Sustainable development of housing finance markets – An international perspective after the crisis

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Abstract:

Like Michel Ende's novel "The Never-ending Story," it seems that house price bubbles tend to occur at regular intervals. Due to the interlinkages with the banking sector, a bursting property bubble often leads to a banking crisis, damping economic growth and destroying prosperity. The objective is to show the relationship between property and bank lending. The factors which fuel a housing bubble will be discussed and the indicators pointed out that help identify rising house price inflation. In conclusion an analysis is given of the future prospects of property markets in advanced economies and in emerging markets.

[1] The findings, interpretations, statements, and conclusions expressed herein are those of the author alone and do not necessarily reflect the views of the International Bank for Reconstruction and Development/The World Bank and its affiliated organizations, or those of the Executive Directors of The World Bank.

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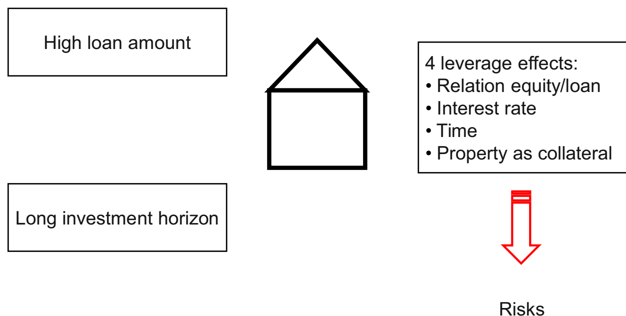
"Banks are leveraged and property is leveraged, so there is double leverage," says Brian Robertson of HSBC.[2] As will be shown, property cycles are closely related to banking activities. The previous six banking crises in advanced economies before the latest crisis in 2008, had property at their heart (Spain in the 1970s, Norway in the 1980s, and Sweden, Finland, the UK, and Japan in the 1990s). These crises tended to happen at the peak of housing booms, or just after a price collapse.

Subsequently, the specific characteristic of housing investments financed with mortgage loans will be outlined; thereafter the sources of housing bubbles will be discussed, followed by indicators that could identify a housing bubble. Lastly, the prospects for the future development of property markets will be discussed, including recommendations on how future bubbles could be prevented. Examples from advanced economies and emerging markets will be used throughout.

1 A house – a risky and volatile asset

A house is typically the biggest single asset of a private individual. Typically, 80-90% of the purchase price or construction cost is financed by a loan. This financing structure exposes the borrower to a number of risks. Chart 1 serves as an illustration:



Source: Roy

Chart 1: Leverage effects in a housing finance transaction

- High leverage and fluctuating interest rates. Only a thin layer of equity is available to protect the borrower. In case house prices fall, the borrower will be quickly pushed into negative equity. The term structure of the mortgage loan may reinforce this effect, especially if interest rates are variable or can only be fixed for shorter duration than the agreed financing term. If interest rates increase, the borrower may not be capable of repaying the mortgage loan.
- Duration of the loan. The duration of a mortgage loan is typically 25 to 30 years. This time span may involve a set of unknowns which could lead to

[2] Bricks and Slaughter – A special report on property. *The Economist*, March 5, 2011.

a borrower's default (e.g. unemployment, sudden increase in interest rates, etc.).
- A dwelling or a house is an indivisible good. In comparison with a share portfolio which allows an investor to sell parts of his or her holdings, a borrower cannot sell a part of his or her house (e.g. kitchen) in case of payment difficulties.

The leverage at the individual household level is reflected in the economy. The aggregate value of property held by private households in developed countries amounted to about 48 trillion USD in 2002 and it reached its peak at around 60 trillion USD in 2007. After the so-called collapse of the global financial system in 2008, the value was still estimated at about 52 trillion USD, which accounts for about 67% of the developed countries' combined GDP.

Most of this wealth can be found in the banks' balance sheets. Banks are especially prone to fluctuations in the property markets because property is regularly offered as collateral in a loan agreement. Not only private households offer property as collateral but also small and medium-sized companies tender property as collateral in loan applications. As a result, property accounts for a major portion of the financial system's aggregate balance sheet.

