The Expansion of the Secondary Mortgage Facility in Jordan

Developing Housing Finance

Samer Salah Rshaidat

Senior Coordinator, Infrastructure Department
Housing and Urban Development Corporation (HUDC), Jordan

Introduction

Jordan has shown a great capability to deal with sudden surges in population growth and with socio-economic and political changes. The sudden surges in population growth are attributed to the massive migration (since 1948, the year when the Arab–Israeli conflict began and continued in the 1967 war) from Palestine which was the west bank of river Jordan to the east bank (Jordan).

We add to this the return of expatriates from the Gulf States after the Gulf War in 1991 (about 400,000) and the natural population growth which is among the highest in the world (3.5–4.8%).

The housing sector in Jordan has not depended heavily on formal housing finance but relied on financing through cash and intra family financing, especially from expatriates abroad. This financing is expected to dry up in the future and we will need a sound housing finance in order to meet future demand and to find new tools to tackle this problem.

In 1994 the Government of Jordan (GOJ) came into agreement with the World Bank (WB) to restructure the housing and urban sector. As a first step to increase the private sector contribution to the housing finance, the WB assisted the GOJ to set up a secondary mortgage facility (SMF) in Jordan. A team from the WB visited Jordan to assist in establishing an SMF for Jordan.

The term “secondary” is intended to contrast with the “primary” market for mortgages, which consists of financial institutions which initiated the loans. The term was originated in the USA, where mortgages themselves were actually being sold in a secondary market after origination in the primary market. It is used today to refer to secondary funding of mortgages after origination, whether through sales of mortgages, through their use as collateral or through other form of large scale, longer term fund raising directly or indirectly backed by mortgages.

The SMF in Jordan will issue bonds which are collatarized by loans to banks and the loans are collaterized by mortgages. The SMF will be an institution which pools together mortgage backed bonds (MBS) or loans and issues its own bonds on a larger scale and with even greater assurance of payment. Such an institution can perform the useful job of checking on the quality of the mortgages that go into the bonds issued by the lender. Several countries have created such a special institution, usually sponsored by the government, which takes on the job of monitoring and enforcing such standards and provides its own guarantee to bonds that it issues to the public.

Problem Definition

There is a need to create new sources of refinancing for housing purposes through creation of the SMF developing later to a full fledge Secondary Mortgage Market (SMM) , since housing finance needs new sources of funds to meet the expected expansion in demand.

Motivation for the Choice of Study

I worked with the World Bank mission in 1996 as I was the person responsible for preparation of the World Bank quarterly report, and since I had good experience in capital markets I prepared at that time a report on SMF.

This study aims at studying the feasibility of SMF for Jordan and the anticipated development of this market and its viability for Jordan. This study in my opinion is important because there are very few studies that cover this subject.

Background

The study introduces the background on the housing in general and the housing reform project which the establishing of a SMF in Jordan was one of its components. The low and medium income groups were unable to get access to affordable housing due to the high land prices and high cost for dwellings. Development standards such as zoning, plot size, etc. were geared to the upper end of the market.

There is a need for a method of gathering long term funds to fund longer term loans, so when the term of the loan is extended the household affordability will increase accordingly.

WB experts visiting Jordan explained how the secondary mortgage market accomplished this purpose in the USA. In this paper, the study focuses on the SMF suggested for Jordan as an access for housing finance. Examples are taken from India, Fiji, and Malaysia to show their experiences with SMF and secondary mortgage markets (SMM) with emphasis on fund mobilisation strategies in these countries Also we look at the American model for comparison purposes.

Objective of Establishing the SMF in Jordan:

a- Create new sources of liquidity for mortgage lending to help banks improve the matching of maturities between their traditional sources and uses of funds.

b- Support government strategy to promote sustainable growth in the housing sector by deepening the mortgage finance system, promoting private sector development in land and housing production, and reducing the role of the public sector.

c- Mobilise funds for mortgage lending and enhance the affordability of housing by lengthening available mortgage maturities and fostering banking competition. The SMF will improve the enabling environment for responsive private sector participation and competition in land and housing development for lower income households.

d- Build investors' (domestic and international) confidence in Jordan's emerging bond market by offering investors bonds relevant yield compared to other investments and of low risk.

e- Reduce the regulatory barriers that restrain the private sector from entering and competing in lower income market and from responding efficiently and effectively to market demand.

f- Create Islamic window for borrowing.

