CAPITAL MARKETS AND THE GROWTH OF HOUSING FINANCE

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I am very pleased to be in Armenia and to be invited to participate in this workshop. Although I have been in Armenia only 24 hours, I have done some reading in advance, and among the things I have discovered is that the level of discourse here on housing finance seems to be much higher than in most countries with a similar background.

I am sure that this partly reflects the efforts of the AIPRG. In any case, not only does this bode well for the future of your country, but it also tells me that many, if not most, of you already have a good idea about my topics, namely the methods by which housing loans can be funded through capital markets.

Because of this, I will give only a very brief review of the basic concepts involved and also focus on what may be some new ideas with respect to these schemes, based on my experience in a wide variety of other countries. This will involve some critical analysis of commonly held views in this area.

First, let me start with what I think is the proper beginning. That is to ask the question: why do we bother, when funding housing finance, to look beyond what most countries already have, specifically, deposits in the banking system, to what many countries do not have, specifically, well functioning capital markets and mortgage-related financial instruments for tapping those capital markets? Let me say that I do not consider the usual short answer to this question, namely that long-term loans require long-term funding, to be sufficient.

The fact is that capital markets are not the major source for funding housing loans in most countries. Where they are important, there is usually some historical factor or policy distortion that explains the shift. The fact is that, aside from a few countries with such factors, including the United States and Scandinavia, most long-term mortgages are financed out of short and medium-term bank deposits. Even in Germany, the home of the famous *Pfandbriefe*, the bulk of the loans are financed out of bank deposits.

How is this? The very short answer is that the deposit base in most banks in most economically and politically mature countries already exhibits the key features of long-term funding, namely, stability. The chance that even half of those deposits will leave a given bank in the next twelve months is pretty slim, except, of course, in the case of a crisis.

When a banking crisis comes, however, it is usually the case that it is due to the poor quality of other, usually shorter-term, credits that have undermined the capital of the bank. Moreover, rarely does the ultimate fate of a bank or a banking system depend on whether or not ten to twenty percent of its assets are in long-term residential mortgages and whether those loans are financed out of deposits or bonds.

Of course, Armenia is not economically and politically mature and is in a relatively volatile geopolitical neighborhood. These considerations matter. Moreover, it is true that wholesale deposits and even capital markets are an important supplement to retail deposits in many countries.

Similar questions must be asked about the perspective of long-term investors. Their interest in long-term investments depends on what the structure of their liabilities is. Just because they may have a stable pool of funds, if they have no fixed long-term commitments, *e.g.*, to fixed nominal or real pensions, then their allocation of funds to long-term assets, especially illiquid ones, will depend heavily on the premium they can get for doing so. In any case, it is also worth pointing out that even in countries where such investors do provide much of the funding for housing, it is sometimes through wholesale deposits, not long-term bonds.

Does this mean I see no role for capital-market funding? No, the fact is that it is nice to have it as an option and may even be a requirement in Armenia, if the banking sector remains weak. My point is that access to capital market funding is not, in general, a requirement for the growth of housing finance.

I will come back to this question later.

And I have a second point. In thinking about this issue for Armenia, the question needs to be raised of whether it is likely for the capital markets here to develop extensively enough, both on the supply and the demand side, to support a major flow of funds into mortgages. The banking sector does not appear deep enough to support a large enough and stable enough deposit base to finance most, if not all, of the mortgage stock.

Such an outcome is possible. One possible example is that of Kazakhstan, where the peculiar economic dynamics there has created a large pool of institutional investment funds, out of proportion with the size of the banking sector. Chile, with its large private pension funds, is another possible exception. In both cases, it is not so much the weakness of the banking sector that has driven the shift towards capital-market funding, but rather the huge supply of institutionally invested funds.

Once again, I am not saying that capital-market financing of mortgages is not a beautiful idea. My more general point is that there should be some clear rationale, aside from a perceived requirement to match maturities, before any distortions are introduced in the financial system to actively push lenders to use funds from capital markets.
Let me now discuss briefly the main ways to use capital markets to fund mortgages. These are:

(1) Lender-based corporate bonds;
(2) Lender-based covered mortgage bonds;
(3) Lender-based securitizations;

(4) Corporate bonds issued by a liquidity facility;
(5) Mortgage bonds issued by a centralized mortgage bank; and
(6) Securitizations performed by a conduit.

Many such lists include just three options: covered mortgage bonds, corporate bonds issued by a state-sponsored liquidity facility, and securitizations performed by a state-sponsored conduit. I will explain why I emphasize all six.

The first item, which I have added to the usual list, is to emphasize that banks can and do issue unsecured corporate debt in order to lengthen their maturity structure and diversify their funding sources. In countries without a tradition of covered mortgage bonds, including the United States, the United Kingdom, and in some transition countries, this is common.

On the other hand, the logic of covered mortgage bonds is compelling. A covered mortgage bond is, fundamentally, a standard corporate bond embellished with high quality collateral. Through a proper statutory basis, including strict segregation in case of bankruptcy and some degree of extra supervision, the banks in a country can offer investors a substantially stronger claim on high quality assets in case of default. And, depending on the simplicity of the statutes, they can do so rather cheaply.

