.8%	1.0%	2.3%	10.8%

*Source: Building Societies, November 1995.*

Table 3.7 indicates that the percent of loans in arrears has now reached 10.8 percent. It is not clear what an acceptable rate of delinquencies might be under current conditions in Zimbabwe. The delinquency rate in the United States, 4.5 percent (calculated by the Mortgage Bankers Association), may not be an appropriate reference point. More meaningful is the fact that the building societies themselves are concerned that the rate is too high and that it has recently risen. Redundancy was the reason most often cited for the increase in delinquent loans. Many of the building societies have made employee-assisted loans to various corporations; if one of these companies has a major layoff, it dramatically affects their portfolio.

Delinquencies as a proportion of the dollar value of the outstanding mortgages paints a quite different picture. Total delinquencies are Z\$ 23.8 million, which is only 0.9 percent of the mortgage volume of Z\$ 2621 million. Clearly, loans in arrears have low outstanding balances and/or are small. It is interesting to note, however, that all of the building societies stated they did not see an appreciable difference in the paying habits of the low income and high income loans; thus, this issues warrants further analysis.

**Foreclosures.** At the present time, a very limited number of foreclosures have been reported by the building societies. The total number of loans in foreclosure, as of November 1995, is 851, which represents 1.76 percent of the total number of loans (48,425).

**Prepayment.** Prepayment is another important statistic used to price mortgage backed securities; if prepayments greatly exceed expectations, actual and planned income flows to an investor will decrease. At the present time, the building societies do not have sufficient data to

determine prepayment experience. As stated previously, it will be important to allow for the capture of this loan level information.

### **3.4 Administration and Operations**

#### **3.4.1 Underwriting**

This section presents a brief overview of the characteristics that are currently used to originate and underwrite mortgage bonds in Zimbabwe. Generally, the building societies use similar criteria; however, any major differences have been noted. A chart summarizing these lending practices is included in Appendix III.

**Mortgage Products.** Currently, all loans being originated are variable rate mortgages, with regular monthly installments. The rates are not tied to a specific index, but rather are administered rates. The borrowers receive adequate notice of the interest rate and payment change. However, these types of loans may be difficult to securitize. Under an SMF scenario, using these loans as collateral would not be a problem, as the cash flow is not passed-through. But, if these loans were sold to a secondary market institution to be securitized in a pass-through security, changing the interest rate would alter the cashflow. If the institutional investor expects to receive a pre-determined cashflow, an upfront discount could be required to offset the uncertainty factor.

With limited success, the societies have attempted different loan products in the past. A five-year fully amortizing, fixed-rate mortgage was discontinued due to unaffordability and volatility of the interest rates. In addition, Beverley instituted the Red Door Bond (a Graduated Payment Mortgage), targeted to the low middle-income borrower, whose income was too high to qualify for low income lending. This loan was designed to increase the number of families that could qualify for a housing loan; it was not marketed as a hedge against rising interest rates. The following were the salient features of this loan product:

- the interest rate and term of the loan were set like other loans;
- the initial monthly repayment was at a lower level than needed to fully amortize;
- the loan had a negative amortization; the loan balance could increase;
- the payments increased at a predetermined rate, with additional increases occurring each year for a set number of years (not to exceed six years);
- annual payments could increase up to 20%;
- the borrower chose the start rate at any rate between 60% and 100% of the fully-amortizing payment;
- the loan was designed to help first-time homebuyers.

Due to high delinquencies caused by the inability of wages to support the annual payment increases (up to 20%), and the reduced cash-flow to Beverley during the early years, this product was discontinued in 1993. Nevertheless, it is instructive that this experiment took place. As noted in our recommendations, introduction of affordable mortgage products,

including graduated payment characteristics, is one of the approaches to affordability that might prove useful.

In the initial stages of secondary market development, the limited variety of mortgage products offered in Zimbabwe could be viewed as advantageous. It will be important to create securities using collateral with similar characteristics; this will allow the secondary market institution to amass an acceptable volume, increasing the liquidity. Moreover, it will be easier to market to potential investors, and will simplify the disclosure documents that will be required. However, the impact that administered rates will have on the marketability of the securities will have to be analyzed and addressed.

As the secondary market matures, it will be the primary market that will be the catalyst for new products. The primary market can identify niche products or products that will establish a competitive edge or cross-selling opportunities. The introduction of a secondary market institution could stimulate the development of new products aimed at meeting the needs of the consumer.

**Mortgage Parameters.** Currently, building societies do not exceed a 25-year repayment period. They generally offer 10, 15, and 20-year terms. The law allows for up to a 35-year repayment period. Only CABS has a stated maximum loan amount of Z\$5m. CABS and Beverley have no minimum loan amount, while Founders and ZBS have a minimum loan amount of Z\$5,000. Low income loans are for amounts less than Z\$35,000.

**Eligible Borrowers.** Age of Borrower: building societies do have maximum age requirements; it is decided on a case-by-case basis and there may be mitigating factors. Sex of Borrower: applicants should not be discriminated against based on their sex. Title: the borrower must hold clear title to the property. Counseling: all of the building societies provide counseling to the prospective borrower at the time the loan application is taken, to explain the loan program and help them with completing the application.

**Factors Determining Borrowers Ability and Capacity to Repay Debt.** Income to payment ratio. Generally the building societies determine the maximum bond amount based on 25% of the borrower's gross monthly income (gross monthly income includes salary, directors fees, net rents, investment income, regular annual bonus). Founders uses 23.5% generally, but will go to 24.5%. Building societies will go as high as 30% if there are compensating factors. Previous credit history is reviewed if appropriate. A credit bureau (Dun & Bradstreet) does exist in Zimbabwe, but is not a repository for bank data and is not relied upon to make underwriting decisions. The type of information reflected is typically negative, including civil lawsuits and judgements. Most potential borrowers would not have any useful data reported. Down Payment. The downpayment is 25% in most cases. However, Government housing guarantees as well as employer guarantees can reduce the down payment requirement to as low as zero. Verification of Salary. At the time the loan is being underwritten the salary information that is provided with the application is generally not verified. The building societies are familiar with most of the private companies, and public sector certifications. If there is any concern over the validity of the information the underwriter will attempt to verify

the data. **Self-employed borrowers** must provide bookkeeper records and bank statements to verify the salary. Tax forms can be submitted if available. **Documentation.** Borrowers must complete a loan application, provide proof of salary, agreement of sale, title deeds (if purchase), builder's quotation and approved building plans for a construction loan, and in some cases a birth certificate.

**Factors Determining Whether the Property is Adequate Collateral for the Bond.** **Loan-to-value ratio.** Generally the building societies will not lend more than 75 % of the appraised value of the collateral or the purchase price (whichever is lower). **Appraisal.** Every property is inspected by an evaluator. The evaluator is an employee of the building society and is trained in property evaluation. There is no formal certificate program for evaluators, and there is no tracking of the performance of individuals (such as number of cases that become delinquent). Value is based on price per square meter, taking into consideration the following: age of property, structural defects, and overall condition of property. The Valuation Form is quite standard across building societies.

**Building/Construction Loans.** Beverley and Founders do not provide funds to begin construction. CABS will give a small percentage of the commitment amount to begin the work. During construction the borrower must provide proof of completion and funds are disbursed (after inspections) to continue the process. Upon completion, the final property inspection is done and the full proceeds are disbursed. It appears that most construction is completed within 6-12 months.

**Approval Process.** Each building society has an extensive review process, with many checks and sign-offs during the process. In many cases the loans are signed by senior management for final approval. Each building society has a checklist that is maintained during the processing of the loan to identify where in the process the loan is, and what documents are missing. All building societies stated they would like to automate this function to some degree.

**Compensation.** All origination and underwriting staff are paid salary only; there is no commission or bonus structure.

**Summary.** These guidelines are fairly conservative. As has been noted, it would be beneficial to analyze the impact that these various criteria have on the performance and risk profile of the portfolios. Such analysis may suggest that the criteria could be loosened without compromising the performance, thereby increasing the affordability of housing.

### 3.4.2 Servicing Guidelines

A primary market should have specific, written procedures in place for handling mortgage servicing functions, whether or not a secondary market is developed:

**Payment Administration.** This refers to the handling of borrowers' monthly mortgage payments. Specifically, it involves receiving these payments from the borrowers (at designated

places), depositing them into designated bank accounts, and applying them to each individual borrower's loan records.

**Default Servicing.** Default servicing refers to managing mortgage loans that are in various stages of default (delinquent, seriously delinquent, in foreclosure). To be effective, default servicing procedures should provide for consistent contact and follow-up with borrowers and include guidelines for preventing and resolving borrowers delinquent payments, working with borrowers who need assistance to avoid foreclosure, initiating foreclosure, and maintaining and disposing of acquired properties.

**Cash Control.** This deals with the safeguarding of funds collected from borrowers, including procedures for maintaining accurate internal accounting records, reconciling them regularly to the designated bank account records, and accounting for any differences.

**Customer Relations.** Customer relations involves responding to borrowers inquiries about the term of their bond, their payment record, or any other information they may require. This may include providing copies of any housing loan documentation.

**Record-keeping System.** The lender must be able to maintain the records and produce reports the servicing staff will need to manage housing mortgages on behalf of borrowers and the secondary market. Whether a lender uses a computer software program provided by another company, or has developed its own in-house system (be it fully automated, semi-automated, or even manual), it should provide for the following:

- daily activity reports for cash receipts (payment received), payments applied, and exceptions (payments that could not be processed);
- a method of controlling checks or cash received;
- ongoing records for each mortgage loan, including scheduled payment amount, loan activity, capable of generating loan histories;
- customary delinquency and foreclosure reports; and
- a monthly trial balance report for its entire mortgage portfolio.

### **3.4.3 Servicing Procedures in Zimbabwe**

The building societies have developed sound procedures for the basic loan servicing functions. Specific comments and recommendations are made here in the areas that will impact the development of a secondary market. Table 2 of Appendix III provides a summary of the servicing policies of the building societies.

**Cash management.** CABS, Founders, and Beverley have automated systems that allow for the rapid posting of payments to their accounting systems, maximizing their cash flow. This will be advantageous if they have to remit funds on a periodic basis to the secondary market institution as part of their servicing responsibilities.

**Amortization.** It appears that each of the building societies calculates the monthly payment in a manner that actually prepays the loan in fewer years than the stated term of the loan (approximately 18 years vs. stated 25 years). A formula is used to determine the monthly installment. This is not disclosed to the consumer. This practice will make determining the weighted-average term of the securities, and other information that would need to be disclosed to the investor, very difficult. This practice may or may not be an issue if the loans were to be used as collateral for a loan from a secondary market facility. However, the primary lenders may need to discontinue this practice if they are going to sell the loans in the secondary market for securitization. Each monthly payment is applied after the capitalization of interest and other charges has occurred (as explained in next section). The database does not carry a field for next payment due date or last paid installment.

**Capitalization.** Each of the building societies capitalizes, on a routine basis, the monthly interest due, fire insurance premiums, life insurance premiums, late charges, other delinquency or foreclosure fees, return check fees, repairs, and property maintenance costs. These balances are added to increase the principal balance and then the amount of any funds remitted are deducted to decrease the principal balance. Thus, the outstanding loan balance is a running balance of the debits and credits applied. This procedure would need to be analyzed to understand the impact it would have if the loans were used as collateral for a loan from a secondary market institution. It may require the primary lender to provide over-collateralization to compensate for uncertainty. However, if the loans were sold to an SMM institution to back a mortgage-backed security, it would cause the balance of the security to be out of phase with the balance of the collateral backing the security. A process would have to be developed to reconcile the two balances.

**Facilities.** All legal documents are kept in fire-proof strong rooms, which would be a requirement of the secondary market. They may need to consider a third party custodian to guard against the possibility of selling the same loan more than once for loans sold into the secondary market.

**Automatic payment deductions.** All of the building societies are attempting to get the bulk of the monthly installments paid automatically by the borrower's employer, debited from another bank or building society account, or debited from an account held in their own institution. Currently CABS gets about 80% of its payments in this fashion, with Beverley and Founders both getting about 30%. This is an excellent way to manage cash flows and reduce delinquencies. All of the building societies expressed problems in getting public sector employees established with automatic withdrawal. They also indicated that there were problems when interest rate and monthly installments change, requiring a great deal of staff time to resolve.

**Additional loans.** As principal reductions occur, all of the building societies allow borrowers to take additional loans for repairs or other purposes, up to the original amount committed to that borrower. The secondary market investor or institutional lender expects amortization to occur at a certain rate, and most likely would not want the loan amount to increase in this manner, even though it does not exceed the original loan amount.

**Default servicing.** All of the building societies have prudent collection procedures. They contact the borrower early in the default, thereby increasing the likelihood that the borrower will be able to bring the loan current. They send reminder notices, then stronger letters, and send these letters in appropriate timeframes. As many of the borrowers (mostly the low income borrowers) do not have telephones, they have used innovative methods to have face-to-face meetings with the borrowers to discuss the delinquency and obtain a commitment for payment.

Thought should be given as to ways to mitigate the rising delinquency risk, as noted above. Improved data analysis capabilities might allow for a better assessment of the risk. Thus, if it is not currently being done, the building societies should stratify the delinquency statistics by the following variables: interest rate, year of origination, income level, and loan-to-value ratio. Also, the development of a secondary market may provide an impetus to enhance the existing credit bureau system in Zimbabwe. If lenders reported mortgage data on a monthly basis for all loans serviced, this would provide another tool to encourage borrowers to protect their credit rating by making payments as agreed.

**The Value of Servicing.** With the development of the secondary market may come a new source of income: servicing fees. In the U.S. many lenders earn a large portion of their profits on their servicing portfolio. For this reason, it will be important to build on the already good servicing procedures that have been developed in Zimbabwe. To this end, the following recommendations are offered:

### **Servicing Recommendations**

- Procedures manuals should be developed for the key servicing functions, and distributed to all staff members and updated regularly.
- Additional Management Information System reports should be developed to monitor the performance and trends of the portfolio. These should be produced regularly and distributed widely.
- Performance standards and established benchmarks should be developed for the key processes (i.e. delinquency statistics, account reconciliations, response time to customer inquiries).
- The cost of servicing per loan should be determined. This will be important in determining a fair and equitable service fee to be paid by the secondary market institution to the servicer. (Mortgage Bankers of America has a good model).

