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Lessons from the US Subprime Mortgage Mess

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Stunning developments have taken place in the US housing and housing finance markets. From an unsustainable boom in US housing markets, we have watched a massive contraction in activity since 2006, evidenced by plunging housing starts, sales and prices. The consequences have been truly painful for many. Numerous homeowners are struggling with mortgages they cannot afford. Major banking and other financial institutions here and abroad have suffered enormous losses, and their ability to conduct normal lending activities is impaired. And the whole sorry episode has contributed to diminished respect internationally for the integrity of the US financial system and its guardians, perhaps most conspicuous in the decline in the value of the dollar in foreign currency markets since the crisis broke out last summer and a worrisome escalation of commodity prices, not least crude oil.

What can the emerging markets learn from this fiasco? Before suggesting a few lessons, let me start with a few points that might help put the current mess in some perspective.

1. Securitization of mortgages is not new. Securitization – that is, the pooling together hundreds or thousands of individual mortgage loans into a mortgage-backed security, MBS, that can be sold to institutional investors much like a traditional corporate bond – got started in the early 1980s. That was a time when high inflation and correspondingly high interest rates were making it almost impossible for many commercial banks and savings & loan associations to offer mortgages. Within a few years, the useful innovation had caught on to such an extent that over half of all outstanding mortgages were securitized (the rest were held mostly by banks and thrifts). Here's some useful data, drawn from the Federal Reserve's Flow of Funds accounts, showing how quickly and pervasively mortgage securitization caught on:

Mortgage Securitization: **From humble beginnings to central part of the system**

	1975	1980	1985	1990	1995	2000
Total mortgages $ trillion	0.46	0.96	1.52	2.62	3.46	5.13
% securitized	5.3	11.1	25.2	39.9	50.2	54.8

Source: Federal Reserve Board, Flow of Funds

[I left out the more recent data until later: since 2000 the market has had a new element: explosive growth in subprime mortgages and a different way of securitizing them, but I will come back to that shortly.]

2. Securitization done prudently provides immense benefits to nearly everyone: borrowers, investors, and the banks who engineer the process. From humble beginnings, securitization blossomed because it is a superior way of doing the business. Its inventors recognized that the traditional business practiced by banks and thrift institutions of originating mortgage loans, doing the servicing of those loans in-house, and holding them on their balance sheets posed enormous problems. Those problems were especially nasty when short-term interest rates were elevated or when individual cities and towns encountered localized economic distress. It was far more efficient to divide the single business model into three parts, with specialization in origination of mortgages, loan servicing, and investing. By this separation, large mortgage-market participants could amass expertise and advanced technology. And they could do it on a national playing field, reducing the risk of undiversifiable geographic lending concentrations that were often the bane of many local banks and thrifts.

3. Securitization couldn't have thrived without indispensable government support. Mainly that came from GNMA, FNMA, and FHLMC, commonly referred to as Ginnie Mae, Fannie Mae, and Freddie Mac. These government-sponsored enterprises, GSEs, facilitated the bundling of loans into MBSs, most importantly by taking over the risk of loss through default by individual homeowners on their mortgages and by setting high standards on the quality of the mortgages that they were prepared to guarantee (called "conforming" mortgages). That meant that buyers of pass-through securities (the simplest kind of MBS) didn't have to worry about credit risk so they could focus on the very difficult, but manageable, exposure to market risk that they took when investing in mortgage-backed securities. The private markets couldn't do it alone, but didn't have to, because of the integral role of the GSEs in the financial system.

4. Until the early 2000s, subprime mortgages represented a modest, almost inconsequential, part of the mortgage financing system. But by about 2002, things were changing rapidly. What happened? First, Fannie and Freddie, stockholder-owned and privately-managed since the early 1990s, lost control of their operations. They got in the habit of doing more than absorbing credit risk and facilitating securitization but instead began to hold more and more mortgages in their own portfolios, financed through borrowing (relatively cheaply because of an implied US Government safety net) in the capital markets. Some market professionals thought of them as running the biggest hedge funds in town. But in so doing they were taking huge market risks and relied on massive transactions in financial derivatives in order to try to hedge the risks they were taking. They handled this badly and for years their financial accounts have been a mess. CEOs and CFOs were replaced, fines were paid, and their overseer, OFHEO, essentially put limits on their growth until they got their financial houses in order.

5. This opened the door for major players in the private sector to move into the home mortgage financing business in a major way. And that included pushing the envelope on creditworthiness of borrowers. Long-tested rules of thumb on what once constituted sound banking practices went out the window. By 2006, upwards of 40% of all new mortgages being originated were subprime or Alt A, i.e. deficient in some ways. It created a time-bomb when these loans were securitized through privately-issued MBS or then recombined into collateralized debt obligations, CDOs. These are complex securities comprised of a variety of MBSs and other financial instruments, often involving substantial leverage. Last summer, they became almost unmarketable when buyers realized the potential for loss was far greater than they had ever imagined.