Another reason for the considerable share of property in the banks' balance sheets is that mortgage loans are subject to lower capital charges than most other assets. This regulation is based on the assumption that the property will retain some value if the borrower defaults. The apparent safety of property as an asset class may lead to the false conclusion that lending against property is prudent. Although collateralized lending offers a certain protection to the individual lender, it implies considerable systemic effects:

Property reinforces pro-cyclical effects in the economy. In a boom, rising property prices increase the value of the collateral held by banks, which usually incentivizes banks to increase their lending activities. The availability of easier credit means that property can sell for more, driving up house prices further. This correlation works in the opposite direction as well. When house prices fall, lenders react with tighter underwriting standards, forcing borrowers to sell and accelerating the decline in prices. Given the importance of property in the banks' balance sheets, losses from real estate busts are likely to be synchronized across banks.

Property absorbs an oversupply of credit. The safety net governments have placed under financial systems after successive crises has permitted banks to borrow and lend more against a shrinking capital base in pursuit of higher returns. A great deal of the free liquidity was absorbed by lending backed by property as collateral. Assessments from rating agencies gave additional reassurance that risks in property were low.

Besides leverage, the inefficiency of property markets is another reason for property being a risky and volatile asset. Property appraisals are subjective, and the price of a property is set locally by recent transactions. The value of any particular home,

and the amount that can be burrowed against it, is largely determined by whatever a similar house nearby sells for. In addition, houses are not fungible goods like equities or bonds. A uniform price for a number of houses cannot be determined. The law of one price does not apply to properties.

The absence of fungibility does not allow for short sales.[3] Individual properties and neighborhoods differ, which make it difficult to construct accurate hedges. For example, it is impossible to borrow the Empire State Building in order to sell New York real estate short.[4] Short sales are an important indicator, however, in identifying overpriced goods. Short sales were behind the identification of the ENRON scandal.[5]

In conclusion, systemic effects of property prices reinforce pro-cyclicality within an economy and have a considerable impact on the banking sector, households and the government, mainly caused by the leverage in lending with property as collateral.

The pro-cyclical behavior is the result of an absence of short-sales and disaster myopia which is defined as the economist's argot for the tendency to underestimate the problem of low frequency shocks which often occur at the beginning of an upcoming housing bubble. Another factor is the interaction of myopia and competition. When lending by myopic banks pushes property prices above fundamental values, more prudent banks are either priced out of the market or forced to drop lending standards. Other myopic banks see the high returns and enter the market. As the returns of the banks start to erode, banks take on more leverage and risk to protect their return on equity. Disaster myopia then leads to disaster magnification in the downturn.[6]

A housing policy framework which supports homeownership could be another factor which incentivizes more investments in property. This is described in more depth in the next section.

2 Sources of housing bubbles

"Rekindling the dream of homeownership for America's working families can prepare our nation to embrace the rich possibilities of the twenty-first century," as Pres-

3 A short sale is the sale of a stock someone does not own. Investors who sell short believe the price of the stock will fall. If the price drops, you can buy the stock at the lower price and make a profit. If the price of the stock rises and you buy it back later at the higher price, you will incur a loss (definition from U.S. Security and Exchange Commission, http://www.sec.gov/answers/shortsale.htm).

4 Bricks and Slaughter – A special report on property. *The Economist*, March 5, 2011.

5 The Enron scandal, revealed in October 2001, eventually led to the bankruptcy of the Enron Corporation, an American energy company based in Houston, Texas, and the dissolution of Arthur Andersen, which was one of the five largest audit and accountancy partnerships in the world. In addition to being the largest bankruptcy reorganization in American history at that time, Enron was attributed as the biggest audit failure (from Wikipedia, the free encyclopedia).

6 Plender, J. Overarching Problems. *Financial Times*, January 27, 2011.

ident Clinton wrote in the preamble to the National Home Ownership Strategy, the goal of which was to expand home-ownership (in 1995). As evidence mounted in the early 1990s that more and more Americans faced stagnant or declining incomes, the political establishment started looking for ways to help them with fast-acting measures. Unequal access to quality education was identified as one major reason for the rising income inequality. The provision of affordable housing, especially for low income groups was considered an obvious answer to this problem.