### **3.4.3 Standardization**

By originating loans based on standardized guidelines and documentation, the primary lenders can choose to keep the loan in their own portfolios or decide to sell the loan to the secondary

market at a later date. Almost all loans originated in the U.S. are in compliance with the guidelines developed by the secondary market, for this very reason.

Standardization of the underwriting and servicing guidelines and documentation can enable a housing finance system to reduce the risk both to the primary and secondary market lender, and potentially increase profitability. The underwriting criteria should reflect the best of traditional and evolving concepts of sound underwriting. Securities with similar characteristics can be created, analyzed, and valued much more easily if the guidelines are fairly homogeneous. Currently, the underwriting guidelines are very similar amongst the building societies. However, an evaluation should be made of the appropriateness of the various underwriting standards. This should include in-depth research of mortgage performance to determine the relative importance of underwriting factors in an attempt to distinguish good credit risks from poor ones. This analysis will provide data to make informed decisions to modify or create new guidelines and the data will be integral to the development of a secondary market.

As noted, the underwriting documentation is fairly standard in Zimbabwe. It should not be a difficult task to agree upon standard forms that would meet the needs of all of the participants, at least for the Valuation Report and the Loan Application Form. The fact that the evaluators are employed by the building societies should make the job even easier. Standardization increases the efficiency of the underwriters and evaluators, as they know exactly what information should be included on the forms.

Standardization of the servicing guidelines and documentation is necessary to maximize the benefits of a computer system. Many of the functions involved in prudent servicing can be automated. As it is frequently mentioned, one barrier to increasing the number of low income loans is that it costs more to service a low income loan (average overhead cost of 4.5%) than a high income loan (average overhead cost of 2.5%). By standardizing and automating many of these functions, this difference might be reduced.

One of the recent evolutions in the housing finance system in the U.S. is the very active market that has been created for buying and selling the servicing rights to mortgages. Loans sold to the secondary market carry a higher premium. This may be the logical outcome of a maturing secondary market in Zimbabwe. This is dependent on standardized servicing practices.

#### **3.4.4 Automation**

**Computer Hardware.** With the exception of ZBS, all of the building societies have made a substantial investment in computer hardware. Most transaction processing is automated with real time (telephone) links from branches and ATM's to corporate mainframe computers. The three computerized building societies utilize mainframe computer systems of fairly recent vintage, the capabilities of which (memory, storage, and processing) can be expanded as needed. We did not get a "percent of system capacity estimate;" however, the current

hardware investment is a good foundation for the processing requirements required by a secondary market.

ZBS is currently in the process of developing a requirement plan for the purchase and installation of data processing equipment. If ZBS envisions participating in a secondary market and/or securitizing their mortgage portfolio, this is the best time to plan for the additional computational capacity needed.

**MIS Reporting.** While the hardware base in the building societies is good, the management information reporting capabilities seem to be highly variable. As has been discussed above, none of the building societies currently has the information nor the management reports that would be required of an institution that actively securitizes its mortgage portfolios.

### **Recommendations**

There are four main areas in which the building societies must concentrate if they are to develop management information systems for operating in a secondary market: proper loan-level information and transaction histories; robust mortgage database management system; management reporting for control and ad hoc analysis; and maintenance of a highly trained systems and analysis staff.<sup>8</sup>

**1. Information Required for Analysis of the Mortgage Portfolio.** First, and most important, the building societies must store, on their computer systems, detailed information on each mortgage. At a minimum, the following information must be stored:

1. Loan Parameters
  - Current loan balance
  - Original loan balance
  - Current property value
  - Original property value
  - Loan-to-value ratio based on current value
  - Date loan started amortizing
  - Original term of the loan (in months)
  - Current date (day data file was extracted)
  - Remaining term of the loan (in months)
  - Original borrower payment
  - Current borrower payment
  - Payment history (usually kept in the transaction log)

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<sup>8</sup>It should be emphasized that the implementation of a successful information system is contingent upon the proper sizing of hardware to match the new capacity requirements (in terms of memory, CPU and storage). As was noted both CABS and Founders have a good foundation for hardware expansion; no assessment was made of the Beverley system.

2. **Interest Rate Information (annual values);**
  - Original interest rate
  - Current interest rate
  - To what index is the interest rate tied?
  - Margin (spread over the index rate)
  - How frequent can the mortgage adjust
  - Maximum interest rate adjustment per adjustment
  - Maximum interest rate (interest rate cap)
  - Interest rate history (usually kept in transaction log)
3. **Delinquency Information**
  - How many payments are currently in arrears
    - Number of times loan has been 30 days delinquent
    - Number of times loan has been 60 days delinquent
    - Number of times loan has been 90 days delinquent
    - Delinquency history for each loan (usually kept in the transaction log)
4. **Borrower Information**
  - Borrower Income
  - Gender
  - Age
  - Loan purpose (first mortgage? Subordinate liens?)

In addition, the building societies must insure that the information entered and maintained is of the highest quality. This can be achieved by validation of system inputs by loan processors, periodic management reports and periodic information audits based on an appropriate loan sample.

**2. Mortgage System Software.** Second, the building societies must have the capability (via a robust database system) of retrieving data, down to the loan level, in a format that can be subject to subsequent analysis. Such a system would require the ability to easily and quickly submit queries to the data base and send the output to subsequent users, typically in the form of electronic files.

**3. Reporting.** The building societies should expand the system of periodic reports for control, analysis, investor reporting and loan delivery. Control reports would allow management to monitor the performance of their mortgage portfolio; specifically, these reports would indicate characteristics of the portfolio cash flow including duration, defaults, prepayments, liquidity, and pricing vis à vis the market.

The reporting system should also have the capability of producing ad hoc reports for analysis and reporting. Of particular importance if the institutions securitize is the ability to stratify portfolios into pools of mortgages with similar characteristics. Specifically, the reporting and analysis system should be able to group pools of mortgages with similar maturities and interest rates as mortgage homogeneity is a required attribute for a securitized loan pool. Once pools

of loans have been identified for securitization loan delivery reports must be generated. These reports will vary based on the type of secondary facility that is developed in Zimbabwe.

**4. Staffing.** In order to maintain the management information systems, the building societies must hire, and retain, a core of competent staff that can maintain all facets of the management information system. It is *particularly important* that the staff be able to respond quickly to changing information needs and ad hoc information requests (e.g., requests for information on the collateral pools could come from investors, rating agencies, the government or a secondary market facility). This implies that among the MIS staff there needs to be highly trained programmers who know the mortgage business as well as the mortgage software.

MIS staff can be roughly split into database operations and portfolio analysis. The database operations staff are programmers who are responsible for the maintenance of data integrity and the provision of raw information. As was mentioned, they should have complete facility with the database software and be able to process information requests in a timely manner. The portfolio analysis staff should be able to process all information requests from the raw data. A typical analyst will be comfortable with third or fourth generation reporting and analysis software (e.g., SAS, SPSS, C or COBOL) and the latest spreadsheet technology.

### Summary

- Information systems are generally good, but given the demands of SMF and SMM, will need expanding.
- Current reporting systems will also need improvement in order to accommodate SMF or SMM.
- Although current loan-level information is not sufficient for SMF or SMM, it would not be prohibitively expensive to start adding additional information on a go-forward basis. It may not be necessary to fill in the data for old loans as they are currently not securitizable.
- In general, building societies are having a hard time retaining qualified Data Processing personnel. Building Society management should make every effort to support and retain these staff given the competitive market for DP professionals in Zimbabwe.

### 3.5 Legal and Administrative Framework

**Land Delivery and Titling and Enforceable Property Rights.** Zimbabwe is fortunate in that its land registration system is well-developed and, until the 1980s, worked quite well. Unfortunately, the system now is extremely overloaded, particularly with regards to the examination of survey documents by the Department of the Surveyor-General. The system is manual; the registrars office is understaffed and short of funding; and few trained surveyors

remain in government employment. The agencies responsible cannot meet the demands placed upon them which seriously impedes land delivery and ultimately, housing finance. In the medium to long-term this situation will have serious effects on the housing finance system and could lead to unregistered transactions. If purchasers cannot establish clear title and if lenders cannot be sure of their lien position, the conditions for collateralized lending and thus the basis for housing finance breakdown. Moreover, a successful initiative to increase the flow of funds to housing would only prove to be inflationary (certainly not the intended goal) if this problem cannot be resolved. USAID and many others are working to make improvements in this process.

**Ability to Transfer Ownership of Loans.** Mortgages are saleable, but the government charges a stamp duty of 3% on sale (cession). When combined with other fees and taxes, the cost of transfer can be as high as 5% on smaller (low income) mortgages (the fees are fixed so the percentage declines with the size of the loan). This is a significant source of revenue for the government. These fees would be prohibitive if charged at the time a loan was sold or securitized in the secondary market: the spreads on these instruments are too thin to support this type of fee. We are not recommending the government reduce or abolish the fee paid at the time the original mortgage is made, only that they preclude it from being charged **again** at the time of sale to the secondary market. Our analysis suggests that with this preclusion, government revenue will not decline, and will actually increase, due to the increased number of mortgage transactions at the primary market level.

**Foreclosure.** In the past, the foreclosure and auction system has worked well. The procedures are well established in law and practice. Recently, however, there is a perception among building societies and potential investors that political interference has damaged the foreclosure process. In July 1994, under the provisions of the Presidential Powers (Temporary Measure) Act, the government decreed that prior to a foreclosure sale, the Secretary for Justice, Legal, and Parliamentary Affairs must consult with the Secretary for Public Construction and National Housing, reviewing individual cases to determine whether they were suitable for coverage under the National Housing Fund. If the Justice Secretary determined that the sale would cause undue hardship to the consumer, he could stop the sale. The building society or other creditor would then be paid in full by the National Housing Fund, and the borrower would arrange a payment plan with the National Housing Fund to pay off the debt.

Although these measures were temporary and were subsequently modified (building societies report that the system has for the most part returned to normal), the long-term implications of this action are clearly negative: potential investors now perceive a high degree of political risk in mortgages. Also, the government may have sent an inopportune signal to the borrowers, giving them hope that they would be bailed out, which in reality happens in only a small number of cases (and not generally for the low income borrower). So that perceptions among the consumers, building societies, and potential investors can be changed, it will be important to gain a commitment from the government that they will not pursue this type of interference in the future.

In general, every effort should be made to work with the borrower to bring the loan current. However, if available avenues have been exhausted, foreclosure is the only option. Experience in Zimbabwe shows that 90 percent or more of the loans are brought current during the foreclosure process (sometimes during the auction's last hour!). Once a property goes into foreclosure and is auctioned by the sheriff, the concerned building society will always make a bid equivalent to the amount outstanding on the loan. This is standard procedure. The societies stated that, due to the high demand for housing, (particularly in the low income areas) disposing of the properties at an acceptable price has been relatively easy. If they cannot obtain the price they want, they hold it in their assets.

### **3.6 Overall Summary**

The importance of housing and mortgage lending to a country's economy is irrefutable. Housing construction and related activities such as sales, financing, and furnishings, all provide jobs and overall economic growth. Considering the magnitude of the demand for housing in Zimbabwe, it is imperative that existing government resources be channeled to the most deserving families, and policies be enacted that will allow other private sector participants (such as commercial banks or mortgage bankers) to play a role in housing finance.

Recapping the information in this chapter, we have identified the following strengths and weaknesses of the existing primary market in Zimbabwe:

#### **Strengths**

- Zimbabwe has sophisticated housing finance institutions.
- To a large extent, mortgage origination documents are already standardized.
- Underwriting criteria is basically uniform, although some minor improvements are needed.
- Zimbabwe's legal framework allows for foreclosure within a reasonable timeframe.
- Loan servicing policies and procedures are prudent.
- A positive credit culture has kept unnecessary delinquencies to a minimum.

#### **Weaknesses**

- The special circuit system limits the availability of housing finance.
- The playing field is not level.
- Interest and deposit rates are at below market levels.

- Existing computer/technical systems need to be upgraded so that they can provide better loan level detail and improved information management. These data are necessary for securitization.
- several aspects of building society mortgage products and procedures could lead to difficulties in securitization of a pass-through security: (1) variable rates are administered rather than tied to an index; (2) the approach to amortization, which prepays the loan in fewer years than the stated term, makes calculation of the weighted average term difficult; 3) capitalization of the interest due, and other charges, many require special bookkeeping for securitization; (4) the practice of taking on additional loans may not be compatible with securitization.
- Loan payments and terms are often restructured when foreclosure may be more appropriate.

In our opinion, unless the GOZ and others marshal the policies needed to address these weaknesses in the primary market, the absence of a level playing field and market-based housing finance system would preclude the creation of a viable secondary market in Zimbabwe.

Finally, as has been noted, analysis of the loan level data for the building societies will yield additional, and more specific, conclusions which will be discussed with each building society separately.

## **4.0 THE CAPITAL MARKET IN ZIMBABWE: POTENTIAL INVESTORS IN MORTGAGE-BACKED ASSETS**

### **4.1 Overview of the Capital Market**

Zimbabwe has a relatively well developed capital market, especially in comparison with other countries in Africa and many other developing countries. There are a fairly large number of institutional players, a high level of sophistication in many of their activities, and, until recently, a reasonably broad range of maturities available in government stock.

On the other hand, further deepening of the capital market faces some formidable constraints. Development has been constrained by the dominance of government stocks and the very limited number of other debt instruments. Government's directed capital flow policies via the prescribed asset requirements constrain investor choice. Furthermore, given the limited number of debt instruments, opportunities for developing a broad range of risk assessment and underwriting skills have been limited. In this context, the introduction of alternative long-term instruments, such as mortgage bonds or mortgage-backed securities, could be quite valuable in stimulating capital market development.