Risks Associated with Mortgage Lending and SMM Markets in Some Countries

Risks Associated with Mortgage Lending and Fund Mobilisation Strategies

The experience of some countries with regard to fund mobilisation is essential since exchange of experience in this domain helps to approach in the right direction. We will look at the Indian, Malaysian and Fiji Islands experiences; also we will look at risks associated with mortgage lending. Risk allocation itself is important because efficient allocation will reduce the cost of mortgage credit to the borrower.

Risks Associated with Mortgage Lending

Credit Risk

The Risk of non payment associated with any loan. In Jordan the credit risk associated with residential lending is low. The maximum loan is for 75% of the appraised value of the land and structure, but the appraisal is not based on the prevailing prices in the market, but rather on an estimate of what the distress sale price might be. The later figure is 20% less than the former, leaving an initial loan to property value ratio of 0.6 or 60%.

Example:

A house and land worth at market price= 50,000 JD
The appraisal price (the distress price) = 40,000 JD
The maximum loan=$40,000* 75% = 30,000 JD

Intermediation Risk

The risk which refers to the possibility that the lender will have difficulty replacing liabilities(deposits or term loans) that might be withdrawn prior to the repayment of a mortgage loan.; this risk arises when there is not a close congruence between the term of the lender's assets (deposits or term loans) and his liabilities.

This risk is borne by the loan originator unless it is successful in selling the mortgage or debt based on the mortgage to other investors for the term of the mortgage.

Interest Rate Risk

Is the risk borne by the lender when the interest rate on the liabilities can vary independently of the interest rate on mortgages already in force. For example, if the mortgage carries an interest rate fixed for its life while the rate on liabilities used to finance it can vary over the life of the mortgage, then it is possible for the cost of funds to rise above the interest rate on the mortgage there by creating a loss for the originator.

Example:

Mortgages carries an interest rate (fixed for its life) = 8 %
Rate for liabilities rises to 10% (for some reason)
Then the cost of funds is 2% higher than the interest rate on the mortgage, so the originator bears a 2% loss.

Jordanian banks have liquidity ratio of around 14-18% and this is a variable ration in accordance with the Central Bank of Jordan (CBJ) regulations.

This kind of risk is moderate in Jordan since all housing loans are variable and varies with the cost of funds.

Prepayment Risk

The risk which arises because mortgage may be paid off before the end of their term at a time when interest rates are low compared to the rate on the mortgage. The investor- either the originator or other investor- then has to reinvest its funds at a less favourable rate.

Table 1.1 The Distribution Risks under Alternative Ways Of Mobilising Funds (Entity Bearing Risk) (Raymond Struyk 1989)

Source of Fund	Credit Risk	Intermediation Risk	Interest rate Risk	Prepayment Risk
Deposits	Originator	Originator	Borrower or Originator++	Originator
Term Loans*	Originator	Originator	Borrower Or Originator++	Originator
Bonds** Fixed Rate Variable Rate	Originator	None None	Investor borrower	Issuer Issuer
Participations** Fixed Rate+ Variable Rate+	Originator	None None	Investor Borrower	Investor Investor
Refinancing	Originator	None	Issuer	Originator

*Notes: * Assumes these loans are at a fixed rate, intermediation risk occurs only if the loan has a call option.*

*** Assumes that the bonds have the same term as the underlying mortgages; bonds could be issued either by an individual lender or by a secondary facility but in either case use a pool of mortgages as the asset base. Fixed rate and Variable rates refer to the interest structure on the underlying mortgages.*

+Whether the participation is fixed or variable rate depends on whether the mortgages in the underlying pool are fixed rate or adjustable rate mortgages.