With the help of Fannie Mae, Freddie Mac, the Federal Housing Administration (FHA) and the Department of Housing and Urban Development, the access to cheaper credit could be realized, setting the stage for a boom in low-income housing construction and lending. In June 2008, Fannie Mae and Freddie Mac, FHA and other government programs were exposed to about 2.7 trillion USD in loans,[7] approximately 59% of total subprime and Alt-A loans.[8] Initially, this housing policy was a success. The homeowner ship rate increased to nearly 70% in 2004.[9]

A monetary policy concentrating on low interest rates provided further support to the favorable housing policy framework.[10] Additionally, the development of new financial instruments which allowed many new borrowers to enter the mortgage market, as well as more enhanced and more sophisticated securitization techniques incentivized investors to take on higher credit and liquidity risks. There was a widespread belief that financial engineering was capable of taming risk by better tailoring exposures to investors' risk preferences. The securitization of subprime mortgages combined with a heavy appetite for these instruments in countries such as Germany, Japan, China and other emerging markets fuelled the perception that house prices would continue to climb forever.

A couple of other factors undermined the perception that the rise in house prices in the U.S. was on a stable footing:[11]

- The United States was considered special because of the world's most reliable system of financial regulation, the most innovative financial system, a strong political system, and the world's largest and most liquid capital markets. It could withstand huge capital inflows without worry.

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[7] An Alt-A mortgage, short for Alternative A-paper, is a type of US mortgage that, for various reasons, is considered riskier than A-paper, or "prime," and less risky than "subprime," the riskiest category. Alt-A interest rates, which are determined by credit risk, therefore tend to be between those of prime and subprime home loans. Typically Alt-A mortgages are characterized by borrowers with less than full documentation, lower credit scores, higher loan-to-value ratios, and more investment properties.

[8] Rajan, R. G. (2010). *Fault Lines – How hidden fractures still threaten the world economy*. Princeton and Oxford: Princeton University Press, p. 38.

[9] By 2010 it decreased by 5 percentage points to 65% as result of the collapse of the housing markets (according to latest Census of April 2010).

[10] For a more in-depth discussion on US interest rate policy, see the chapter written by Daniel Kienzler.

[11] Reinhart C. M., & Rogoff K. S. (2009). *This Time is Different – Eight Centuries of Financial Folly*. Princeton and Oxford: Princeton University Press, p. 214.

- In addition to these strengths, the United States was seen as having superior monetary policy institutions and monetary policy makers. One fact which was overlooked was that most of the mortgages were transferred into trusts which were not supervised and regulated by the banking supervisors like the Federal Reserve ("shadow banking system").
- Because of increased global financial integration and deeper global capital markets, it was possible for countries to go deeper into debt. In a time of low interest rates, securities with mortgages as underlying collateral were considered an alternative to government bonds offering a higher return by only minimally increasing risk.
- Given all these strengths, the capital markets of the United States offered to rapidly emerging economies a secure place to invest their surplus funds for diversification purposes.

The availability of cheaper credit did not only fuel a housing boom in the United States, but also in Western, Central and Eastern Europe. For example in Serbia, the volume of mortgage loans grew by 244% in 2005. In Bulgaria, the ratio of mortgage lending to GDP rose by 1.4% (2004) to 2.1% (2005), while house prices surged by 47% and 36.5% in the two countries during the same years.[12] Chart 2 illustrates the trend in Bulgaria.

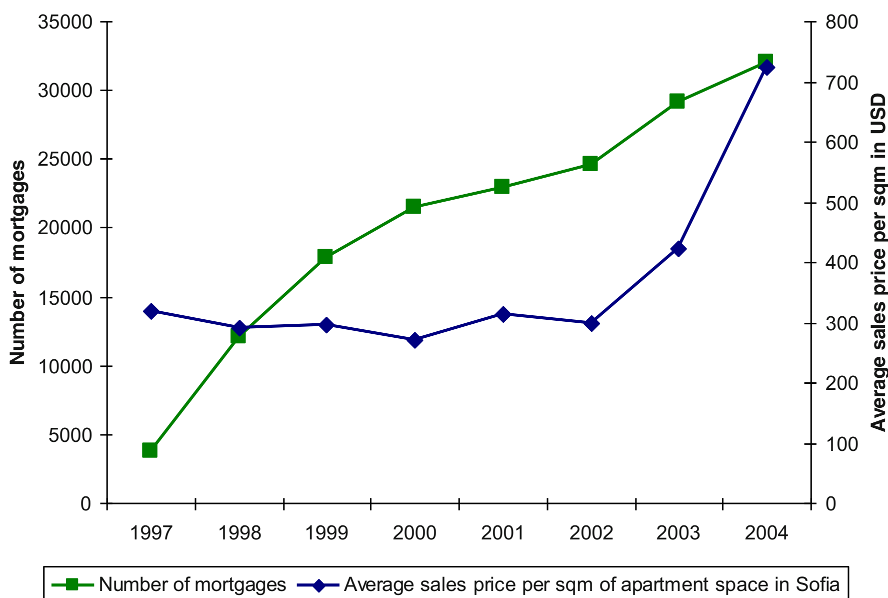

Chart 2: Correlation between supply of mortgages and house prices in Bulgaria (1997–2004)

[12] EMF Hypostat 2005 (2006). A review of Europe's Mortgage and Housing Markets. European Mortgage Federation: Brussels, p. 129 and p. 138.