The combined influence of Government's deficit spending and the current macro-economic environment has resulted in an inverted yield curve -- that is, short-term rates exceed long-term rates. This is a somewhat misleading description, however; in fact, there are almost no long-term debt instruments now being issued. The most recently issued Government stocks are of medium term (3 to 6 years).

The main investors in the capital markets are the pension funds and insurance companies. The Post Office Savings Bank (POSB), which invests heavily in Government stocks, is also a major player. The National Social Security Administration, NSSA, which began taking contributions in 1994, will also emerge as an important player. Discount houses act as intermediaries and market makers in the capital market; however, they do not hold large volumes of government stocks because of their low capitalization. Banks and merchant banks play a limited role, as they tend to lend primarily to corporations.

As noted, capital market deepening in Zimbabwe has been constrained by a number of factors. First, the period of low and controlled interest rates preceding the structural adjustment program allowed corporations to borrow at favorable rates directly from banks. There was therefore little incentive for issuing long-term corporate bonds. Secondly, the high interest rates and inflation that have characterized the past five years have made long-term corporate bonds prohibitive. Thus, as noted, skills in the analysis of long-term instruments are scarce as a result of the narrow focus on government stock.

Secondary trading is not well developed, as most institutions tend to hold the government stocks to maturity. The dominance of Government stocks and the prescribed asset requirement limit both the incentive and the ability to trade. Thus, at the present time, it is felt that

pension funds and insurance companies are experiencing problems finding attractive investments for matching long-term assets and liabilities.

#### **4.2 Potential Investors in Secondary Mortgage Market Instruments**

Worldwide, insurance companies and pension funds are major sources of long-term funds for investment in residential mortgages. In the United States, these investments now occur most frequently through secondary mortgage market transactions, as investors hold the mortgage-backed securities and other assets of the secondary market institutions (Fannie Mae, Freddie Mac, and Ginnie Mae). In Europe and the United Kingdom, such investors frequently hold the debt of individual institutional lenders, including banks, mortgage banks, and building societies.

The advantages of investing in mortgages, whether directly or indirectly through a secondary market, have been amply demonstrated over time in many countries. The reasons are straightforward. First, investors can match long-term assets with long-term liabilities. Secondly, residential mortgages have proved their stability and long-run value; mortgage-backed securities, for example, trade at about 1 to 1.5 points above comparable Government debt in the United States and now exceed Treasury obligations in total value. And thirdly, mortgage debt has proved to be a liquid investment; secondary mortgage obligations in the United States are actively traded.

**Institutional Investors in Zimbabwe.** As noted above, the institutional investors consist of pension funds, insurance companies and, beginning this year, the National Social Security Authority (NSSA). Within insurance companies, one should distinguish life assurers, who invest in long-term assets, from short-term insurers who invest short-term. The biggest life assurers are Old Mutual, First Mutual, Fidelity Life and Southampton. It is also important to note that there is a close link between pension funds and insurance companies. Most pension funds are managed by the insurance companies, although there are a number of independent or self-managed pension funds such as the Mining Industry Pension Fund, National Railways, PTC, and the Local Authorities Fund.

Insurance companies are also closely related to building societies. For example, CABS is a fully-owned subsidiary of Old Mutual while Founders is linked to Southampton. In this regard, the insurance companies have traditionally provided various forms of support to building societies.

**Current Portfolios.** At the present time in Zimbabwe, the institutional investors have almost no assets in residential mortgages. Pension funds and insurance companies have sought other types of assets, primarily Government stocks, commercial properties, and equities. Mortgage loans represent a minuscule portion of their assets and are primarily the obligations of their employees. There are several reasons for this situation, including the macro-economic environment, the pressing need for Government borrowing, and the low returns offered by residential mortgages relative to government stocks under the current framework of special circuit lending.

The market value of the assets of the insurance companies and are estimated to be about Z\$14 billion. The largest institutional investor, Old Mutual, has assets of nearly Z\$11 billion (in market value). Table 4.1 provides an approximate distribution of assets representative of insurance company holdings; both market and book value are presented.<sup>9</sup>

TABLE 4.1  
REPRESENTATIVE DISTRIBUTION OF INSURANCE COMPANY ASSETS

ASSET TYPE	BOOK VALUE (percent)	MARKET VALUE (percent)
GOVERNMENT STOCK	40.3	29.1
MUNICIPAL BONDS/OTHER PRESCRIBED ASSETS	14.2	11.2
PROPERTY	17.2	23.5
EQUITY	13.2	24.4
DEPOSITS	7.4	6.0
DEBENTURES	5.9	4.9
OTHER	1.8	0.9
TOTAL	100%	100%

As already indicated, insurance companies and pension funds are required to hold at least 55% of their assets in government stocks. As a result, government stocks account for almost exactly 55% of the book value of their portfolios. Note however, that in terms of market value, the proportion held is considerably less. The balance of their assets are primarily in equities and property, and again there are major differences between book and market values. Participation in equities is limited because there are only about 60 companies listed on the Zimbabwe Stock Exchange. Company bonds are limited and underdeveloped. Given these constraints, institutional investors have tended to invest in commercial and industrial properties. As noted, residential loans are generally limited to staff and constitute a very limited percentage of the portfolio (for example, First Mutual's house loans are 0.9% of book value and 0.7% of market value).

### 4.3 Overview of Government Stock Issuances and Comparative Rates of Return

**Government Stock.** The government stock market has grown as a result of a need to fund large fiscal deficits. Total government stocks now outstanding are estimated at \$9.6 billion, the majority of which is currently held by pension funds and insurance companies. Prescribed assets include government stocks, municipal stocks and parastatal stocks. The prescribed asset

<sup>9</sup>Table 4.1 is derived from information obtained from Old Mutual (as of June 1995) and First Mutual (as of August 1995) and is an approximate weighted average of the information.

requirement has provided government with a captive market for its paper. The table below shows government stock issues over the last five years:

TABLE 4.2  
DISTRIBUTION OF HOLDINGS OF GOVERNMENT STOCK  
(\$Z million)

YEAR	BANKS	BUILDING SOCIETIES	POSB	INSURANCE COMPANIES	PENSION FUNDS	TOTAL
1990	271.9	138.5	207.8	116.4	420.2	1240
1991	213.7	47.3	322.8	220.4	148.3	979.6
1992	4.8	--	135	352.4	182.7	705.8
1993	89.7	--	25	501.8	301.9	1007.5
1994	42.9	20.4	115	799.7	222.8	1305.6

Table 4.2 indicates clearly the extent to which insurance companies are now funding the Government. The increase in holdings between 1990 and 1994 was nearly six-fold for insurance companies. At the same time, banks and building societies decreased both their absolute and relative shares of Government stock holdings. The participation of POSB has also declined.

Investors consider that the prescribed asset requirement places constraints on their portfolios. As an indication of their unwillingness to invest to this level in government stocks, some pension funds have tended to enter into buy-back arrangements with discount houses. Stocks are purchased to meet the prescribed asset requirement just prior to reporting to the Registrar. After reporting, the funds deliberately reduce their portfolio of government stocks.

Currently, government stocks are valued by discount houses. Yields on government stocks are closely correlated to short-term money market rates and expectations regarding inflation. Given that inflation has generally been above 20% during the last two years, yields on government stocks have been between 21% and 27% for three to seven year stocks. The longest term government stock is 18 years and has a yield of 18.5%. Thus, as noted, the yield "curve" (the distribution of maturities is too thin to describe a curve) is inverted. During the past year, the government has tended to issue shorter term stocks due to lack of investor interest in long term investments and to minimize interest costs in the long-term. Table 4.3 lists the stock issues which have been undertaken during (calendar year) 1995:

TABLE 4.3  
RECENT ISSUES OF GOVERNMENT STOCK

ISSUE DATE <sup>10</sup>	TERM	COUPON	AMOUNT RAISED
1/95	6 YEARS	24 %	Z\$638 million
2/95	4 YEARS	26 %	Z\$201 million
3/95	3 YEARS	25 %	Z\$484 million
4/95	5 YEARS	22 %	Z\$83 million
5/95	4 YEARS	24.5 %	Z\$772 million

The five year stock issue in 4/95 was rejected by institutional investors because the return was considered low. It is important to emphasize that even though the yields are relatively high, institutional investors purchase government stocks at least partially to fulfill the prescribed asset requirement. This explains why the stock issue of 2/95 which had a coupon of 26%, raised much less than the stock issue in 5/95, which had a lower coupon. Investors had invested heavily in the stock issue in January and were relatively uninterested in increasing their holdings the following month.

To date, the Government has raised \$1.3 billion since the beginning of the 1995/1996 fiscal year in July (the issues of 3/95, 4/95, and 5/95 total \$1.34 billion). The domestic borrowing target for the fiscal year is reported to be \$Z4 billion, which is in line with previous funding levels.

In addition to stocks, the government issues treasury bills with varying maturities between 30 days and 90 days. Yields are currently about 26% to 27% for these bills. A tender of 90 day Treasury bills closed on November 23; the average rate of allotted tenders was 27.3 percent.

### **Municipal Stocks**

The cities of Harare and Bulawayo are the only local authorities that are permitted to issue stocks. The stocks also qualify as prescribed assets. The stock issues have tended to be small and irregular. Municipal stock yields exceed government stocks by between 0.5% and 1.0%. The longest maturities for Harare and Bulawayo are 15 years and 12 years, respectively. The amount in issue for Harare is \$352 million, while Bulawayo has \$139 million outstanding. The two municipalities have not issued stocks recently because of the high interest rates. However, in response to pressures to finance its deficit, Harare is reportedly now planning to float a new bond issue.

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<sup>10</sup> Issues are noted according to stock number.

## **Parastatal Stocks**

ZESA, ZDB and AFC have issued stocks in the capital market. ZESA stocks in issue amount to \$234 million and the longest maturity is 12 years. ZDB bonds have varying maturities between 3 and 5 years. The amount in issue is \$90 million. The AFC has recently issued two 5 year bonds which raised \$250 million.

## **Corporate Bond Market**

Zimbabwean corporations have tended to avoid issuing bonds because of high interest rates. However, recently, a number of companies have indicated that they intend to issue bonds should interest rates decline to about 20%.

### **4.4 The Willingness to Invest in Residential Mortgages**

While the prescribed asset requirement is a constraint on institutional investors, the shortage of alternative long-term instruments has also been a constraint. Alternative long-term instruments would provide institutional investors with a diversification opportunity provided that the asset is competitively priced and secure. The participation of institutional investors in a secondary market instrument will depend on the following types of factors:

(1) **Political Risk.** Institutional investors in Zimbabwe have tended to be risk averse. They have indicated that they are concerned with Government interference in the housing market, especially with regard to foreclosure and interest rates. Potential investors repeatedly stated that previous government delays in allowing building societies to foreclose on mortgage defaulters makes mortgage related securities risky and unattractive to institutional investors. The control of mortgage rates by government adds to the riskiness of investing in housing finance.

In order for institutional investors to invest in mortgage-based instruments, they appear to need much greater assurance that the Government will not interfere with housing finance indirectly or directly. As has been discussed in chapter 3.0, the Government is now exercising the right, in cases of hardship, to block foreclosure sales. However, even though the policy is intended to be benign from the viewpoint of the creditors -- that is, the National Housing Fund is to repay the lender in full -- the potential investors with whom we spoke still appear to need more assurance regarding risks from political interference.

Thus, if this foreclosure policy is to remain in effect for some time, Government and the building societies together will need to reassure the capital market that the policy operates smoothly, without delay, without political favoritism, and so forth. To forestall investor concerns, guidelines must be established for defining hardship; estimates made of the possible magnitude of debt assumption by the National Housing Fund; and budgetary contributions made to the Fund accordingly. **Maintaining and strengthening the good credit culture in Zimbabwe is worth untold sums, as other countries in Africa and elsewhere can testify.**

(2) **Credit Risk.** Somewhat surprisingly, commercial and industrial properties are now viewed by lenders as less risky than residential properties. This is generally not the case worldwide. In addition, our analysis suggests that mortgages are performing fairly adequately. Thus, it appears that an information gap persists with regard to residential properties; this gap also appears to be colored by issues raised in the discussion above regarding political risk, but is not limited to that. Clearly, institutional investors will want to assess the quality of the mortgage portfolios and the strength of the institutions issuing the securities. Because there has been little opportunity to use them, information and techniques for pricing and risk assessment are not common. Both potential lenders and potential issuers require more information regarding what aspects of a mortgage portfolio are important in pricing, how these calculations are carried out, and how various features enter into determination of relative price. Calculations of arrears, defaults, and prepayments, for example, as a function of borrower and loan characteristics, must be readily accessible from the management information systems of the lenders.

(3) **Return.** Institutional investors have indicated that they would only invest in residential mortgage-backed securities if the return is equivalent to that on similar investments (and that the risk factors have been adequately addressed). Given the current mortgage rates, institutional investors would certainly not invest in mortgage instruments. They are very aware of the affordability and default problems associated with raising mortgage rates above the current levels on the existing portfolios. However, should inflation and interest rates decline, mortgage rates could gradually adhere to market levels, and mortgage backed instruments could become more attractive. As noted below, pricing relative to Government stocks and other assets will require careful assessment.

(4) **Benchmark Pricing of Mortgage-Backed Instruments.** The pricing of secondary mortgage market instruments will be influenced by yields on government stocks, inflation expectations, and short-term money market rates, in addition to the risk and return characteristics of the underlying mortgage assets. At present, given that recent government stocks with a maturity of 4 to 7 years have a yield of roughly 24 to 26 percent, and that a recent issue of 90 day Treasury bills yielded 27.3 percent, a "guesstimate" suggests that a secondary market instrument would have to be priced at least two or more points higher than comparable duration government stock. In the United States, the yield on mortgage backed securities is usually about one to one and one-half points above comparable Treasury bills. This narrow relative spread will take some time to achieve in Zimbabwe, or indeed nearly anywhere else in a start-up situation. Since current lending rates in Zimbabwe are approximately 5 to 9 points below a hypothetical benchmark, consideration of developing mortgage-backed instruments must await decontrol of interest rates and development of a competitive mortgage portfolio. Establishment of risk-based yields in comparison with government stocks and other relevant instruments can then be addressed.