++Depends on whether fixed rates or adjustable rate mortgage is employed.

The risks associated with mortgage lending which we mentioned here is to clarify and convey to the investors (banks, institutions or private investors) the risk involved in this kind of markets and ways to choose the appropriate tool.

However, the charter of the SMF in Jordan (with regards to an emerging and newly established facility) will be narrow to shield it from substantial risk, and it will make long term loans to the banking sector on the strength of pledged collateral consisting solely of mortgages on owner-occupied housing, and will not accept any risks associated with the original mortgage loans (credit risks, interest rate risk, prepayment risk).

The GOJ must issue the relevant regulations to immune the SMF as much as possible from any risk. The GOJ will take only a minority share holding to ensure that SMF is primarily responsive to the needs of investors and lenders. The GOJ will facilitate and reduce the risk in the secondary market by exempting SMF loans from the statutory and liquidity reserve requirements of the CBJ. In addition to this the debt issued by the SMF will count towards to meeting the CBJ liquidity reserve requirements for banks. This will encourage and enhance the development of the overall bond market and make the SMF of low risk, and the tradability of bonds issued by the SMF will be enhanced.

As noted earlier, Jordanians banks are taking small amounts of interest rate risk in their housing lending now, simply because they do not connect the rate on their mortgages to their cost of funds. The SMF can be a convenient way to reduce that risk, if it borrows and lends at a fixed rate. However, fixed rate borrowing from the SMF could increase the risk from borrowers prepaying their mortgages in response to a decline in interest rate on new loans. In principle, the banks remains exposed to some risks as long as the exact interest rate and prepayment terms of the mortgages it makes do not match those on the loans from the SMF.

Fund Mobilisation (Potential Resources)

The need of creating a SMM is to attract funds from various resources and to integrate housing finance more fully with overall financial markets.

Resources for Funding SMF in Jordan

WB study estimated the program of refinancing mortgages to aggregates around 280 million USD for the four years after commencement of the SMF.

Actually the number after the fourth year was 25% less than originally estimated. The WB granted Jordan 10,000,000 JD (14million US$) to be lent to the Jordan Secondary Mortgage Refinance Co.

The SMF Co. was established with an initial capital of 5,000,000 JD.

"Households are accumulating funds in several major banks (Between JD 7 and 8 billion equivalent to 10 to11.5 billion$), the SSC (App. JD 0.7Billion or one billion $), the public employees pension fund), the insurance companies, and equity invested in the Amman Financial Market. Most of their liquid assets are being placed on deposit with the commercial banks. In addition, a large share of the funds with the SSC and insurance companies are being placed on deposit, far in excess of the need for ready liquidity on the part of these institutions. In turn the banks keep an unusually large share of their funds in the form of very liquid investments because they have to be ready to return these deposits on relatively short notice" (World Bank Mission 1995).

The American Model

In 1938 the USA established the National Federal Mortgages Association (FNMA) which main objective was providing additional liquidity for Banks and financial institutions which was affected by the great depression (1929-1935). The aim was to bridge the gap between maturity of funds and its usage.

There are 3 methods for buying & selling mortgages according to the American model:

1 Buy or sell housing loans collectively from the lending institutions and issue bonds against it for individual investors and investments firms.
2 The originator (the issuing authority) is the one that have the legal right of mortgages and can sell part of the loans revenue and its risks.
3 The loans can be transferred into securities through the trustee who can issue securities against the aggregated loans he has sold to him from the lending institutions and those are traded in the capital markets.

The Indian Model

The National Housing Bank (NHB) introduced what was called the housing- linked contract saving scheme. The scheme is intended to increase the share of contribution of household savings channelled for housing finance, and to increase the share of household savings held in financial form, and hence make the housing sector more self sufficient financially. But attracting household savings is rather challenging since the Reserve Bank of India (RBI) prohibits Housing Finance Company (HFC(I)) from accepting deposits less than two years maturity, already with the existing prohibition of to accept demand deposits.