6. The growth in mortgage-related securities by what the Fed calls "asset-backed securities issuers" was stupendous. The data are in the chart below. From a relatively modest level, private securitization, increasingly involving subprime mortgages in the 2002-2007 period, has taken on an increasing and probably inordinate share of overall mortgage financing business:

US Mortgage securitization in this decade, end of period

	2000	2002	2003	2004	2005	2006	Q3 2007
Total home mortgages $ trillion	5.13	6.44	7.23	8.28	9.34	10.42	11.03
Total % securitized	54.8	56.1	53.6	52.1	53.5	55.4	57.0
% securitized privately	7.5	8.5	9.2	12.7	16.7	19.7	19.8

Source: Federal Reserve Board, Flow of Funds

7. The US financial regulatory system was ill-equipped to deal with abusive lending practices of financial institutions not under the formal supervisory authority of the Fed or other traditional bank regulators. The majority of mortgage banks fell between the cracks. That was dangerous once their role in the mortgage financing suddenly escalated. As the housing boom fueled soaring home prices, large numbers of potential home buyers were eager to get in on the action. Many were not creditworthy under normal standards. But the mortgage bankers developed variations on conventional loans to allow them to borrow. Subprime mortgage products offered low teaser rates to attract customers. They let applicants lie about their incomes and put up small or even zero down payments. But those borrowers would have to accept stiff prepayment

penalties, a sharp break from normal US customs, and agree to pay sharply higher interest rates when their initial low rates were adjusted in a year or two. A more responsive regulatory system would have stepped in to catch the most abusive tactics before thousands were trapped in loans they would likely not be able to carry.

8. The ratings agencies made poor judgments and were subject to intense conflicts of interest, since their compensation was paid by the issuers. They awarded high ratings evidently with little or no evaluation of the likelihood of default should house prices fall back.

9. Institutional investors were lazy and cheap: lazy, because they relied almost entirely on credit ratings rather than performing their own due diligence; cheap, because they didn't pay outside experts to "stress test" the conclusions of the ratings agencies under differing scenarios.

10. And many borrowers cynically got themselves into trouble by assuming that the housing price boom would go on forever. Instead they chased the dream of becoming mini-real estate speculators, while subjecting themselves to high and escalating interest rates in return for not having to tell the truth about their incomes and not having to put up sizable down payments.

In short, there is more than enough blame to go around.

What are the lessons for emerging market countries of this sordid episode in financial history? Here are a few, though hardly an exhaustive list:

First, emerging market countries that have big current-account surpluses and are building up large holdings of assets in global capital markets need to be exceptionally careful about the risks they are exposed to. Many are too often seduced by clever sales pitches of investment bankers or, even worse, invest their funds solely according to credit ratings. Neither are sound practices. Either they must do their own due diligence or they must hire experts to evaluate the risks separately from what the salesmen or the rating agencies say.

Second, for emerging market countries that have current-account deficits and are net recipients of foreign capital inflows, it is essential to diversify sources of funding. Relying on a handful of very large, no matter how well-known, banking institutions does no good when some of them face financing problems of their own.

Third, diversification of funding sources requires a special commitment to attracting private equity capital. And that means permitting equity investors to earn large rates of return if they are successful. When envy at the profit-making ability of talented investors leads to exorbitant taxes or restrictions on profit remittances, the result is to stunt emerging market growth.

Fourth, internal financial modernization must go hand in hand with securing external funding sources. Savers need to be able to get market rates of return. Domestic banks need to be allowed to provide credit without politically-motivated directives. Capital markets need to be encouraged.

But fifth, it is essential to construct a system of financial supervision and regulation staffed by well-trained professionals to oversee risk-taking and financial health of domestic banks and other large financial institutions. Detecting fraud and abusive lending practices should be a part of that system.

Sixth, securitization, whether of home mortgages, commercial mortgages, or commercial and industrial loans, can play a useful role, but not for everybody. It requires prior establishment of what we call a financially capable "buy side." That includes institutions such as insurance companies, pension funds, and others of a size strong enough to do the work of evaluating the reward and risks of investing in securitized instruments.

One of the unfortunate by-products of the recent financial disturbances is that officials in emerging markets have lost a certain amount of faith in the validity of the financial mechanisms of the advanced countries, not least the United States. There is no perfect system and even good ones can spin out of control. The

message is to learn from the mistakes of others, take the best parts of the approaches of different countries and craft one of your own that most suits your size, stage of development, and sophistication of domestic financial institutions. Mistakes will be made even with this tailor-made composite but maybe they will be easier to fix when all of the principal players have a stake in its creation.