## 5.0 FEASIBILITY OF A SECONDARY MORTGAGE MARKET IN ZIMBABWE

Chapter 1.0 posed the two main questions addressed in this report: whether a secondary mortgage market is feasible in Zimbabwe and whether its creation would assist the development of housing. This chapter summarizes the analyses of the various aspects of the feasibility issue. Overall -- based on our assessment of the primary market, the capital market, and legal and regulatory infrastructure -- a secondary market is ultimately a feasible and beneficial goal. However, a major restructuring of the primary market must take place prior to any consideration of secondary functions. Once this is accomplished, several additional regulatory reforms would be necessary as well as certain modifications to lender procedures. These are not major barriers, however, and should not pose many problems.

### 5.1 Primary Market

**Mortgage Rates.** As has been discussed, the major stumbling block to development of a secondary mortgage market in Zimbabwe is the below market interest rate on mortgages. Mortgage interest rates, for both high and low income lending, are well below all other loan and bond rates. Under the special circuit established for housing finance, a combination of formal and informal controls is used to determine the rate structure for both deposits and loans. The rates for low income lending are subject to a formal ceiling rate; rates for high income lending are established informally by the Government in consultation with the building societies. Among the building societies there is competitive variation in the rates; however, all rates are still well below those of Government stocks and other instruments.

Table 5.1

Category	Rate (%)
Residential Mortgages	18.5 - 22.5
Commercial Mortgages	27.0 - 32.5
Short-Term Treasury Bills	26.0 - 27.3
Medium-Term Government Stock	24.0 - 26.0

Currently, building society mortgage rates range from 18.5 to 22.5 percent. As shown in Table 5.1, these rates, as of June 1995, were less than all other major investment alternatives. *This rate structure means that mortgage loans would not be an attractive asset for investors. Also, it implies that the existing portfolios of the building societies are not saleable without a significant loss.*

**Lender Capabilities.** The primary market infrastructure in Zimbabwe is well developed and, with some changes, supportive of a secondary mortgage market. Origination procedures, documentation and underwriting guidelines of the lenders are well developed and somewhat

*standardized*. Most lenders are computerized and the systems can support the future development of a secondary market. One issue that would need to be addressed is the degree of *centralization* in data and servicing. Two of the societies have centralized systems that would be capable of providing comprehensive and up-to-date investor information. The other two are decentralized and would have to make some changes in their systems to support investor reporting needs. *Collection procedures* appear to be adequate and standardized but there are some inconsistencies and gaps in the reporting of information.

The societies will have to *improve the information* available on their portfolios in order to provide data needed by investors to assess risk. For example, they do not have a clear picture of the average life or prepayment experience of the portfolios, an important element for addressing the cash flow risk of mortgage investment.

**Legal and Regulatory Framework.** The legal system supporting housing development and mortgage lending is well developed in Zimbabwe. However, several factors are diluting its effectiveness: delays in land registration, perceived intervention in foreclosure, and the stamp duty on mortgage transfers. If not corrected, these problems will, respectively, continue to deter lending in the primary market, dampen the attitude of potential investors toward mortgage backed products, and add to the cost of secondary market instruments.

The *land registration system* is unable to process the required volume of transactions in a timely manner due to budgetary and staffing inadequacies. Unless this situation is rectified, it could be counterproductive to increase the flow of funds to the housing market. An increase in effective demand in the presence of housing supply constraints could exacerbate inflation. Also, an increase in lending without appropriate legal safeguards for lenders would be risky.

In the past, the *foreclosure* and forced sale system has worked well. However, current government policies on foreclosures, even though well intentioned, have created a significant negative perception about housing lending in the minds of nearly all the potential investors with whom we spoke. Government policy, as formulated, should have no negative impact on lenders, since the defaulted loans that become subject to Government review are to be fully paid by the National Housing Fund. However, an education campaign seems warranted, because the policy has created a perception of political risk (the risk of reduced returns due to political actions) – a risk that cannot be priced or quantified.

The *stamp duty* charged by the government on sale (cession) is a major impediment to the development of a secondary market. The stamp duty precludes the sale of existing portfolios. Although there may be methods of avoiding stamp duty on newly originated mortgages, the risk that a loophole could be closed would deter substantial up-front investment in mortgage sales or securitization vehicles.

**Regulatory Environment.** If a secondary mortgage market is to be created in Zimbabwe, the regulatory treatment of mortgage-related securities will have to be determined. The major issue is whether mortgage-related securities would be included in the prescribed assets definition. Investors report that their yield requirements for such securities would be

significantly lower if they are eligible for the prescribed category. This would be true if the prescribed ratio is a binding constraint or if investors perceive a degree of government support for mortgage securities if they are included in the definition.

The risk-based capital treatment of the securities must also be determined as well as whether they are liquid assets and eligible collateral for the central bank. If a SMF (lender) is created, the reserve requirement on its loans (for depository institutions) would have to be determined.

## **5.2 The Macroeconomic Environment and the Capital Market**

**Macroeconomic Environment.** As discussed in Chapter 1.0, the high and volatile level of interest rates complicates the introduction of a secondary mortgage market. Even if mortgage rates were at market levels, the current environment increases investor concern over credit quality and the potential for government intervention to the market. **However, creation of a secondary market is a long-term process. Thus, the current environment should not be viewed as a deterrent to beginning to develop the market.**

**Funds Availability.** Zimbabwe is fortunate in that it has well developed systems for the accumulation and allocation of long-term savings. The personal savings rate in the country is relatively high and the life insurance and pension sector is well developed. The recent creation of the National Social Security Authority (NSSA) may provide an opportunity to stimulate the development of a secondary market. NSSA began to take funds in 1994 and it is quite interested in "innovative" long term instruments. NSSA is required to place 20% of its assets in social infrastructure investments, a category in which mortgage securities could fit.

**Capital Market Infrastructure.** The capabilities of many of the institutional players in the capital market are extensive. However, the market is dominated almost entirely by government stock (gilts and semi-gilts) and is thus limited and narrow. As a result, skills in assessing and pricing risk have had a limited opportunity to develop. There are no consistent market makers due to a relative shortage of capital and product (most investors buy and hold). In this regard, a secondary mortgage market could stimulate capital market development by giving the market another high quality instrument in which to trade.

Based on this summary of the preconditions for establishing a secondary market, Chapter 6.0 presents our specific recommendations.

## **6.0 RECOMMENDATION FOR DEVELOPMENT OF A SECONDARY MORTGAGE MARKET IN ZIMBABWE**

### **6.1 A Strategy for Reform of the Primary Market**

A clear prerequisite for an effective housing finance system is a thriving and competitive primary market. Banks and other non-bank financial institutions should be free to act as mortgage originators as well as the building societies, so as to enhance competition and innovation. The playing field should be reasonably level to allow these institutions to compete. Funding can derive from both deposits and wholesale funds from the capital market, obtained either directly by primary market lenders, or via a secondary market facility, or both.

A key prerequisite for such a system is the market determination of mortgage interest rates. Without market determined rates, resources will not be allocated efficiently throughout the economy. Potential competitors will avoid housing finance and important sources of long term will be unavailable. Mortgage rates must become competitive with rates on government stocks for two reasons: (1) to bring more funds into the housing sector; and (2) to introduce the possibility of a secondary mortgage market.

**Is a Secondary Market Needed?** Chapter 2.0 described the potential benefits of secondary mortgage market in Zimbabwe. In brief, these benefits could include:

- an increase in the availability of long-term funds for housing;
- a decrease in the cost of mortgage credit through a more efficient allocation of risk;
- an enhanced competitive environment in the mortgage market, which can lead to somewhat lower rates and/or improved services and products; and
- an improvement in capital market structure through the addition of high quality, long-term securities.

However, without opening the housing finance sector to additional players, the extent to which a secondary market is a truly useful addition in Zimbabwe is open to question. Provided that existing institutions - both the building societies and the banks - are able to enter housing finance, and that new institutions, such as mortgage banks could emerge, a secondary market facility becomes increasingly useful.

If the market is not opened up, one or more of the existing building societies could simply access funds in the capital market directly or seek long-term funds or other assistance from their major shareholders, which include the insurance companies. Under the current circumstances, the time and effort spent in developing the secondary facility may not be worthwhile. Thus, our recommendations for a secondary market are at least partially predicated on desegmentation of the primary market. In concert with a competitive primary

market, a secondary market would allow increased access to funds, permit the development of mortgage banks, and provide high quality, long-term debt instruments which would stimulate capital market development.

*How does the government of Zimbabwe move towards such a system in the current macroeconomic environment?* Any move to raise mortgage interest rates to market levels would exacerbate affordability problems, lead to higher default rates, and create considerable consumer dissatisfaction and resistance. The answer must come from a coordinated strategy involving the government, the building societies and other institutions in the financial sector that is phased in over time. The are four major building blocks of this strategy are:

**Macroeconomic Stabilization.** Because housing is a large asset requiring long-term finance, high rates of inflation and interest are particularly troublesome. Thus, it is imperative that the Government implement the structural adjustment program to reduce government borrowing, inflation, and interest rates.

**Financial Sector Deregulation.** A distinguishing feature of modern financial systems is the integration of housing finance into the broader capital markets. In the Zimbabwean context this implies a gradual desegmentation of the financial sector, with banks and discount houses allowed to enter the mortgage market and building societies allowed to diversify into other lines of business. Over time the playing field between market participants should be level, for example, through equalization of deposit rates, of withholding rates on deposit interest, and phase-out of PUPs. Desegmentation will improve competition and efficiency in the mortgage market and encourage innovation in product design and improved customer service.

The Government is now committed to financial sector reform and at the current time is reviewing much of the pertinent legislation, including the Banking Act. We recommend, in addition, that the Building Society Act be reconsidered as soon as possible and in conjunction with plans for reform of the overall sector. The special circuit status of housing finance is incompatible with financial sector deregulation; its importance is such that dismantling of this is noted as a separate recommendation below.

**Gradual Decontrol of Mortgage Interest Rates and Building Society Deposit Rates.** As the government's structural adjustment program proceeds, market interest rates are forecast to decline. A simple way to decontrol mortgage interest rates is to not allow them to decline with government bond rates. After some period of time, mortgage and government interest rates will equalize and all controls can be dropped.

**Introduction of Alternative Mortgage Instruments.** High nominal interest rates significantly reduce the affordability of mortgage finance. The approach adopted in a number of other countries experiencing moderate to high rates of inflation is the introduction of alternative mortgage instruments. These instruments typically feature different payment and accrual rates with deferral of the payment of interest to later periods. Linking borrower payments to wages or income can help affordability while not forcing lenders to sacrifice profitability. As discussed in Appendix V, the Government can reduce the cash flow risk of

such instruments for lenders by guaranteeing the payment of any remaining outstanding balance at the end of 25 years.

## **6.2 Rationale for a Secondary Mortgage Market in Zimbabwe**

If the building blocks for a strong and competitive primary mortgage market are laid in place, should a secondary mortgage market be developed in Zimbabwe? If so, what are the steps necessary to create such a market?

A secondary mortgage market can improve the provision of housing finance in Zimbabwe. A secondary market could tap the relatively large pools of long-term funds in the insurance and pension funds thereby expanding the funds available for housing. Access to such funds can reduce the liquidity risk of lenders, increasing the supply of funds and lowering the risk premium for mortgage lending. A secondary market can also increase participation in the primary market from non-traditional lenders by providing such lenders with a deep funding source. A secondary mortgage market could also stimulate the domestic bond market in Zimbabwe. If successful, a secondary mortgage market could improve the revenue situation of the Government through stimulation of the housing market and by allowing a phase-out of PUPs.

## **6.3 Additional Recommendations to Support the Development of a Secondary Mortgage Market**

There are a number of steps, both short-term and long-term, that must be taken by the Government in conjunction with the building societies and other players in the financial market. In the short-term (i.e., during the next year) the following should be considered:

**Exemption of secondary mortgage sales from the stamp duty transfer tax.** This transfer tax would stifle the development of a secondary market. Lenders would have little incentive to sell mortgages if they are forced to take a significant loss upon sale. If lenders attempt to pass on the cost of the stamp duty to their customers it would exacerbate the affordability problem and reduce demand. Exemption of secondary mortgage sales from the stamp duty will not be a significant revenue loss for the Government. The current duty effectively precludes such transactions so there is little revenue generated. This recommendation does not effect the imposition of stamp duty on the initial mortgage registration (origination) which is the main source of revenue from the duty.<sup>11</sup>

**Definition of the regulatory treatment of mortgage-related securities.** The regulatory treatment of mortgage-related securities will determine their attractiveness to different classes

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<sup>11</sup> As a separate matter we note that a high stamp tax depresses the housing market and creates an incentive to not register mortgages or title transfer. The GOZ may be able to increase the revenue from the duty if it were set at a lower rate (e.g., encouraging prepayment or second mortgage loans). Also, the structure of the duty could be made more progressive in order to reduce the burden on lower income households.

of investors. In order to stimulate the development of a secondary mortgage market, the GOZ should consider the following:

(1) *Include mortgage-related securities in the definition of prescribed assets:* In the long-run, we would recommend elimination of the system of prescribed assets. Any system of directed credit precludes capital from seeking its "highest and best use" and reduces the efficiency of the financial system. In the short run, if the system of prescribed assets is maintained, mortgage-related securities should be included in the definition. Doing so would improve their attractiveness to institutional investors, increasing demand and reducing yield requirements. Including mortgage securities in prescribed assets is in keeping with the importance of housing to the economy and is a way the Government can signal its support for the sector without adverse budgetary implications.

To make this provision truly effective, a specific proportion or range should be established to determine the share of mortgage based products in the total for proscribed assets. Thus, for example, 10 to 20 percent might be suggested. The range should be developed by the Government (presumably by the Reserve Bank and Ministry of Finance), given the macroeconomic situation and need for Government borrowing at the time that mortgage backed instruments might be expected to be available. Since development of competitive mortgage based products must wait until decontrolled mortgage lending rates become market based, there will be a significant lag time; thus, today's borrowing requirements are not an appropriate guide. Nevertheless, a probable range could be suggested now to encourage investor interest in the secondary market concept.