Because of the difficulty in attracting household savings, the largest HFC, Housing Development Finance Corporation (HDFC), has turned to term loans as its principal source of funds. Other major new HFCs will follow HDFC and are likely to do the same; this will certainly be the case for the LIC and General Insurance Corporation (GIC) affiliates. While such loans are attractive because of the comparatively low cost per rupee mobilised, they have two disadvantages for the housing finance system as a whole:

1 -The borrowing HFC bears all risks associated with housing lending, (assuming fixed interest rate on mortgages).
2 -The sources of such loans are limited and it is unlikely that all HFCs will be able to obtain access to them; they will probably be insufficient to support a growing housing finance system.

Almost by default, then, the housing finance system is being forced to look to broader financial markets for sources of funds. There are two alternatives available:

1 -One is for institution to try to go into financial markets using bonds or raising equity.
2 -The other is for one or more secondary institutions to access financial markets on behalf of a number of institutions.

“Only HDFC among the housing finance companies has been able to successfully tap broader financial markets, in both selling bond issues and raising equity. At the ‘whole sale level’ HUDCO routinely sells its bonds, with their various advantages and the Delhi Co-operative Housing Finance Society has sold bonds with a government Guarantee which it uses to make loans to member co-operatives" (Raymond Struyk 1989).

The **secondary mortgage approach has significant advantages:** (a) The price of funds to lenders will be appreciably lower if the securities sold by the secondary facility carry an implicit government guarantee.

(b) A secondary facility permits small, relatively unknown institutions to access to these markets.

(c) Collectively entering the market may lower transactions cost as fewer, larger issues can be marketed.

There are two investment opportunities for investors in SMM:

-The Issued bonds should provide them with constant interest on their investment.

-Participations (or pass through certificates) provide investors with undivided interest in an underlying pool of mortgages, and payments of interest and principal on the mortgages are passed through to the certificate holder as they are collected. Participations provide a stated rate of return but the pattern of payment is uncertain, as it depends on the rate at which the households repay their mortgages.

Under pass-through certificates[1] the investors are considered to be the beneficial owners of the mortgages, though the issuer of the certificate may retain legal title. From the mortgage originator's point of view the sale of the certificates constitutes a sale of the underlying mortgages, removing them from the originator's balance sheet. By contrast, the sale of mortgage backed bonds leaves the mortgages as assets on the balance sheet and adds a corresponding liability for the bonds. In India, where HFCs are subject to debt equity ratio limits, the use of pass-through certificates has the advantage of reducing the need by the lender to generate additional equity (Raymond Struyk 1989).

The Malaysian Experience

In 1986 Malaysia established a secondary mortgage facility called (Agamas) , this corporation issued bonds with the local currencies (Ringed)[2] and the outcome of the sale at that time was 100 million Malaysian ringed. The outcome of the sale was used to refinance mortgage loans, Islamic housing loans and the so called "Rent to own" loans.

The Malaysian mortgage market grew dramatically and stands now at 22 billion ringed which is about 38% of the housing loans lent by the financing institutions.

Cagamas issues Islamic bonds with a return payable to the buyer every 6 months and is tradable on the stock exchange. It also issues bonds with fixed rate with maturity 2–7 years and bonds with floating rate 2-3 years in maturity (Study prepared by CBJ, HB, HUDC and SMF).

[1] Pass through certificates are ones that entitles holder of it the right of interest rate on mortgages

[2] In the early 80s the Ringgit was around 2 for 1 USD and now it is around 3.8 USD

The Fiji Islands Model

This small island model resembles the American model but it is a simplified model and functions as follows:

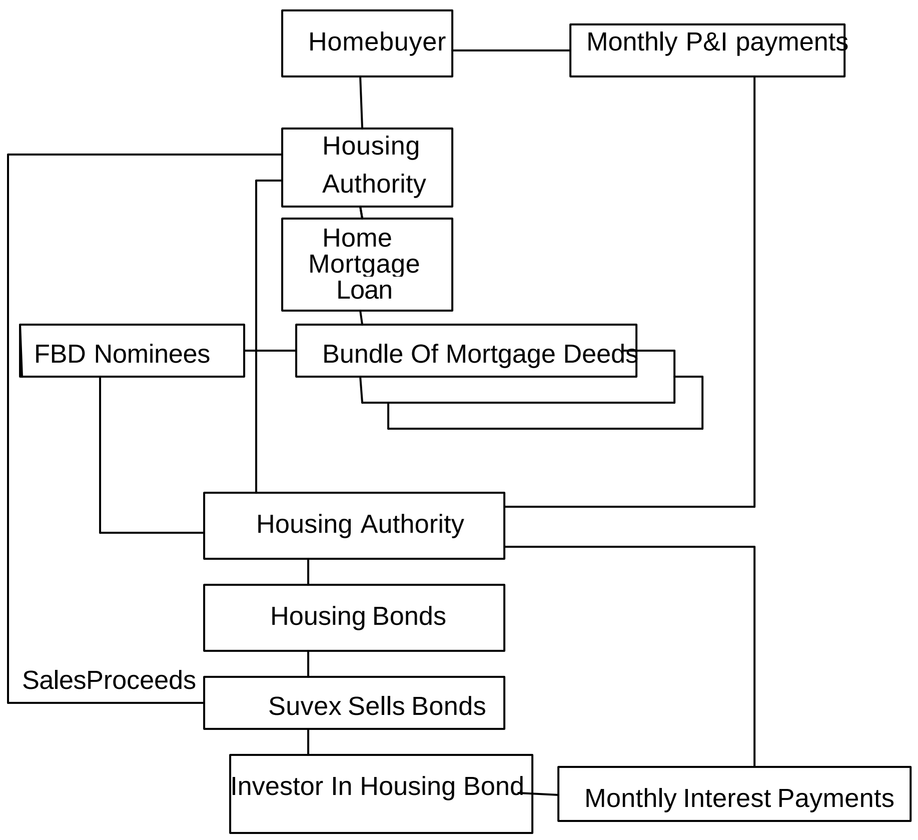
The Housing Authority, Home Finance Corp. and the banks pool mortgages (bundles mortgages) together and then hands them over to trustee or custodian organisation (in this case the FDB Nominees) who after checking the legality of loans (should be up to date, of same interest rate and structure and have the same standard of documentation) transfers the mortgages deeds to the trustees name.

Afterwards the Trustee will instruct the mortgage loan institution to issue its Mortgage Backed securities (MBS). Suva Stock Exchange (SUVEX) is the market maker and underwriter of MBS issue.

The housing or mortgage lending institution will be responsible as agent of the bond holders to collect on their behalf the principle and interest due to bond holders. As agent, the mortgage lending institution will deduct an agreed fee from the amounts due to the bond holders to compensate the former for acting as the collection agent.

Organisation of the Fiji Model: (T Barker, Price Waterhouse Urwick 1991)

. FIJI MBS BOND



Issues Associated with Creation of SMF in Jordan

Legal Issues

The SMF initially will function as a financial company under the umbrella of the companies law. Two issues had been solved to pave the way for the establishment of the SMF:

The companies law that will help to facilitate further development of the bond market.

The amendment of the Ottoman Law which limits the cumulative interest rate to exceed the principal loan. (It is a problem when the loan maturity is more than 10 years).

Quality of Asset Issues

Quality of issues is important since investors look at issues (Assets) in terms of their security to posses and the return compared to other investments. Investors in SMF bonds should be protected from the impact of loan default. This protection is derived from the SMF available resources ready for the loan originator in the case of loan default. And if the originator (Banks or Financial institutions) was unable to compensate the SMF for the loss of a loan, the SMF should cover it from its reserves.

Many secondary funding mechanisms operate without government guarantee, with investors convinced that overall economic performance provides certain security to their holdings. The SMF should be able to pay from its resources to the originator, and in case the originator could not compensate the mortgage the SMF should compensate from its resources.