Macroeconomic reforms in Central Eastern Europe helped stabilize interest rates. Another important factor was the availability of cheap loans denominated in foreign currency. These loans triggered a lending boom, especially in Hungary, Romania, Bulgaria, and the Baltic States. Chart 3 shows the increased share of mortgage loans denominated in foreign currency compared with all mortgage loans. A third factor was a loosening of underwriting standards to attract more borrowers.

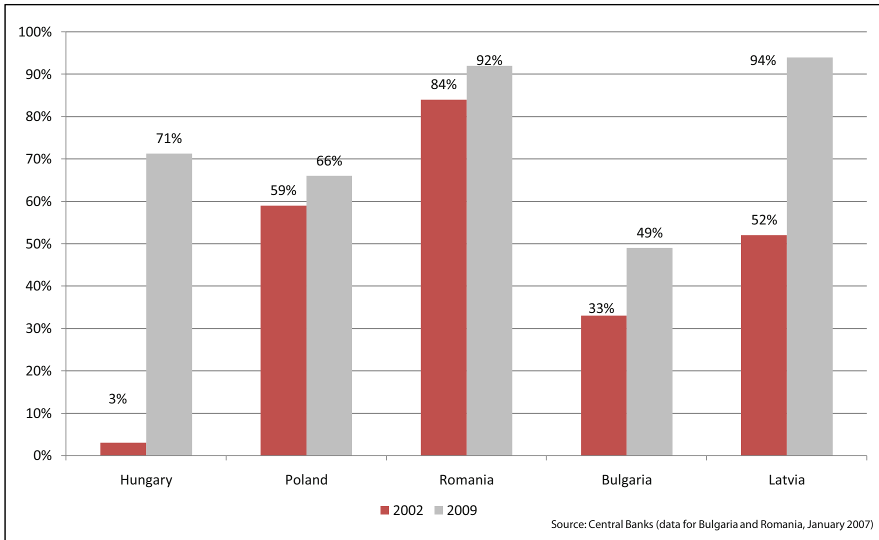

Chart 3: Share of mortgage loans in foreign currency to overall mortgage loan portfolios

In Hungary, for example a considerable share of the loan portfolio was denominated in foreign currency: about 66% of all loans were granted in Swiss francs (CHF) and, consequently, borrowers were exposed to significant foreign currency risk. The rapid expansion in mortgage lending was mainly fuelled by two elements:

- Generous subsidies (from 2000 to 2004). In 2000, two interest rate subsidies were introduced:[13] (i) an interest rate subsidy on mortgage bonds and (ii) an interest rate subsidy for loans which were connected with new construction. The third element in the subsidy program was the personal income tax mortgage payment allowance.[14]

[13] See, Hegedus, J. (2009). *Housing Policy and the economic crisis – case of Hungary, Budapest*, p. 7.

[14] This subsidy entitled the borrower to deduct 40% of the mortgage repayments (principal and interest) up to a maximum of 240,000 HUF (about 1,300 USD) from the tax payment. See Hegedus, J., & Somogyi, E. (2005). An Evaluation of the Hungarian Mortgage Program 2000–2004. In Struyk, R., & Hegedus, J. (Ed.), *Housing Finance – New and Old Models in Central Europe, Russia and Kazakhst*an. Open Society Institute: Budapest, p. 192.

- Cheap funding for banks in foreign currency (2004 to 2008). Since the cost of the mortgage subsidy program exceeded estimations,[15] the government cut back the subsidies. However, this did not hold back the further expansion of the market due to the access of Hungarian banks to cheap funding in foreign currency (fx).