Recent comments by the President suggest that the Government favors this suggestion. At the current time, Government plans to initiate discussions of this matter with the concerned institutions and authorities.

(2) *Specify the appropriate risk-based capital weighting for mortgage-related securities:* It is our understanding that pending banking reform legislation will introduce risk-based capital requirements for depository institutions in Zimbabwe. The Bank for International Settlements guidelines for risk weighting specify a 50% risk weight for mortgage assets. Mortgage-related securities are backed by such assets and thus should have the same risk weighting.

(3) *Include mortgage-related securities in the definition of liquid assets for banks and as eligible collateral for Reserve Bank borrowing:* These measures will increase the demand for such securities by banks. If a facility is created that acts as a lender, its loans should have a low reserve requirement to encourage use (as a lender of first resort and supplier of liquidity).

(4) *Invest in management information systems and standardization procedures necessary for secondary market transactions:* The information requirements for a successful secondary mortgage market are extensive and beyond the capabilities of most mortgage lenders today. In order to move towards a secondary market, lenders must be willing to improve the quality and quantity of information about their portfolios and be willing and able to share it with investors.

In addition, lenders should increase the standardization of their documents and procedures in order to reduce the cost of pooling and risk assessment in the future.

(5) *Continue to Improve the Land Registration System:* A cornerstone of a successful primary and secondary market is an accurate and efficient land registration system. The ability to establish title and ascertain liens on property is necessary to support both mortgage lending and mortgage sales and securitization. The staffing of the Department of the Surveyor- General and Office of Deeds must be increased and upgraded. A computerized system should be installed. These topics have been the subject of several other USAID initiatives.

## 7.0 NEXT STEPS

As noted in the introduction, this report is the first of a series of reports which will be prepared on the development of a secondary mortgage market in Zimbabwe. The consultant team will return to Zimbabwe following the review of this report by USAID, the Government, the building societies, banks, capital market institutions, and other interested parties. During the return visit, reports will be prepared on:

- Alternative Institutional Arrangements for a Secondary Mortgage Facility;
- Draft Proposals for Legislative, Statutory, and Regulatory Amendments to Permit Establishment of a Secondary Mortgage Market;
- Secondary Mortgage Market Implementation Plan.

As has been stressed in our recommendations, however, preparation of these types of implementation materials on secondary market operations and the legal framework is not salient until, and unless, a commitment has been made to timely reform of the primary market. Without this commitment, consideration of a secondary market is premature.

**Next Steps in Policy Reform for the Building Societies.** As has been discussed, Government is now reviewing a series of legislative acts pertaining to the financial sector. It is our understanding, however, that review of the Building Societies Act is not among the financial sector reforms currently being considered. In order to achieve successful deregulation of the financial sector, however, Government should consider reform of all pertinent statutes at the same time, in order to deal evenly with the development of an open and competitive financial sector. In order to develop a "level playing field", Government must dismantle special advantages and special circuits in a coordinated and comprehensive manner. By allowing the reform of the Building Societies Act to stand to one side while other reforms are introduced will perpetuate the circumstances which we have sought to remedy. In addition, if banks and other institutions are given permission to enter housing finance -- prior to granting building societies comparable rights to engage in other pursuits -- the societies may be placed in an untenable position.

We urge Government and the building societies to begin consideration of the specific recommendations of this report. It is not purposeful to continue development of the specifics of a secondary mortgage market without Government and the primary market institutions first making a commitment to reform of the primary market. Thus, in order to gain some forward momentum in the reform process as described here, we hope that Government and participating financial institutions will provide a written assessment of the recommendations in this report and a plan for moving forward with decontrol of rates and desegmentation of the market.

**Next Steps in the Establishment of a Secondary Market Facility.** Based on these critiques by Government and others, the team can then formulate a workplan to be addressed in our next

visit. A secondary market implementation process will require a number of policy actions on the part of the Government, a number of legislative changes, and a number of revisions or additions to the building societies' management information systems. One approach to the latter would be for the building societies to pool resources and form a task force to plan these activities. This is also an activity we can assist with on our return visit. In addition to the topics noted above, the team can also assist with development of alternative mortgage products, including alternative approaches to assistance for low income households.

As noted in Chapter 2.0, a secondary market can evolve through direct sale of mortgage pools by lenders to investors or through an indirect approach in which loans are sold to an intermediary that in turn sells securities in the capital market. An advantage of the indirect approach in Zimbabwe is that it would facilitate greater participation and competition in the primary market. New entrants to the market may have greater access to funds through a secondary market facility than through a direct sales approach as the facility would be substituting its credit and capital between the originator and investor. In addition, a facility may stimulate capital market development through higher volume issuance of standardized securities.

Appendix IV describes a variety of secondary market facilities and markets in operation throughout the world. A distinction is made between a secondary market facility and a true, full-fledged secondary market. Secondary market facilities, also referred to as liquidity or rediscounting facilities, exist in a number of countries; they are typically government owned or supported, although this does not have to be the case. Secondary facilities issue general obligation bonds in the capital market and use the proceeds to refinance the portfolios of the primary market lenders. This concept is simpler than that of a true secondary market.

In contrast, in a true secondary mortgage market, mortgage assets are sold and default risk is transferred to a third party. The United States has the only large secondary mortgage market in the world, with a number of specialized secondary market institutions (conduits), including Fannie Mae, Freddie Mac, Ginnie Mae, and strictly private conduits. While there are many benefits to this approach -- for example, smaller, relatively undercapitalized lenders can participate in the market -- it is more complex and time consuming to develop

The specifics of such a facility will be addressed in the next report if the GO and the major market participants agree to the other recommendations in this report. Thus, among the topics that need to be addressed are:

- whether a true secondary market is to be discussed or a simpler secondary market facility, and thus whether the facility is a lender or purchaser;
- the degree of government involvement, if any, in the facility;
- the type of instruments to be issued; and
- the need for third party credit enhancement.

We look forward to assisting Zimbabwe address these challenging issues and we express our warmest appreciation to the many persons who have assisted us in our understanding of the issues facing housing finance in Zimbabwe.

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## **APPENDIX I**

### **PREVIOUS RECOMMENDATIONS FOR REFORM OF THE HOUSING FINANCE SYSTEM**

Over the last several years, a number of proposed reforms have been presented for reforming the housing finance sector, particularly in order to improve the availability of funds to building societies. Government is now committed to financial sector desegmentation under ESAP. This appendix summarizes the policy reforms relevant to primary market reform suggested by these proposals.

#### **1) Privatization of the National Housing Fund**

In January 1992, USAID sponsored a study to examine the possibility of privatizing the National Housing Fund. However, the government rejected this proposal because it was felt that the NHF was an important institution for government participation in housing sector.

#### **2) Negotiable Certificates of Deposit**

In 1992, as part of the design of the Zimbabwe Private Sector Housing Programme Design, it was proposed that building societies be allowed to issue Negotiable Certificates of Deposit to ease their liquidity problems. This proposal was accepted by government and building societies have been issuing NCDs. However, because of the current high interest rates, funds raised through NCDs have not been used to finance housing. It is hoped that as interest rates decline, building societies would use this instrument to finance mortgages.

#### **3) Secondary Mortgage Market**

Several studies have proposed that a secondary mortgage market be created to increase the availability of funds to the housing sector. This proposal has been noted by the Government and building societies and is the subject of the current study.

#### **4) Financial Desegmentation**

As noted, desegmentation of the financial sector, in order to increase competition and efficiency in the financial sector, is now Government policy under ESAP. Proposed revisions to the Banking Act, currently underway, are one important aspect of this reform. Under the proposed act, banks would be allowed to provide mortgages in competition with building societies. As has been discussed in this report, reform of the Building Societies Act, and review of all legislation which impacts establishment of a level playing field, must also be undertaken as part of the desegmentation.

**5) Prescribed Assets**

It has been proposed that investments in building societies be made prescribed assets for pension funds and insurance companies. Recent comments by the President suggest that Government agrees with this recommendation in principle and is now prepared to initiate discussions.

**6) Blocked Funds**

The use of 4% blocked funds in funding building societies was proposed as a short term solution. This proposal was rejected by the government.

**7) Indexed Mortgages**

Indexed mortgages have been proposed to address the issue of affordability. However, most building societies have not been interested in these products. The Beverley Building Society has experienced considerable difficulties with a type of graduated payment mortgage.

**List of Relevant Policy Studies**

USAID (1994)	Zimbabwe Private Sector Housing Program Monitoring and Evaluation System
USAID (1993)	Zimbabwe Housing Finance Mobilization Study
USAID (1992)	National Housing Fund Study: An Examination of the Potential to Liquidate NHF assets.
USAID (1992)	Zimbabwe Private Sector Housing Programme Design: Financial Systems Analysis.
USAID (1990)	Requirements for the Issue of NCD's by Building Societies in Zimbabwe.
USAID (1989)	Finance For Low Income Housing in Zimbabwe

## APPENDIX II

### SPECIAL CIRCUITS FOR HOUSING FINANCE

Historically, housing finance has been provided through special circuits.<sup>1</sup> Special circuits are institutional arrangements designed to raise funds for housing outside the general capital markets. They involve the creation and support of specialized housing finance lenders (either government or private). The rationale for special circuits is either the conception that mainstream financial institutions will not provide funds for housing (e.g., because of the perceived risk of mortgage loans), that such funds will be too expensive (and thus not in character with the social importance of housing), or as an attempt to redirect financial sector resources away from housing to other, theoretically more productive sectors of the economy.

A distinguishing feature of a special circuit is a below-market mortgage interest rate. Such a rate is typically accomplished through a combination of tax preferences for the institutions and preferential treatment of their deposits (effectively allowing them to obtain lower cost funds). In the U.K. and U.S., housing finance specialists were exempt from corporate taxation.<sup>2</sup> In the U.K., building society deposits were tax advantaged. In the U.S. prior to the 1980s, deposit interest rates were regulated and generally below market (savings and loans were allowed a slightly higher deposit rate than commercial banks). In the U.K., mortgage interest rates were “fixed” by a cartel of building societies (through their trade group, the Building Societies Association) in consultation with the government.

*The inevitable result of a special circuit is a limited availability of mortgage funds.* Because mortgage rates cannot rise to market clearing levels to balance supply and demand, lenders must resort to non-price rationing. Typically this involves conservative underwriting guidelines and long waiting periods to obtain a mortgage. Because of their protected status (i.e., restrictions on the ability of other institutions such as banks to compete) special circuits are characterized by inefficiency and lack of innovation. This is often reflected in high operating cost ratios and lack of response in product design to changes in market conditions.

There are other disadvantages to special circuits as well. Someone in the economy pays for the below market rates on the loans. The someone may be savers, taxpayers and/or shareholders in specialist institutions. Below-market rates on savings may depress savings incentives, taxpayer support may create or exacerbate fiscal deficits and a below-market return to shareholders as

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<sup>1</sup> See Diamond and Lea [1992 a and b]. It is also similar to the pre-1980 U.S. savings and loan circuit.

<sup>2</sup> In the U.S., savings and loans were exempt from corporate income taxation until the early 1950s. After that time they were allowed a special bad debt deduction that effectively minimized their tax payment. The magnitude of the bad debt allowance was gradually reduced during the 1970s and 1980s to the point where it does not represent a significant advantage. In the U.K., building societies are mutual institutions (owned by their customers) and exempt from corporate taxation).

suppliers of capital inhibits the creation and expansion of housing finance institutions. There are also inevitable inequities in the allocation of funds. With non-price rationing, favored borrowers and borrower groups will receive privileged access to funds. Such funds are typically not allocated according to need (i.e., to low income households). Thus the incidence of the subsidy is often regressive. It often takes a large number of savers or taxpayers to support order one lucky borrower obtaining a below-market rate loan. Finally, such systems are costly to support, both in terms of the economy and the government.

Special circuits for housing finance were dismantled worldwide during the 1980s. The typical reasons were the onslaught of competition from other financial service providers, broader financial sector deregulation (i.e., abolition of capital and interest rate controls) and the cost of supporting the circuit. In the U.S., deposit rate regulation led to the creation of mutual funds that led to an outflow of funds from depositories and an elimination of the controls. Fiscal deficits and the costs of bailing out bankrupt thrifts led to a reduction and elimination of their tax preferences. In the U.K., deregulation of the banks allowed them into the mortgage market which led to the breakdown of the cartel and increased efficiency in operations. The need for additional capital and the desire for expanded powers led specialized housing finance institutions in Australia, South Africa, the U.S. and most recently the U.K. to convert to banks, foregoing the advantages of their special status.