Foreclosure problems associated loan defaults could be solved through the introduction of mortgage insurance scheme which proved to be successful in India.

Design And Pricing

The potential funds attracted from Jordan capital markets requires an introduction and development of investments tools targeted to different market investors and segments in order for the housing sector to benefit from funds raised in the capital markets.

Suggested Market Segments Interest Rates and Maturity

Market Segment	Interest Rate %	Maturity(Years)
Tax exempt bonds	9	7
Capital gains bonds	10	3
Gov. guaranteed bonds	11-11.5	20
Provident fund bonds	12	10
MBS – Individual Investor	13	15
Corporate MBS	15-16	15

Mortgages purchased by the SMF to be supported these funds will carry rates from 9%–12 % based on pooled funds. The terms of the bonds listed above are shorter than those on mortgages being written, this is for the purpose of covering for the cost and spreads.

Example:

Funds with an average cost of 10.5 % could support purchases of mortgages with an average interest rate of 12–13.5%

The future rise of interest rates may hinder loan repayment and this could be controlled by:

Setting a limit of 3-4% on interest rate increase.

Setting a higher mortgage principal on a basis of higher interest rate at time of loan origination.

SMF will issue bonds backed by all its assets in which mortgages are collateral.

SMF will be taxed according to the bank tax law which imposes 30% tax on net profit while interest attained from possession of SMF bonds is exempt from tax in accordance with the tax law.

There are several ways in which the loans from the SMF to the banks and the bonds issued by the SMF can be structured. The discussion has tended to focus on the simplest case, where both are bullet at a fixed interest rate. This is partly for ease of discussion and partly because it may be best for the SMF to avoid financial complexity initially. However, it should be made clear that there are alternative arrangements that may better suit the banks and the investors in the bonds. These alternatives include having loans with rate that vary according to the cost of deposits or the central bank of Jordan (CBJ) certificate of deposit (CD) floating rate and with amounts that decline in accordance with the decline in the outstanding principle of the refinanced loans (amortising loans). The SMF can also issue floating rate or amortising bonds to match these loans. However, the bond investor may strongly prefer floating rate non-amortising bonds, while the banks prefer fixed rate, amortising loans or some other combination.

A soft launch is preferable in which 3–4 years short term loans offered by SMF and the banks in order to test market susceptibility before trying more complex funding.

The Amman Stock Exchange should control the issuance of bonds in accordance with market needs.

Assessment of the Potential Development of the SMF

The potential buyers of MBS will comprise of institutions, banks and investors, but it is suggested that the Social Security Corporation (SSC) and the GOJ will hold them until maturities.

The success of the SMF will depend on the lenders; whether SMF loans are attractive to them or not, that is funds obtained through the facility are more attractive than funds obtained through deposits.

If we look at the Malaysian model which proved to successful we see that the government there permitted the banks to count the CAGAMAS BONDS against their liquidity ratio.

Jordan has a small market and therefore a ceiling of 40,000–50,000 JD (JD=1.4 US$) is acceptable, in order to achieve our goal of developing this market into a full fledge market and create a liquid market and not a thin one.

Foreseen Development of the SMF Market

The question here is the volume of mortgage refinancing sufficient for the SMF operations, and the answer is that the foreseen development of Jordan's capital market and its attractiveness for foreign investments.

Foreign investments usually refrain from investing in countries that have high foreign debt and hyper inflation which Jordan manage to solve since 1988 the year of JD devaluation.

The foreign debt relative to GNP came down from 180% of GDB to 80% and inflation from 22% in 1988 to 3% average since then.