In this regard, I find it a little unfortunate that the discussion of mortgage bonds often starts with the German or Danish style of such securities. In both cases, these systems involve special institutions and, therefore, special restrictions that have deep roots in histories specific to those countries. As you can see, I prefer to think of mortgage bonds as simply normal corporate bonds that offer access to special collateral. In general, this collateralization process need not involve special institutions or too much heavy regulation and restriction, although it almost always will require special legislation. In principle, it can be a market-driven process.

My preferred illustration is that of Spain, more precisely, of the mortgage certificates issued in Spain. There, the quality and collateralization process is driven by the desire for a higher credit rating. You want a better rating, you use better loans, offer more collateral, and have more restrictions. There is a relatively low level of statutory restrictions on the process. And it is just as easy to issue such bonds with floating rates or call features as for any corporate bond.

In contrast with covered mortgage bonds, I see mortgage-backed securitization as a more problematic way of funding mortgages. This is not only because it is legally and procedurally cumbersome and the securities tend to be less liquid, but also because its use assumes that there are investors who are better than the lender at handling credit risk and interest-rate risk. In other words, ordinary bonds can remove most liquidity risk, so there must be some advantage to transferring these other risks through securitization as well.

In my view, that is not necessarily the case in most countries and is rarely the case in emerging markets.

But let me back up a moment. As you probably know, asset-backed securitization involves the sale of the assets to a special legal entity that is bankruptcy remote from the lender and is essentially almost a non-entity or invisible as far as taxes and operating autonomy. The cash flows that come from these assets pass through this entity and are distributed to the owners of the securities issued by this entity in ways that are pre-determined at the time of initial structuring.

The big advantage is that all the risks of funding the loans can be (but do not have to be) passed through as well and shifted from the lender. This leaves the lender only having to worry about the actual business of making and collecting on the loans.

But the process of securitizing assets is definitely more expensive than issuing a corporate bond or a mortgage bond. So it will be of interest only when there are advantages to shifting all the risks. And that will not normally be the case.

When might that be the case?

1. When there are business advantages to separating the lending business from the funding business. Example: Lower costs of marketing, origination and servicing if done through a system not tied into the collection of bank deposits and provision of other banking services. This is the main reason that securitization is used in places such as the United Kingdom, Australia, and South Africa. Mexico may be a good example in the developing world.

2. When there are significant interest rate or prepayment risks that cannot easily be dealt with by the lender. This is part of the reason why it is so big in the United States. The strong preference for loans with rates fixed for up to 30 years cannot be funded out of bank deposits with rates fixed for five years at most. On the other hand, in Canada, where borrowers are willing to have their rates adjusted every one to five years, relatively little securitization goes on, despite the presence of a state-guaranteed securitization conduit.

3. When regulatory arbitrage is possible; this occurs when return on capital required to hold these loans is lower for investors than for the lender, usually because of inappropriate regulatory requirements. Example: If the risk weight of mortgages at banks is set the same as for corporate loans, and is substantially more than the real risks, and insurance companies face a lower risk reserve than the banks, then the transfer of credit risk to insurance companies will become attractive. To take another example, if bank regulators let banks keep less capital against mortgage loans when the bank securitizes them yet take back the bulk of the credit risk by holding the equity tranch, then it may also pay to securitize.

My view is that mortgage securitization will not thrive unless one of these conditions holds.

The other point I want to make here is that securitization does not require a state-sponsored conduit such as Fannie Mae in the United States. If the economics of securitization are compelling, individual lenders can pursue it. That is why I list that option separately.

Speaking of state-sponsored entities, they are the next three items on my list. The first of these is the classic liquidity facility. This is because it is also the simplest and the safest from the perspective of a government. It involves lenders bringing their mortgages to the facility and either using them as collateral or executing a repo in order to obtain medium-term funding. Note that it does not include the permanent sale of the loans. The facility then turns around and issues standard corporate bonds, but bonds that effectively have the credit risk characteristics of Spanish-style mortgage certificates, namely excess collateralization and overall matched interest rate structure.

Economically, a liquidity facility is effectively a cooperative for issuing mortgage bonds for the banking sector. Legally, it issues unsecured corporate debt, but this debt is as safe as mortgage bonds because it is backed by segregated mortgage collateral provided by the lenders who seek refinance. Financially, it will be a very low-risk entity if it leaves the credit risks with the lenders, deals only with reasonably sound banks, does not permanently buy the loans, does its own asset-liability management carefully, and has a reasonable amount of capital of its own.

Unfortunately, some confusion has entered into the discussion of liquidity facilities in the last few years. Kazakhstan created an institution, the Kazakhstan Mortgage Company (KMC), which provides permanent refinance for lenders. Russia did this earlier in the form of the Russian Agency for Mortgage Lending. This is not “liquidity” in the sense of temporary funding, but permanent funding. This effectively means that the long-term funding risks, primarily interest rate risks, now belong to the facility. In my mind, that makes the entity a German-style mortgage bank, with all of the headaches that such a structure brings with respect to trying to provide bond funding that matches the interest rate structure and options embedded in the loans.