**APPENDIX III  
SUPPLEMENTARY BUILDING SOCIETY DATA**

**Table 1**

**LENDING POLICIES OF BUILDING SOCIETIES**

**As of 11/95**

<b>POLICY</b>	<b>CABS</b>	<b>Beverley</b>	<b>FOUNDERS</b>	<b>ZIMBS</b>
a. Maximum LTV Ratio (%) <ul style="list-style-type: none"> <li>▪ low income</li> <li>▪ high income</li> <li>▪ USAID</li> </ul>	75% 75% 75%	75% 75% 75%	75% 75% 75%	75% 75% 75%  Must have 25% of property value in ZIMBS account before loan will be given
b. Maximum Repayment Period (# of years) <ul style="list-style-type: none"> <li>▪ low income</li> <li>▪ high income</li> <li>▪ USAID</li> </ul>	25 years 25 years 25 years  minimum 5 yrs	25 years 25 years 25 years  no minimum	25 years 25 years 25 years  minimum 10 yrs	25 years 25 years 25 years  minimum 1 yr
c. Current Interest Rate (%) <ul style="list-style-type: none"> <li>▪ low income</li> <li>▪ high income</li> <li>▪ USAID</li> </ul>	17.5% 20.5% 14.5%	18.5% 19% or 21.5% * 14.5  *loan originated prior to 3/93 19%, subsequent 21.5%  high income 24.25% if not owner-occupied and first loan  27% if not first loan	18.5% 20.0% 14.5%  high income 24.25% if not owner-occupied	18.5% 22.5% 10% 14.5%

<b>POLICY</b>	<b>CABS</b>	<b>Beverley</b>	<b>FOUNDERS</b>	<b>ZIMBS</b>
d. Maximum Ratio of Instalment to Gross Income of Borrowers (%) <ul style="list-style-type: none"> <li>▪ low income</li> <li>▪ high income</li> <li>▪ USAID</li> </ul>	25% 25% 30%	25% 25% 25%	23.5% 23.5% 23.5%  maximum 24.5%	Income x 2.5% Income x 2.5% Income x 2.5%
e. BS's Requiring Income verification during processing (All, Some, None of loans reviewed) <ul style="list-style-type: none"> <li>▪ low income</li> <li>▪ high income</li> <li>▪ USAID</li> </ul>	none none none	some some some	some some some	all all all
f. Loan Amounts <ul style="list-style-type: none"> <li>▪ Minimum</li> <li>▪ Maximum</li> </ul>	No minimum \$5m	No minimum No maximum	\$5,000 No maximum	\$5,000 No maximum
g. BS's Value Property by Valuation Agents (Yes or No)	yes - all employed by CABS	yes - all employed by BBS	yes - all employed by FBS	yes - all employed by ZIMBS
h. Prepayment Penalty Imposed by BS (Yes or No)	3 months interest if paid off within 12 months	3 months interest if paid off within 12 months	3 months interest if paid off within 12 months	If paid with 2-3 years will negotiate a penalty fee- will be significant
i. Centralized or Decentralized Origination Process	Centralized	Decentralized	Decentralized	Centralized
j. Purpose of Loan (%) <ul style="list-style-type: none"> <li>▪ Building/Construction</li> <li>▪ Purchase</li> <li>▪ Improvement/Extension</li> </ul>	Estimated: 20% 20% 60%	Estimated: 35% 35% 30%	Estimated: 25% 15% 60%	Estimated: 80% 15% 5%

<b>POLICY</b>	<b>CABS</b>	<b>Beverley</b>	<b>FOUNDERS</b>	<b>ZIMBS</b>
k. BS's Requiring Life Insurance (Yes or No)	Yes - high income and low income >\$35,000 50% of bond amount  Low income < \$35,000 pay .0012 of amount owed each month- CABS insurance	Yes - all loans 25% of bond amount	Highly recommended but not mandatory	Yes - all loans 50% of bond amount
l. BS's Requiring Fire Insurance (Yes or No)	Yes - increased by 20% each year	Yes - increased by 30% each year	Yes - increased by 18% each year	Yes - property inspected every year to determine adequacy of coverage
m. BS's Requiring Standard Documentation (Yes or No) <ul style="list-style-type: none"> <li>▪ application form</li> <li>▪ valuation form</li> <li>▪ agreement of sale</li> <li>▪ proof of salary</li> <li>▪ birth certificate/ID card</li> <li>▪ title deeds (if purchase)</li> <li>▪ builder's quotation (construction)</li> <li>▪ approved building plans (construction)</li> </ul>	yes yes yes yes no - ID noted yes yes, as needed yes, as needed	yes yes yes yes no - ID # noted yes yes, as needed yes, as needed	yes yes yes yes yes yes yes, as needed yes, as needed	yes yes yes yes yes yes, as needed yes, as needed

**Table 2**

**SERVICING POLICIES OF BUILDING SOCIETIES**

11/95

<b>POLICY</b>	<b>CABS</b>	<b>Beverley</b>	<b>FOUNDERS</b>	<b>ZIMS</b>
a. # loans being serviced (Low Income = LI High Income = HI)	LI - 11,304 HI - 13,930	LI - 7,121 HI - 6,784	LI - 2,144 HI - 6,300	LI - 411 HI - 231
b. Are original legal documents kept in fire-proof facility? (Yes or No)	Yes	Yes	Yes - in each major branch	Yes - in headquarters
c. Percentage of payments that are automatically deducted from salary or other account (%)	80% - most problems with public sector- problems when payment or interest rate changes	30%	30%	10% - most low income loans are not-they are working to begin for public sector employees
d. Notification period of interest/payment change to borrower (# of days)	90 Days	60 Days	90 days in the past, but changing to 30 days	90 days
e. Does borrower receive periodic statement of account to reflect pertinent information about mortgage? (Yes or No, and how often)	Yes - Annually	Yes - Bi-annually	Yes Bi-annually	No
f. Monthly coupon book given to borrower. (Yes or No)	No	No	Yes	No
g. Is BS's computer system developed in-house or a packaged product?	In-house- have done in-house programming to provide loan level data-seems quite flexible-looking at buying a package	In-house	In-house - transactional, not much loan level information	No computer system yet - working with USAID
h. How fast are payments reflected on the computer system?	Immediately - real time	Next Day - batch processing	Immediately - real-time	Manual
i. Does servicing staff have access to loan level detail on computer for each loan serviced? (Yes or No)	Yes	Yes	Yes -collection information primarily	No

<b>POLICY</b>	<b>CABS</b>	<b>Beverley</b>	<b>FOUNDERS</b>	<b>ZIMS</b>
j. Is capitalization allowed?	Yes	Yes	Yes	Yes
k. Are terms or mortgages or payments modified?	Yes	Yes	Yes	No
l. Are assumptions allowed, under what circumstances?	Yes, Deed if Sale done, original borrower is NOT released from liability	No - borrower must sale property	Yes, original borrower is NOT released from liability	Yes - if borrower unable to cure default take-over allowed, original borrower IS released from liability
m. What is the procedure to deal with a delinquent borrower?	30 days - reminder letter 60 days- stronger letter 90 days - demand letter Referred to foreclosure is days  Always telephone if available  Contact employers  Personal visits in many cases	7 days - reminder notice 30 days - letter 60 days - stronger letter 90 days - refer to foreclosure  Always telephone if available  Face-to-face interviews	15 days - send demand letter 20-25 days each branch reviews delinquency reports and discusses each borrower 90 days refer to foreclosure  Collection staff make personal visits on Saturdays  Telephone if available	30 days - reminder letter 60 days - stronger letter 90 days - demand letter pay in 14 days or begin foreclosure  Use phone if appropriate  Sometimes send driver or evaluator with letter
o. # of attorneys used to process foreclosures (#)	3	3 Firms	6 -Each major branch has own attorney	0

## APPENDIX IV

### SECONDARY MARKET FACILITIES AND SECONDARY MORTGAGE MARKETS

#### I. Secondary Mortgage Facilities

In many countries, purely wholesale institutions exist to facilitate the flow of funds to the primary mortgage market.<sup>3</sup> These institutions, referred to as liquidity, rediscounting or secondary mortgage facilities, are typically government owned or supported. They issue general obligation bonds in the capital markets and use the proceeds to refinance the portfolios of primary market lenders. Their asset activities include term lending and mortgage purchases.

In the U.S., the **Federal Home Loan Banks (FHLBs)** have been making collateralized loans to mortgage lenders since the 1930s. They currently have over \$250 billion in assets and \$220 billion in debt outstanding making them on a combined basis the second largest financial institution in the U.S. The bonds are joint and several obligations of the 12 bank system (not specifically collateralized) and rated AAA/aaa on a stand-alone basis. As Congressional chartered entities owned by their members, the FHLBs benefit from an implicit government guarantee (i.e., the market believes that the government would not let them fail – as a result their bonds trade at yields less than corporate AAA and less than 50 basis points over U.S. government bonds of comparable maturity). The FHLBs are exempt from corporate income tax but must contribute \$100 million annually to affordable housing initiatives.

In France, the **Caisse de Refinancement de Hypothecaire ("CRH")** (earlier known as the Marche Hypothecaire) performs a similar function. Its collateral is in the form of mortgage bonds created by primary market lenders rather than whole loans. At the end of 1993, over FF 100 billion of bonds were outstanding. CRH bonds trade at spreads of less than 50 basis points over comparable maturity French government bonds. CRH is owned by a group of commercial banks and the Credit Foncier, the largest specialist provider of mortgage loans in France.

**Cagamas in Malaysia** is the most successful example of a secondary mortgage facility in a developing country. It purchases mortgage loans from primary market lenders (with recourse and buy back agreements). Loans sold to Cagamas are not subject to reserve requirements. Its securities are general obligations of the company and not collateralized by the loans. Cagamas is the largest non-government issuer of debt in Malaysia. Its securities are rated AAA by the

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<sup>3</sup>These institutions contrast with national housing banks which operate primarily on a retail (deposit taking, direct lending) basis. Every country in Central America has or has had a National Housing Bank. These institution have typically been instruments of government subsidy policy (e.g., channeling payroll taxes to home buyers at below market rates).

Malaysian Rating Agency and subject to only a 10% risk weight for bank investors. Twenty percent of its shares are owned by the Central Bank and the remaining shares are held by commercial banks and finance companies. At the end of 1994, Cagamas assets exceeded 10 billion Ringgitt (US\$ 4 billion) and its outstanding debt securities were nearly 9.5 billion Ringgitt.

The **Home Mortgage Bank of Trinidad and Tobago Limited (HMB)** was created in 1987 to develop and maintain an organized secondary mortgage market. It is a privately managed institution whose major shareholders are the Central Bank of Trinidad and Tobago (15%), the National Insurance Board (7.5%), commercial banks, insurance companies and the International Finance Corporation (10%). HMB purchases mortgages from lenders on a recourse basis and funds its purchases through the sale of tax exempt bonds to institutional and individual investors. The primary lender continues to service the loans and receives a fee of 1.25% for conventional loans and 1.5% for approved mortgage company (subsidized) loans. The Home Mortgage Bank enjoys two forms of government support; interest on its securities is exempt from tax and because it is partially owned by the government its securities are viewed as comparable to those of the government. At the end of 1994, the outstanding balance of HMB bonds stood at T&T\$ 355 (approximately US \$60 million). HMB issued T&T\$ 53 million in 1994 compared with T&T\$ 30 million in 1993. Mortgage purchases rose from T&T\$ 22.8 million in 1993 to T&T\$ 64.3 million in 1994. It does not operate on a cross-country basis.

The Home Mortgage Bank is a shareholder in and advisor to the newly created **Eastern Caribbean Mortgage Bank (ECMB)**. This institution will operate across the 8 member countries of the Organization of Eastern Caribbean States (OECS). The structure is modeled after those of the HMB. Its authorized capital is \$40 million contributed by the Eastern Caribbean Central Bank and various commercial banks and insurance companies in the OECS and its initial authorized bond issuance of \$250 million. It is exempt from corporate tax and stamp duty and interest on its debt securities will be tax exempt. There are two points of interest for the sponsors of the MFC. First, the dollar is the common currency of the OCES. Thus, the ECMB will not be subject to exchange risk. Second, the sponsors of the ECMB surmounted the differences in the legal, regulatory and tax aspects of the different countries by negotiating a treaty defining the status of the institution.

The **Inter-American Savings and Loan Bank (BIAPE)** was created in the 1970s to provide a source of long-term funds for housing lenders in South America. With headquarters in Caracas, Venezuela, BIAPE has remained a small and largely ineffectual organization. It has not issued any debt and thus not been able to leverage its capital. Its paid-in capital is in dollars and most of its loans have also been in dollars. It did encounter a convertibility problem in Ecuador during the 1980s -- a problem that has since been resolved.

**Banco Latinoamericano de Exportaciones** is a Panama-based multinational trade finance bank with a broad base of Latin American commercial bank shareholders. Borrowers are primarily commercial banks of member Latin American countries that finance trade transactions for their customers. Business is conducted in U.S. dollars.

A proposal to create a Central American housing bank (backed by regional governments) was presented at a Habitat conference in Nicaragua at the end of September. We have not obtained any details on this proposal.

## II. Secondary Mortgage Markets

The secondary mortgage facility concept differs from a true secondary mortgage market wherein mortgage assets are sold and default risk transferred to a third party. The loans may be sold to specialized institutions called conduits or special purpose, separately capitalized vehicles. These entities raise funds through issuance of securities backed (or collateralized) by the loans. The majority of residential mortgage loans in the U.S. are funded through the secondary market. This market is dominated by government sponsored enterprises (**Fannie Mae and Freddie Mac**). There is a smaller private label secondary market for loans above the limits allowed for the enterprises. MBS have been issued in Australia, France, Hong Kong, Spain, Sweden and the U.K. by private entities and by a government corporation in Canada (Canada Mortgage and Housing Corporation). It is notable that Anglo-Saxon countries with a common law systems have had much greater securitization activity than civil law countries.<sup>4</sup>

A true secondary mortgage market allows primary market lenders that are relatively undercapitalized (relative to the risks of mortgage investment) to participate in the market. In so doing it can stimulate competition from smaller more entrepreneurial companies (e.g., the mortgage bankers in the U.S.). The drawback of this model is that it is expensive and time consuming to develop. Systems for tracking and transferring cash and information have to be developed. Mortgage design and underwriting has to be standardized to permit MBS issue. Legal obstacles to ownership transfer may have to be resolved as well as determining how credit enhancement would be provided. Investors need to be educated about the cash flow characteristics and risks of mortgage-backed securities. A natural sequencing of events may be the creation of secondary mortgage facility funded by term debt followed by issuance of pass-through securities by the facility after it has time to create the systems and establish its presence in the capital market.

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<sup>4</sup> In simple terms, under common law it is generally permissible to create new instruments unless precluded by law. Under civil law, new instruments must be authorized by legislation.

## APPENDIX V

### MORTGAGE DESIGN IN ZIMBABWE ALTERNATIVES TO CONVENTIONAL INSTRUMENTS

One of the most important issues facing the primary mortgage market in Zimbabwe is affordability of mortgage product. Specifically, given current high rates on interest, and the prospect of even higher interest rates in the future, mortgages have, and will continue to, become unaffordable for many borrowers. This appendix presents an alternative mortgage structure that has been used successfully in other parts of the world. Specifically, it looks at variants of the double index mortgage, developed by the Banco de México in the 1980's to address problems similar to those of Zimbabwe- high inflation and high interest rates.