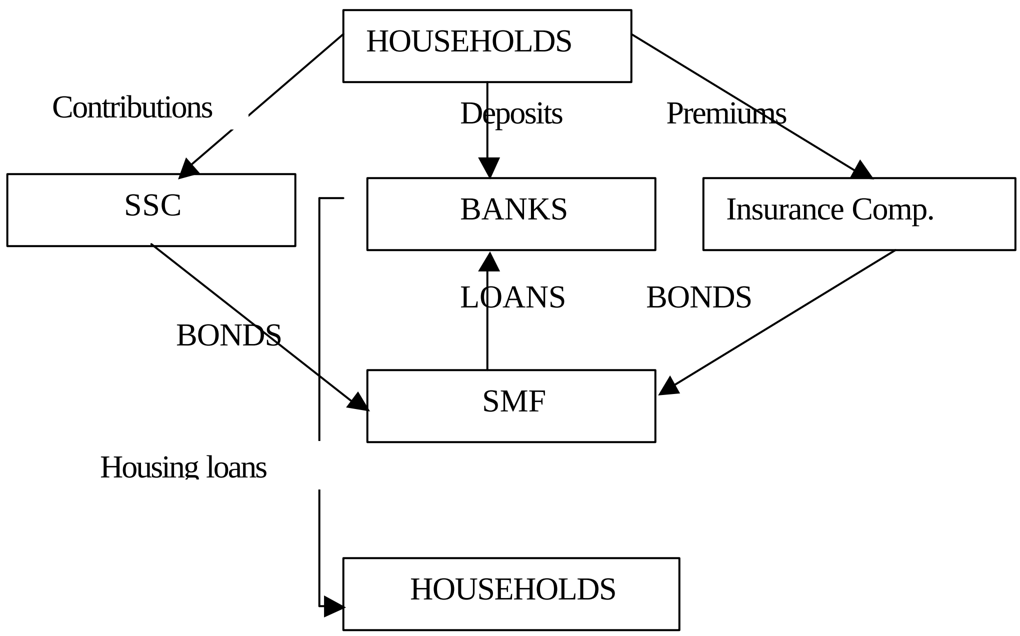
One of the features of financial maturity in the USA and developed countries is the existence of highly sophisticated developed bond market that fulfils the needs of lenders and borrowers hence encouraging the investments in the bond market.

The bond market eases the pressure exerted on banks and lending institutions and is a safe haven during financial crisis.

In the USA the value of the bond market is 159% of GNP while it is just 20% in Hong Kong and 100% in the Philippines, also we find that deposits in USA is 17% of GNP, in Lebanon it is 250%,Egypt 47% and in Jordan it is 90%. (Dr. Louis Hubaiqa 2002)

Bond market has the safest category like the US treasuries (Gov. Bonds) and the high risk like the junk bonds which gives high yield but highly risky to own because they are issued by week companies.

The figure below shows how SMF would operate in Jordan



Potential Feasibility of SMF

The SMF viability depends on weather lenders perceive the cost and features of funds obtained through the SMF are attractive relative to funds raised by deposit taking.

"The break-even lending rate for an additional JD of deposit raised at 9% is at least 11% currently(with 14% set aside in cash and another 16% in CBJ CDs at 8.5%),and possibly as high as 11.9%(if another 20% is kept in CDs).That implies that a lender should be interested in borrowing on a floating rate basis from the SMF as long as the cost of its funds is less than 11%, assuming that the loan from the SMF is exempt from the statutory and liquidity reserve rates. If the loan is at a fixed rate, and the bank's housing loans are also, the bank will be willing to pay even more if it expects interest rates to continue to rise in the medium term" (World Bank Mission 1995).

Example:

Cost of Funds to the SMF	
Rate paid on 10 year Gov. bonds	9.25%
Administration cost	0.45%
Cost of issuance bonds	0.3%
Return on Equity	0.62%
Total	10.62%

SMF will lend banks at a rate of 10.62% if treated against liquidity ratio or 10.62%+ 0.75%= 11.4% if not.