It can be done, but I would note that the KMC has not done it successfully.

That is why the next item on my list was “Corporate bonds issued by a centralized mortgage bank.” The KMC is a “centralized mortgage bank,” though I would point out that it leaves the credit risk with the lenders.

What is not so well-known is that Fannie Mae has converted itself mostly into a centralized mortgage bank, not a securitization conduit.

And that is the ultimate source of the scandals that you may have heard about involving Fannie Mae. Fannie Mae decided it could make more money by keeping and managing the funding risks of mortgages than by passing them on to investors, so, without really asking anyone, it decided to switch to being more of a centralized mortgage bank rather than a conduit. In so doing, it has taken on huge amounts of additional risk and leaned ever more heavily on its implicit guarantee by the United States government. That is why people like Alan Greenspan have spoken out strongly against these activities.

This mention of Fannie Mae brings us naturally to the final item on my list, the state-sponsored securitization conduit.

Before about 1980, Fannie Mae was also a centralized mortgage bank, but then it almost went bankrupt and thereafter it focused on passing all of the funding risks on to investors. More recently, a number of other countries, including Malaysia, Hong Kong, Korea, and Trinidad and Tobago, have created windows where lenders could sell their loans to a state-sponsored entity that would then securitize them.

According to my earlier arguments, the motivation for doing so must have been that investors could manage the funding risks better than the lenders. So far, that observation has been supported. The fact is that this sort of advantage does not exist in these other countries and, therefore, these entities do relatively little securitization business aside from special circumstances, such as securitizing loans made by state-entities without access to funding sources like deposits.

Now that I have discussed all six options for accessing the capital markets, let me add one more issue associated with the last three of them, namely the approaches that involve creation of a state-sponsored entity.

That issue is that, if such an entity is created as a parastatal agency, it will be subject to forces that may corrupt its purity. In other words, once an entity appears as an instrument of non-distortive or low-distortion policy, it tends to be utilized for more intrusive purposes.

There are three versions of this sort of problem. One is KMC's story. It really started functioning as a centralized mortgage bank in 2002 and was doing pretty good business, mostly, but not totally, in a low-risk manner.

Then the President of Kazakhstan decided to strengthen his popularity with the masses by setting up a large-scale mortgage scheme. To deliver this scheme in a timely fashion, he utilized a convenient institution, the KMC. But embedded within this program is a potentially high-risk activity, making long-term fixed nominal rate mortgages. This simple step changed the KMC from a low-risk, potentially privatizable entity into a high-risk, never privatizable entity requiring a state guarantee.

The same forces are coming into play in Ukraine as we speak.

The second version of this form of moral hazard is where the entity fails to gain much business and pressures arise to introduce sufficient subsidy to make the high-profile state initiative a financial success. An example of this is the mortgage bank set up by the Hungarian state in 1997. It never even tried to do its initial business, credits for agriculture, because it was clearly not feasible and was soon redirected to housing finance. But it could not do that profitably either, so then a subsidy was introduced. Soon the subsidy grew larger and eventually was extended to other lenders, but only if they took the form of mortgage banks and issued mortgage bonds. Within a few years, enormous fiscal resources were, and still are, being directed to a truly wasteful system of running most of the mortgage sector through the mortgage bond market.

Similarly, if Armenia creates a liquidity facility and it turns out not to be financially successful because banks do not want or need it, will it be granted more powers or subsidy?

The third version of this idea is when the state succeeds in privatizing the entity but does not fully remove itself, *i.e.*, leaving some sort of implicit state guarantee. This is the Fannie Mae situation, and the downside of mixing state guarantees with private profit-making incentives has become clear.

All three of these versions stand as a warning that getting the right balance of private sector protection from political abuse and public sector protection from private abuse is not easy. They serve as reminders of the risks of venturing down that path that should be weighed against the potential advantages.

One way of summarizing what I have been arguing is that: (1) bank deposits may be enough to fund most or all long-term residential mortgages and (2) that all devices beyond enabling simple, covered mortgage bonds have problems. The policy implication of this is that all actions over and beyond passing the legislation needed to use capital market instruments should be considered carefully.

This is not to say that state intervention is never appropriate. It is to say that it should be clearly stated why it may be appropriate. For example, it may be essential to developing capital markets for other users or for meeting the need of new institutional investors or for dealing with the prepayment risk of fixed rate lending.

My view is that the inherent disadvantages should be weighed against these possible advantages. And the actual ownership and control structure needs to be crafted carefully to minimize the potential disadvantages.

I do want to emphasize that these are only my personal views and many may disagree with them. Also, I do not come to Armenia with any preconceived notions about what is best for your country - just the opposite, in fact - I come with a strong presumption based on long experience that every country is different and that there are no standard answers. I look forward to learning about your situation and helping with the dynamic development of housing finance in Armenia.