The traditional mortgage product used in Zimbabwe by its building societies has been a variable rate mortgage. Standard amortization formulas are used with an interest rate that adjusts on an irregular basis.<sup>5</sup> There are numerous idiosyncrasies with the typical building society product. For example, fees incurred (e.g., late payment fees) and mortgage insurance premiums are all capitalized into the loan. This situation can necessitate lengthening the term of the loan- which typically starts out at 25 years.

Until recently mortgage interest rates were explicitly controlled by the government. During this time rates on building society mortgages adjusted roughly every six months.<sup>6</sup> Currently, the government prescribes a range for mortgage interest rates within which building societies are free to choose. These mortgage rate ranges are split between high and low density lows- the former receiving significantly lower interest rates.

Despite strong controls on mortgage rates, the Zimbabwean variable rate mortgage presents affordability problems for both new and existing borrowers. For many new borrowers the VRM is often unaffordable as the initial monthly principal and interest installment can be too high due to high current interest rates.

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<sup>5</sup> Some building societies have slightly modified the borrower payment formula in order to amortize the loan faster- thus providing the society with a buffer against default. This adjustment is usually done without the knowledge of the mortgagee. This practice does not appear to be illegal though it does present potential problems for securitization of the asset.

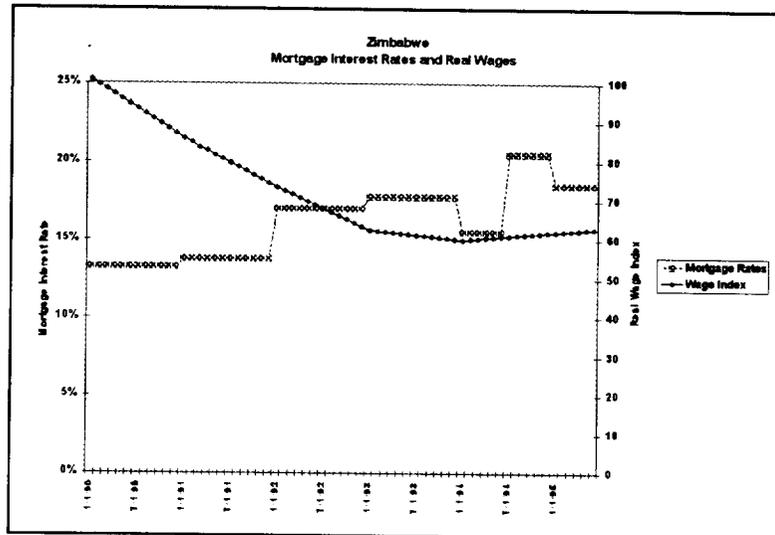
<sup>6</sup> It should be noted that the building societies in Zimbabwe often call their VRM product a fixed rate mortgage in that the rate is fixed until the government changes it.

**Table 1**  
**Payment Schedule- Z\$35,000 Loan for 25 Years**  
**Cumulative**

Annual Interest Rate	Monthly Payment	Payment Increase	Cumulative Payment Increase
10%	\$318.05	-	-
11%	\$343.04	\$24.99	\$24.99
12%	\$368.63	\$25.59	\$50.58
13%	\$394.74	\$26.11	\$76.70
14%	\$421.32	\$26.57	\$103.27
15%	\$448.29	\$26.97	\$130.25
16%	\$475.61	\$27.32	\$157.57
17%	\$503.23	\$27.62	\$185.18
18%	\$531.10	\$27.87	\$213.06
19%	\$559.19	\$28.09	\$241.14
20%	\$587.46	\$28.27	\$269.41

In addition, existing holders of mortgages face an ability to pay problem because mortgage interest rates have, since 1990 risen while real wages have fallen (Figure 1). In Sum, the affordability of the mortgage is mainly a function of the interest rate charged and, what may seem like modest increases in the interest rate, can greatly impact a borrower's ability-to-pay. For example, on a loan amount of Z\$35,000 for 25 year the monthly payment will increase approximately Z\$27.00 per month (the increase is not linear) for every percentage point increase in the mortgage rate. So the difference between a Z\$35,000 mortgage with a 10% annual interest rate and one with a 20% interest rate is a significant Z\$269.41 per month payment increase.

Figure 1



The mortgage affordability issue has been, to a limited extent (and without much success) addressed in recent years. The government has set up a system in which low income families purchasing housing in high density areas are eligible for lower interest rate loans. There are, however, at least two major concerns. First, it is doubtful that the loans are being given to the desired population segment; these loans are intended for the lowest income sector but government officials suspect that they are mostly going to higher income segments (though still within the prescribed income bounds for low income loans). More importantly, the interest rate subsidies on these loans have the affect of distorting the effective functioning of the financial markets. The only housing assistance provided to mid-income borrowers is a government guarantee on the down payment of the loan.

In recent years Beverley Building Society has attempted to address the affordability issue by introducing a *graduated payment mortgage*. This mortgage was, at the start of the loan, more affordable to a borrower than the standard VRM because monthly principal and interest payments were reduced below the amount needed to fully amortize the loan. The borrower was then given a schedule of payment increases so that by some future date he or she would be paying the full amount needed to amortize the loan. During the period of low payments the principal and interest deficit would be capitalized back into the loan (i.e., the loan would negatively amortize). Beverley was essentially betting that the wage of the borrowers would increase over the life of the loan so they would be able to meet continually increasing mortgage payments without hardship. Unfortunately, due to adverse macro-economic conditions and a poor design of the mortgage the Beverley GPM portfolio suffered extensive defaults. Specifically, during the period that the GPM was introduced, Zimbabwe saw a significant *decline* in real wages. In addition, the payment increase schedule was severe and inflexible which led to a severe ability-to-pay problem and subsequent defaults.

Despite the experience of Beverley, mortgages similar to the GPM but much more flexible in terms of payment increases could be introduced in times of high interest rates in order to increase affordability and maintain an attractive return for the originating institution. Such an instrument could also be securitized, with appropriate tranching of the bond.<sup>7</sup>

The Double Indexed Mortgage (DIM) is the type of mortgage that may be appropriate for Zimbabwe. It was developed to make mortgages affordable for borrowers in inflationary economic environments while maintaining a positive value to the mortgagee. It works by amortizing the mortgage balance at a market rate of interest ("amortization rate") while basing the borrower payment on a lower "borrower rate." This makes borrower payments affordable first by setting a low initial payment rate and second by increasing the borrowers by about the same percentage as any increasing in his wages. Thus, while in nominal terms the mortgage payment may increase, in real terms it should stay fairly constant.

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<sup>7</sup> Because indexed mortgages can negatively amortize and, in some cases, have low payments in the early years, the initial cash flow may not be desirable to investors. One way around this would be to break the cash flow into several components (or tranches) so that one, smaller, piece might be a constant cash flow, and subsequent pieces being deferred payments.

The DIM is an adjustable rate mortgage- over time both the amortization rate and the borrower rate change. The amortization rate changes with a change in the marginal cost of funds plus a spread. Changes in the borrower rate is based on increases or decreases in the minimum wage index. The variability of the amortization rate assures the bank an adequate interest rate while the variability of the borrower payment rate assures that the payment will rise but remain constant in real terms.

A key feature- or consequence- of the DIM is its tendency to negatively amortize. Specifically, if the borrower pay rate is less than the rate at which the mortgage is amortizing the resulting payment will not be enough to cover both the accrued interest and principal. The result is that the principal balance grows. In almost all-inflationary economies DIM mortgages will start out negatively amortizing. The mortgage will continue to negatively amortize as long as the implicit payment rate is smaller than the amortization rate. Thus, the instrument should perform well in scenarios in which interest rates rise moderately and then decline.

Figure 2 shows a hypothetical fixed rate mortgage. The borrower payment is constant so the principal balance continuously declines; the picture would be the same for a variable rate mortgage (as long as it did not have any miscellaneous capitalization).

**Figure 2 Fixed Rate Mortgage Principal Balance**  
 Z\$ 1000 initial balance, 180 month amortization

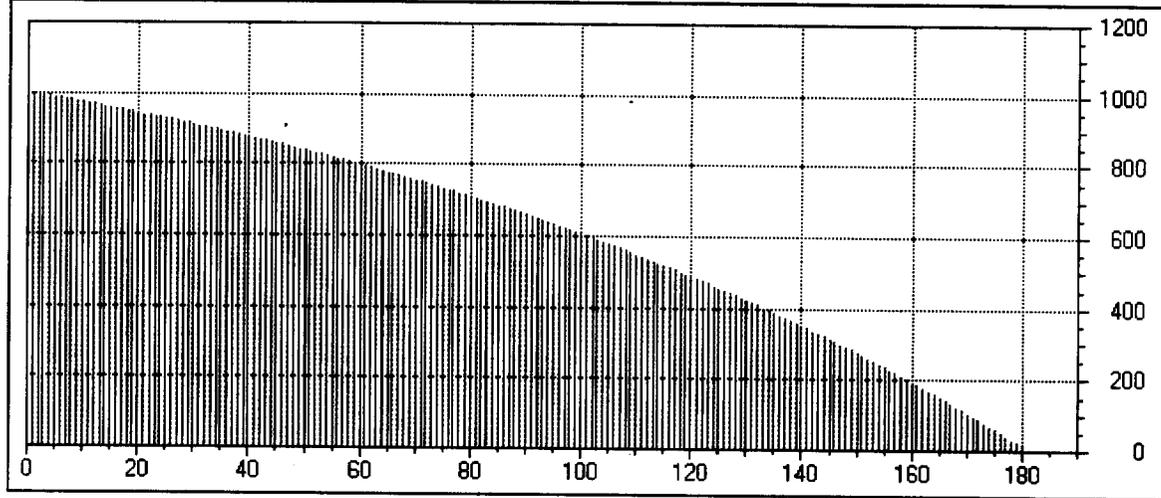
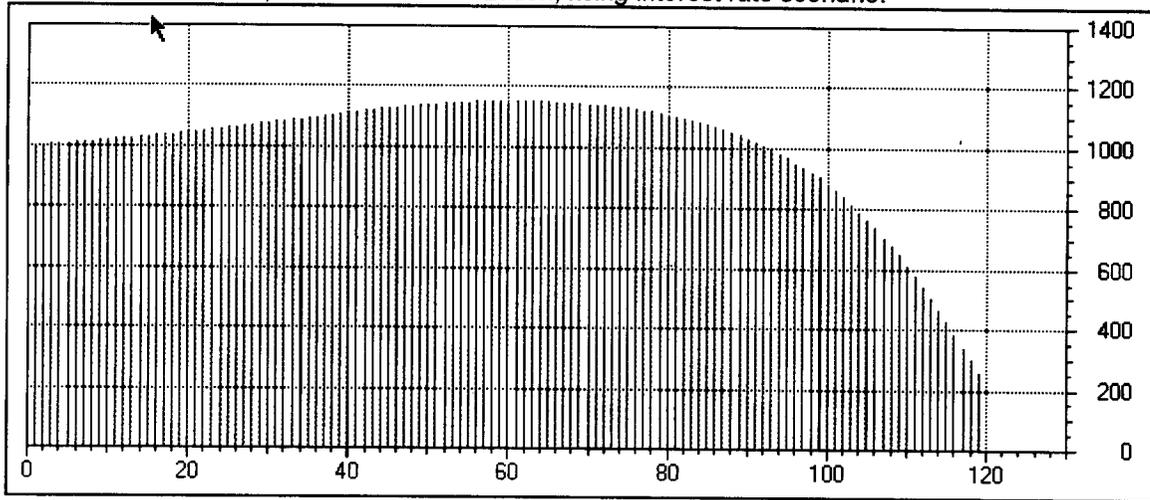


Figure 3 shows a hypothetical DIM in a scenario with rising interest rates and moderately increasing wages. The balance of the loan grows for the first 3/4 of the loan and then starts to pay-off quite rapidly after that.

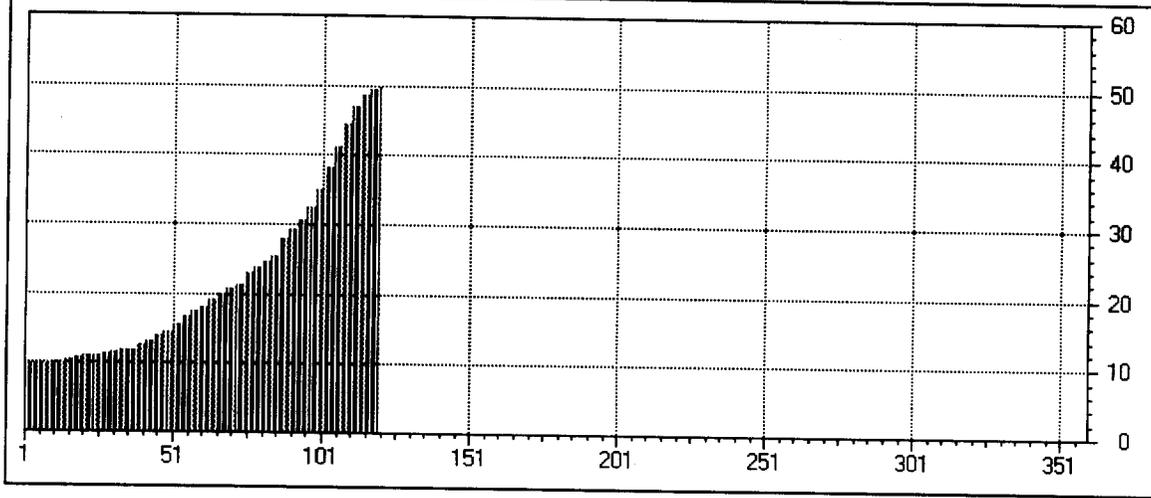
**Figure 3 DIM Mortgage Principal Balance**  
 Z\$1000 initial balance, 180 month amortization, rising interest rate scenario.



In addition, the payments seem to rise greatly throughout the life of the loan (figure \_\_). In nominal terms this is the case. If, however, the payments were converted to real dollars, the payment amount would actually be declining significantly with each payment.