Implementation Procedures

For the SMF to develop further and establish its goals, it is suggested that the following procedures should be followed:

- Allocate amount and type of secondary underwriting to be considered by the SMF.
- Set standards on types of mortgages it will buy.
- If the government decides that mortgage insurance is the proper way to tackle the mortgage foreclosure problem then two points of interest must be considered:
  (a) Designing and detailing the underwriting standards which participating lenders must follow
  (b) Establishing the lender specific insurance premiums based on their past delinquency and default records.
- Procedures for mortgage purchases to be targeted to certain priority types of units or income groups.
- Process of paying various fees and income, both by the SMF and the originator.
- Actions to be taken in case of loans default and foreclosure procedures in collaboration with the originator.
- Set written procedures with regard to originator–investor-SMF roles and obligations; experience of the mentioned countries might be a reference.

Conclusion and Recommendations

Conclusions

- Increase household access to housing if the rates on mortgages are lower and terms of loans longer.
- Create liquid market for (MBS) in order to buy and sell the securities and this needs some time for SMF to develop into a SMM
- Interest rates on mortgages will have to be competitive with those offered by other investments.
- Most important is that SMF under which bonds are collateralised by loans extended to the banks and those loans collateralised by mortgages would be most suitable for Jordan

Recommendations

- Establishing SMF in Jordan and developing it into a broader market like SMM is a task that needs intensive monitoring and follow-up.

This task should be guided by an action plan with a detailed time schedule; a 3-4 years time period is seen relevant to accomplish these tasks, it is also a sufficient period to see how this market is developing and is the SMM the next stage.

- Initially the GOJ & SSC should buy MBS issued by the SMF and hold them until maturity
- GOJ should guarantee payment of principal & Interest of the MBS to secure mortgages sold by the SMF.
- Adoption of a mortgage insurance scheme, which proved a success in India, and introduce the pass-through certificate later.
    - The introduction of new investment tools may help the development of the financial system; the options and futures tools are sophisticated tools and the are used in the USA to hedge investments against certain movement in the markets (up or down) .In our case we are looking at the put option[3] to hedge holding bonds for a long period of time (put options are the right to sell at a certain price).
- The GOJ may adopt the model in the Fiji Island that pays an important role for the Trustee or custodian agency.

References

Barker, T. (Price Waterhouse Urwick), M. Lindfield (Netherlands Economic Institute), F. Waqabacca (RBF), A. Yauvoli (Ministry of Finance, Fiji).

1991 Housing Sector Resource Mobilisation Study Fiji, Final report For the "Asian Development Bank, The Ministry of Housing and Urban Development, Fiji and the Ministry of Finance, Fiji.

Hubaiqa, Dr. Louis

2002 From article published in the Al-Raai Daily newspaper title "Bank Lending &Bond Markets" 23 Jan.2002.

_____,

1999 The role of SMF Co. in Activating the Housing Sector in Jordan Study Prepared by CBJ, HUDC, Housing Bank and Jordan SMF Co., Jordan.

Struyk, Raymond

1989 *A Secondary Mortgage Market For India*. Notes on feasibility and structure. Study for The Office of Housing and Urban Programs, USAID, Washington, DC.

World Bank Mission

1995 Appraisal of the proposed "Housing and Urban Sector Reform Project," Memorandum of Understanding, Amman, Jordan.

[3] Put option are investment tools used to hedge investments, for example if we are buying bonds we buy put options and that is the right to sell the holdings at a certain price and that is to protect against declining bond prices

List of Acronyms and Abbreviation

MBS:	Mortgage Backed Security
SMF:	Secondary Mortgage Facility
SMM:	Secondary Mortgage Market
GOJ:	Government of Jordan
SCC:	Social Security Corporation
CBJ:	Central Bank of Jordan
CD:	Certificate of Deposit
HUDC:	Housing And Urban Development Corporation
WB:	World Bank
JD:	Jordanian Dinar
HFC(I):	Housing Finance Company (India)
NHB:	National Housing Bank
RBI:	Reserve Bank of India
HDFC:	Housing Development Finance Corporation
LIC:	Life Insurance Company
GIC:	General Insurance Corporation
HA:	Housing Authority
HFC(F):	Home Finance Corporation (Fiji)
FDB:	Fiji Development Bank