With the boom accelerating in 2008, most lenders lowered mortgage lending standards. Lenders were not able to compete on interest rate, as the aggressive offer of fx loans had already substantially lowered interest rates on mortgages and further reductions would have eliminated their lending margins. In particular, loan-to-value ratios[16] and payment-to-income ratios were increased. It was also regular practice to take into consideration informal incomes in the creditworthiness assessment of the applicant. Another feature of mortgage loan origination was the widespread use of brokers by most lenders to attract borrowers. Although brokers did not grant the loans, the loan quality of loans originated by them was considered lower than those originated in the bank branches.

One reason for the attractiveness of borrowing in foreign currency was the interest rate difference between loans denominated in Swiss francs (CHF) and Hungarian forints (HUF) although borrowers did not take into consideration the currency risk. For a mortgage loan denominated in CHF, the interest rate was in the range of 4-5%, whereas for HUF denominated mortgage loans, the interest rate was about 16%.

In conclusion, a housing policy framework which focuses only on the support of homeownership and ignores economic realities is likely to fuel a housing bubble. Housing policy makers are advised to balance carefully their policy goals against the possibility of creating a bubble. Policies which limit, for example, loan-to-value ratios and affordability ratios may help to achieve this balance. Other supportive factors are loosening of underwriting standards and the availability of cheap loans.

Interestingly, the magnitudes of the declines in real housing prices from peak to trough are not appreciably different in emerging market and advanced economies. Which indicators can be used to identify and explain a housing bubble? The next section aims to provide clarity to this question.

3 Indicators to identify housing bubbles

When the housing bubble in the United States burst, the repercussions were felt throughout the whole world. When the investment bank Lehman Brothers declared bankruptcy in September 2008 and considering the following events, it became

[15] By 2003, the Government spent on subsidies about 153 billion HUF (against a projected cost of 42 billion HUF by 2005).

[16] The loan to value or LTV ratio of a property is the percentage of the property's value that is mortgaged. If one divides the mortgage amount by the lesser of either the appraised value or the selling price, one gets the LTV.

clear that the collapse of the U.S. housing market had been transformed into a global financial crisis.

In Western Europe, especially Spain, Ireland and the UK, also experienced a collapse of their housing markets. Countries like Germany, Austria and Sweden imported the crisis, either through investments of their banks in U.S. mortgage backed securities or through their exposure to bank lending in Central and Eastern Europe where the markets also went bust. Overall, the fall in house prices erased more than 3.4 trillion USD of household wealth in 2008.[17] Chart 4 shows the development of house prices in Western Europe before and after the crisis.

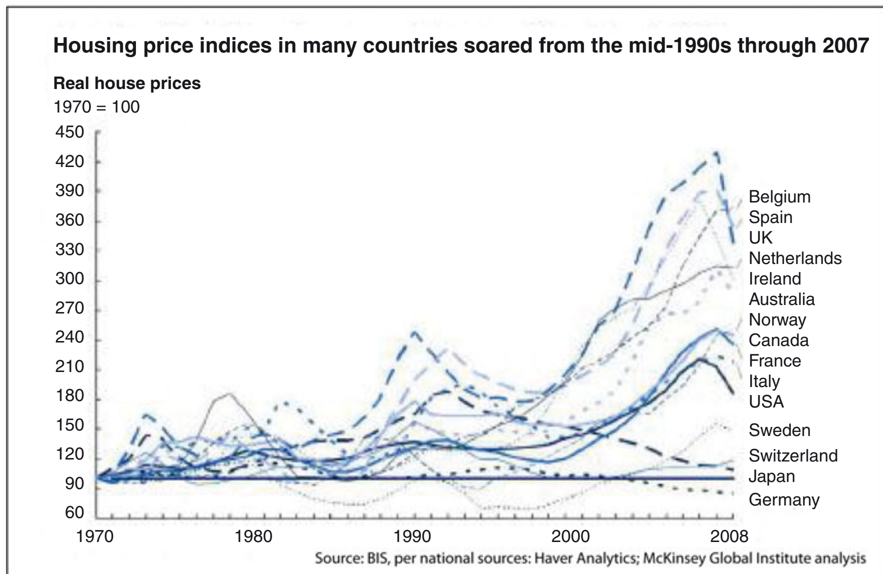

Chart 4: Development of house prices in Western Europe from 1970 to end 2008

In emerging markets, a different picture emerged in the aftermath of the global financial crisis. As shown in Table 1, three scenarios can be identified:

Table 1: Different developments in emerging markets after the crisis

Downward trend	Stable development	Upward development
Hungary, Romania	Most countries in Sub-Saharan Africa	Brazil
Mexico	Korea, Malaysia	Jordan, Lebanon
South Africa	Colombia	China

Source: Roy

[17] Roxburgh, C., Lund, S., et al. (2009). *Global capital markets: Entering a new era*. McKinsey Global Institute: Washington, Seoul, San Francisco, London, p. 11.