**Figure 4 DIM Mortgage Payments**

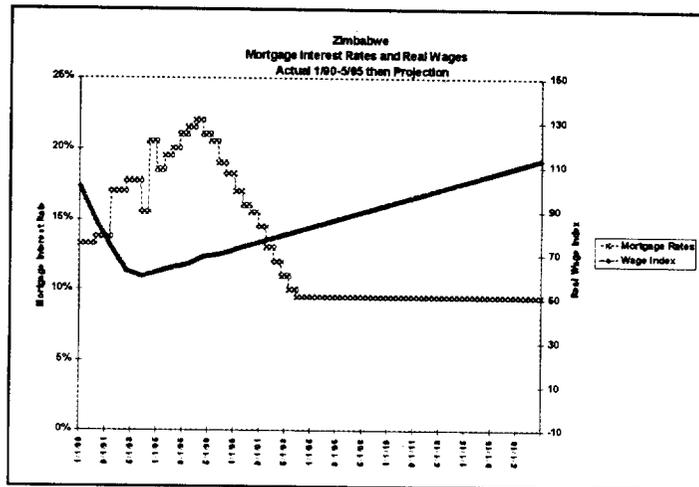
N\$1000 initial balance, 180 month amortization, rising interest rate scenario.  
 Balance Renegotiated to 180 Month FRM at month 181. Y axis N\$'s.



Finally, the DIM principal balance shown in figure 4 does not fully amortize. The exercise was designed this way to illustrate a potential place the government could subsidize a loan. Specifically, if at the time the loan comes due there is still a principal balance remaining, the government, or a third party guarantor could step in and pay the bank holding the mortgage this principal amount. If no such guarantee is available, the bank could also extend the terms of the loan to the borrower (e.g., re-amortize the remaining amount as a fixed rate loan of some duration).

In order to assess the performance of a DIM in Zimbabwe historical mortgage interest rates and historical wages rates from January 1990 to June 1995 were used in combination with modest projections of future rates (figure 5). Thus, the scenario starts out with declining real wages and increasing mortgage interest rates then reverts, at a moderate rate, to a situation with increasing real wages and stabilizing interest rates.

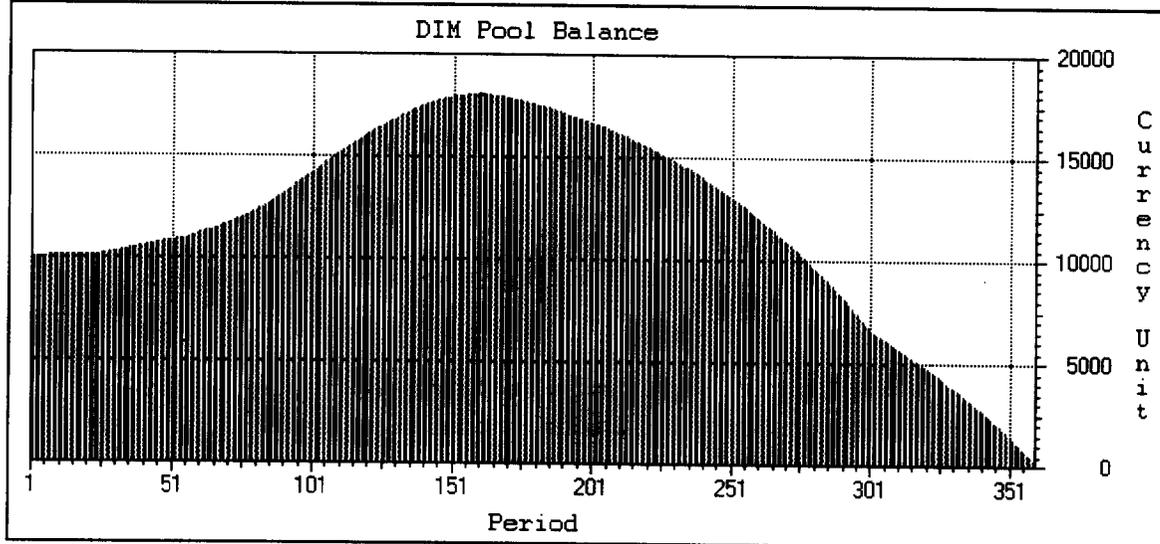
Figure 5



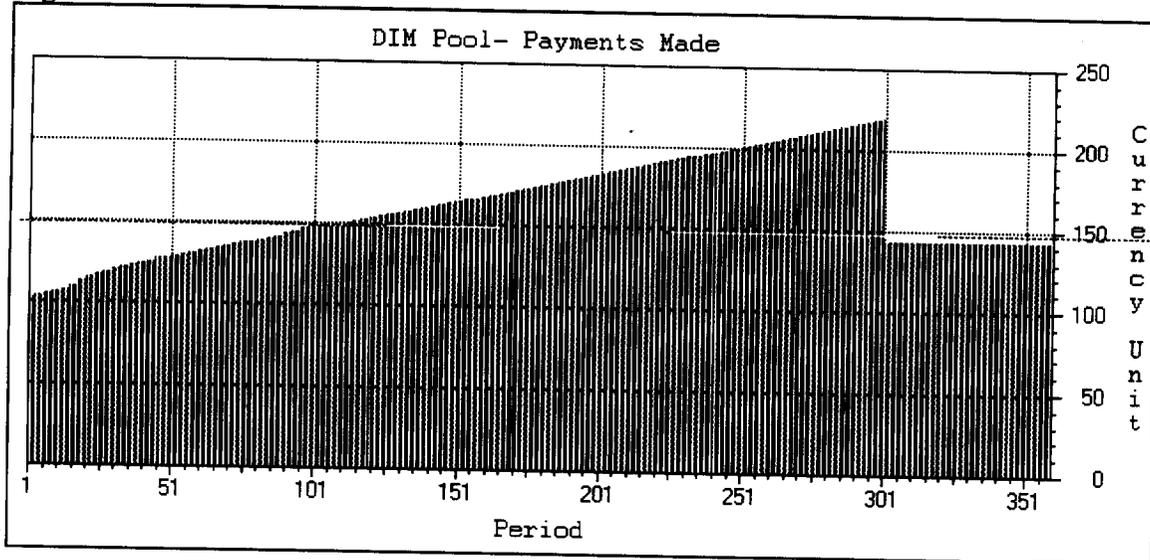
In order to make the loan affordable and fully amortize the following attributes were assigned to the loan:

1. 25 year indexed mortgage with an additional 5 year fixed amortization extension.
2. Loan amount: Z\$10,000
3. Initial market Interest Rate: 13.75%, Mortgage starting rate: 11.50%
4. Payment Increase Rule (Index):
  - a. In times of falling or stagnant wages and increasing inflation payment increase will equal 1/4 the increase in inflation. Thus the borrow would still face some hardship but in a moderate amount.
  - b. In times of increasing wages payment increases will be in proportion to the increase in wages.

**Figure 6 DIM Performance 1990-2015 in Zimbabwe**



**Figure 7**

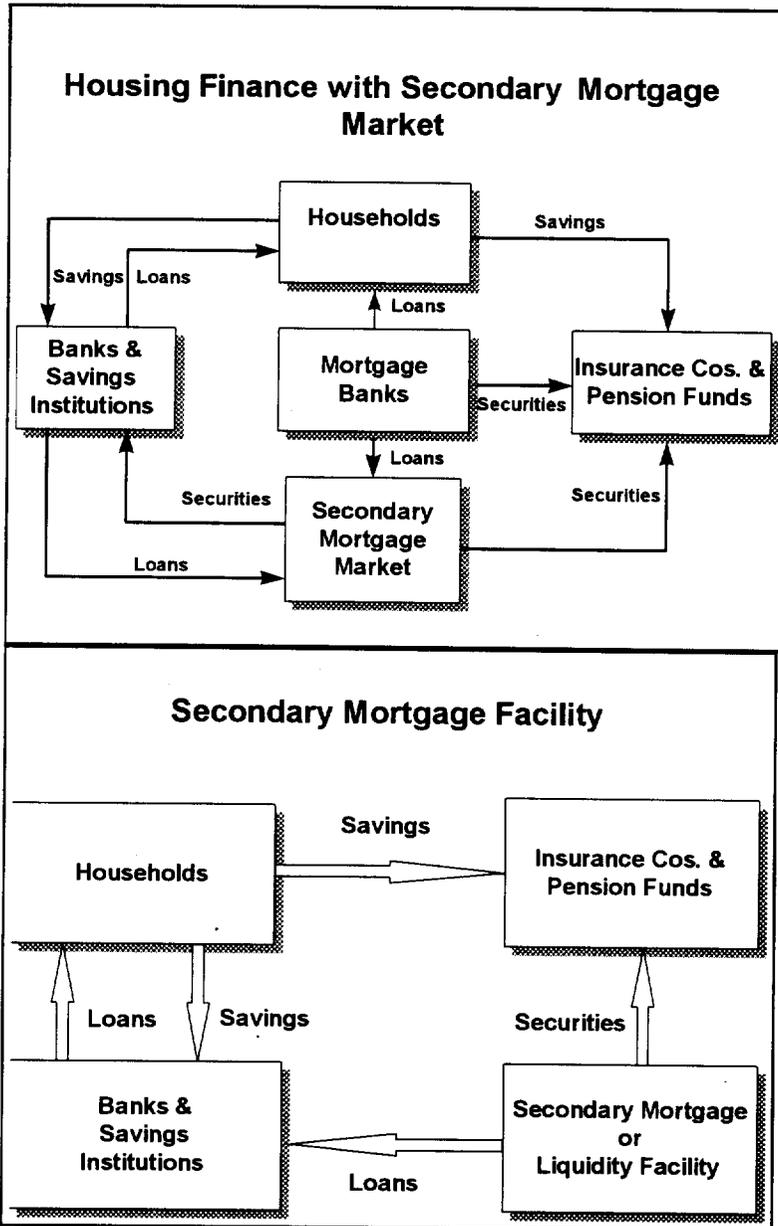


The profile of the mortgage balance looks similar to the first example- continuously rising balance for  $\frac{3}{4}$  of the life of the loan, then a quick pay-off. In nominal terms the payments continually rise, however, in real terms they rise only slowly during the first 5 years of the loan then actually decrease. In sum, this analysis shows that a DIM could work in Zimbabwe without stressing the borrower as much as would a standard variable rate loan would. The payment starts out much lower and, initially, rises at a lower rate.

To conclude this appendix, there are a number of issues that should be summarized regarding the DIM:

1. Management of payments: The key to a successful DIM is to closely manage borrower payments to avoid ability-to-pay problems. Successful management could entail closely monitoring real wage levels and actual borrower income.
2. Tax treatment of deferred income: Because DIMs produce deferred income (the negative amortization portion of the loan) it is essential that issuers of this type of mortgage not be taxed on the deferred portion of the income. Presently building societies are tax exempt so this is not a problem. However, if financial markets are "opened-up" this issue will have to be addressed.
3. Government's role: The government can play a role with DIMs by setting up a guarantee fund for loans that do not fully amortize. If managed properly this could be a relatively inexpensive proposition as the liabilities are far in the future.

THIS SECTION CONTAINS THE FIGURES FROM THE OVERHEAD PRESENTATION



## APPENDIX VI

### LIST OF PERSONS CONTACTED IN ZIMBABWE

<b>INSTITUTION</b>	<b>NAME</b>	<b>TITLE</b>
Association of Building Societies	Keith Evans	Executive Secretary
Association of Pension Funds	H.T. Makawa Roger Edgerton	Secretary General Chairman, Investment Committee
Beverley Building Society	Greville Burmester Mike Moyo Allen Chiripamberi	General Manager Assistant G.M. Mortgage Mgr.
Central Africa Building Society (CABS)	Graham Hollich John Maruta Kay Ellis Pamela Jarvis	Managing Director Sr. Manager Sr. Analyst - DP. Mortgage Mgr.
First Merchant Bank of Zimbabwe	J.A.B. Graham Paul Maarschalk	Executive Director G.M. Corporate Finance
First Mutual Bank	Don Edgerton Norman Sachikonye	General Manager Chief Financial Officer
Founders Building Society	Derek Phillips Kudzai Chirima Wilfred Mapfumo	Assistant G.M. Regional Manager Manager
Government of Zimbabwe	Peter Chimundwe	Registrar of Banks & Financial Institutions, Sr. Officer
Government of Zimbabwe	Stanley Meda	Registrar of Pension and Provident Funds
G S Developments (PVT.) LTD	Edward E. Galante	Director
Honey & Blanckenburg	A.M. Rosettenstein	Attorney
Life Office Association	P. Zvorwadza	Chairman

Ministry of Finance	Mrs. Manett Mpfu	Registrar of Banks and Financial Institutions, Registrations
Mortgage Management Services	Mrs. Panacheche	Monitoring & Implementation, Deputy Director
Keith Evans & Associates Consulting	Keith Evans	Managing Director
Life Zimbabwe, Pvt. Ltd.	Mainos Mudukuti	Managing Director
Merchantile & General Reinsurance	Stanley Bakasa	Principal Offer
Munich Reinsurance Co.	Pauline Arnold	Manager Ops.
National Social Security Administration (NSSA)	Rory O'Shea	Managing Director
Old Mutual Life Assurance Co.	Phineas Daugarembizi L. Ngwerume G. Meillier	Investment Manager Assistant G.M.
Reserve Bank of Zimbabwe	R.V. Wilde	Deputy Governor
Southampton Associates	Gil Rausch	Dept. Chief Exec
Stanbic Bank Zimbabwe Limited	Greg Brackenridge	General Manager
USAID - Zimbabwe	Michael Enders Tina Dooley-Jones	RHUDO Director Housing Officer
Von Seidels Trust Company Ltd.	Paul Sigsworth	Managing Director
Watson Wyatt Consulting	Roger Poerscout-Edgerton	Partner
World Bank - Harare	Kapil Kapour	Economist
Zimbabwe Building Society	Francis Nhema S.M. Mkendawire	Managing Director Mortgage Manager
Zimbabwe Reinsurance Corp.	Albert J. Nduna	Group Manager Director
Zimnat Life Assurance	Richard Muirimi	General Manager