1. Downward trend. As already discussed above, many markets in Central and Eastern Europe contracted during the global financial crisis. For example, house prices in Estonia fell by about 20%. Similarly hard hit were Mexico and South Africa. One of the main reasons was that long-term funding for mortgages was no longer available. South Africa experienced considerable capital outflows and in Mexico, private lenders exited the market.
2. Stable development. The global financial crisis had only a limited impact on housing markets. Either these countries were not integrated in the global capital markets (most countries in Sub-Saharan Africa, except Nigeria, Kenya and South Africa) or these countries had already experienced an economic contraction in earlier years which had been caused by the collapse of their domestic housing markets, and they had implemented appropriate measures aimed at avoiding these crises (e.g. Thailand, Colombia).
3. Upward development. In comparison with other countries, these countries are experiencing economic growth followed by rising incomes and increased availability of mortgage loans (e.g. Brazil, China). Another reason is the gap between supply and demand for houses which has pushed house prices upward (e.g. Lebanon).

House prices in China have risen over 53% over the last four years. In 2009, they increased by 25% and in 2010 an average increase of 19% was recorded. The rise was driven by a rapid expansion of liquidity (due to a fiscal stimulus package and monetary expansion) as stock market prices were less attractive and the real return on bank deposits was negative. Although rising incomes and an ongoing urbanization would justify rising prices, an assessment whether the recent price rises indicate a housing bubble, appears warranted.

The following indicators serve to identify a housing bubble:

Development of price-rent ratio: The development of the price-rent ratio is of particular interest for investors because a rising ratio suggests that an increasing share of an investor's expected return stems from expected capital appreciation, i.e. from potential future rental growth, rather than from current rental returns. This implies that speculative motives play an increasing role. According to Deutsche Bank Research, this indicator points to a sizeable overvaluation of house prices for most regions in China.[18]

House price income ratio: This measures the affordability of housing. Data sets indicate that prices have grown much faster than income, i.e. overall housing affordability has declined. Deutsche Bank Research calculated that it would take

[18] Clemens, U., Dyck, S., & Just, T. (2011). *China's housing markets: Regulatory interventions mitigate risk of severe bust*. Deutsche Bank Research: Frankfurt, p. 3.

almost 20 years of annual income growth of 10% for China to reach similar affordability ratios as Germany or Spain.

Supply side developments: The number of houses completed and vacancy rates are suitable indicators to describe changes in the supply of houses. House price rises and the increased availability of credit is poised to drive supply of housing. The Chinese Government has recently implemented a number of measures (e.g. introduction of a property tax in the first quarter of 2011, home purchase bans, mortgage restrictions, etc.) to curb speculative demand (especially in the luxury segment), but has also tried to stimulate the supply of public and affordable housing. In 2010, the overall supply of housing decreased.

Rising vacancy rates indicate a growing oversupply of houses. Currently, overall vacancy levels are low in all Chinese cities. The highest vacancy rate amounts to 4.5 % of the housing stock (in Yinchuan).[19] Thus, the supply side indicators do not signal an overvaluation.

Demographic trends: Population growth and the urbanization rate serve to describe the impact of demographic trends on house prices. A strong population growth is an appropriate indicator of rising house prices. China's population is about 1,3 billion and is anticipated to peak at 1,4 billion by 2030 and then slowly start declining.[20]

High urbanization rates signal an increasing demand for housing in cities. According to recent estimates,[21] the urban population in China is expected to increase from 572 million in 2005 to 926 million in 2025. By this date, 221 cities are expected to have more than 1 million inhabitants each and 8 megacities with a population exceeding 10 million each. The massive urbanization will put substantial pressure on availability of land, financing and the development and construction industry. Pressure on house prices is expected to come from the urbanization trend. Population growth may not play an important role.

Availability of credit: The increased availability of housing credit may lead to higher house prices. From 2004 to 2009, the volume of outstanding mortgage loans increased from 1,500 billion RMB to 4,600 billion RMB (about 710 billion USD). The ratio of mortgage loans to GDP amounted to about 15.3% (in 2010).[22] Mortgage loans and loans to developers accounted for 20% of total outstanding loans. Lending standards are understood to be prudent. However, these data may conceal a less positive picture:

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[19] Clemens U., Dyck S., & Just T. (2011). *China's housing markets: Regulatory interventions mitigate risk of severe bust*. Deutsche Bank Research: Frankfurt, p. 6.

[20] Rosenberg, M. (2010). China's population. http://geography.about.com/od/populationgeography/a/chinapopulation.htm.

[21] Renaud, B. (2009). *A Systemic View of Housing in China's New Urban Area*. Seoul: Presentation at KDI School.

[22] Home Truths: China's property market. *The Economist*, May 27, 2011.

- It is probable that property appraisal values in loan agreements have been overstated to allow for higher loan-to-value ratios and hence higher loan amounts.
- A sharp increase of wealth management products has fueled securitization. Banks move loans off-balance sheet and obtain capital relief by packaging them into wealth management products sold to investors through trust companies. This form of securitization is capable of hiding the true performance of loan portfolios and may distort data on defaulted loans.
- The real exposure to public sector debt through “local government financing platforms” is difficult to determine. Not being allowed to borrow directly, many local governments circumvent the prohibition by establishing companies to borrow on their behalf, using land as collateral. If there is a sudden decline in land prices, the banks which lend to these companies could see their capital base eroding due to an increasing number of defaults from this source.[23]

In conclusion, a number of indicators help identify a bubble. For China, a clear answer cannot be given due to wide differences among cities. House prices in the top 5 cities (Shanghai, Beijing, Guangzhou, Shenzhen, Tianjin) have risen above fundamental justified levels, leading to decreased housing affordability and implying political and social risks.

It seems that government policies have been effective in slowing overall house price growth in the country. However, the risk of a severe bursting bubble is still apparent. Even in case of a more benign slowdown, the construction sector and related industries are facing a potentially big negative impact. Additionally, the effect on the banking sector is difficult to determine as the level of distorted property valuations of those properties offered as collateral is unknown and the debt levels of local governments are not disclosed.

It is considered unlikely that the situation in China will develop along the lines seen in the United States and Spain. Pent-up demand and overall macro-economic dynamics are still strong. Although the exact exposure of the banking sector is impossible to determine, it is at least limited to Chinese lenders. Repercussions are therefore unlikely to be felt by banks in other countries.

China is presented as an example of a booming housing market. Another booming market is Brazil. Their current experience is the opposite of what is occurring in most developed countries. When will these markets in these countries return to their growth paths again? What are the prospects of housing markets? The next section provides interesting answers.

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[23] Renaud, B. (2011*). Housing Bubbles in China: how do we analyze them?* Washington DC: Presentation given at SAIS course. Miles, J. Special Report on China: Rising power, anxious State. *The Economist*, June 25, 2011, p. 11. The debt volumes of these companies are estimated at 14,000 billion RMB (about 2.1 trillion RMB). See Rabinovitch, S. Emphasis on explicit debt hides extent of Beijing’s local liabilities. *Financial Times*, June 28, 2011.

4 Prospects of Property markets

Chart 5 illustrates the duration of a downturn of real housing prices from peak to bottoming out. On average, house prices after a downturn bottom out after 6 years. The decline in real house prices from peak to trough averages 35%.

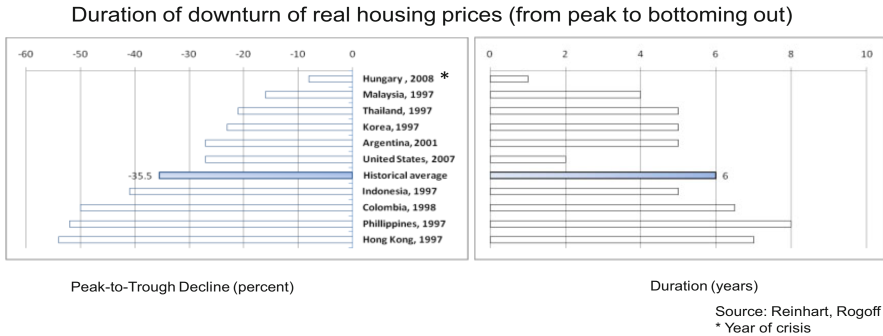

Chart 5: Duration of downturn of real housing prices

According to Chart 5, the most severe real housing declines were experienced in Colombia, the Philippines, and Hong Kong. Their crashes amounted to about 50% to 60% (from peak to trough). The housing price decline experienced by the United States in the aftermath of the financial and economic crisis of 2008/09 is at least two times stronger than the bust during the Great Depression in the 1930s.[24]

The long duration (on average 6 years) underlines the considerable impact of a housing crisis on economic development. After five years, an estimated increase of price rent ratios by 4% in 2011 and 2012 each indicate improved conditions in the property market as rising rents make home ownership more attractive.[25] A recovery of the housing market is looming.

The biggest stimulus for property markets is expected to come from emerging markets and is the result of rising investments in infrastructure (e.g. roads, transport systems, hospitals, etc.) and residential housing. Cities are expanding, not only in China but across most emerging markets, rural populations are migrating rapidly to expanding cities, increasing the demand for new homes, public infrastructure, factories, transportations, offices and shopping centers. By 2030, it is estimated that there will be more than 8 billion people on the earth, and three out of five will live in cities. At present, about 5 million people, through birth or migration, take up residency in urban areas every month.[26]

[24] Reinhart, C. M., & Rogoff, K. S. (2009). *This Time is Different – Eight Centuries of Financial Folly*. Princeton University Press: Princeton and Oxford, p. 226.

[25] The housing market: The darkest hour. *The Economist,* May 21, 2011 p. 32.

[26] Hurley, A. K. (2011). *(Re)conceiving cities.* One. John Hopkins Carey Business School, Volume III, No. 2, Spring/Summer 2011, 13-19, p. 13.

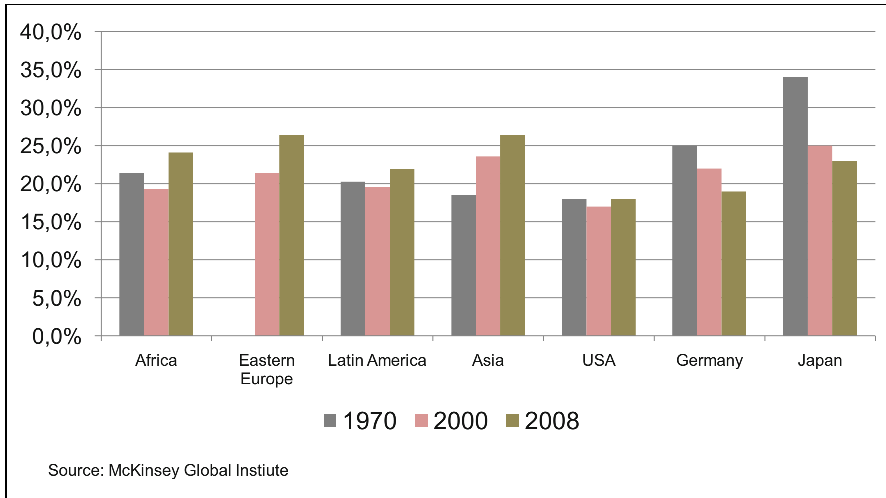

Chart 6: Investment to GDP in emerging markets versus in advanced economies

Additionally, the population in emerging market is relatively younger than in advanced economies, further propelling the demand for housing. For example, more than 60% of the roughly 300 million strong population of the Arab world is under the age of 25. One of their biggest concerns is the access to affordable housing.[27]

Chart 6 confirms the trend. Whereas investments in advanced economies have declined from 1970 to 2008, they have increased in emerging markets during the same period. For example, Africa has boosted its investment rate to 24.1% of GDP in 2008 from 19.3% in 2000. Eastern Europe's rate rose to 26.4% from 21.4% over the same period. [28]

Chart 7 provides an estimate of the potential volume to be invested into residential housing. According to estimates of the McKinsey Global Institute, global housing demand is projected to almost double over the next two decades from 2.1 trillion USD to about 4.0 trillion USD. Although this estimate also includes advanced economies, the major portion is absorbed by emerging markets.

[27] Drummond, J. Youths fear housing shortage. *Financial Times* April 1, 2011.

[28] Dobbs, R., Lund, S., et al. (2010). *Farewell to cheap capital? The implications of long-term shifts in global investments and savings*. McKinsey Global Institute: Seoul, San Francisco, London, Washington, p. 33.

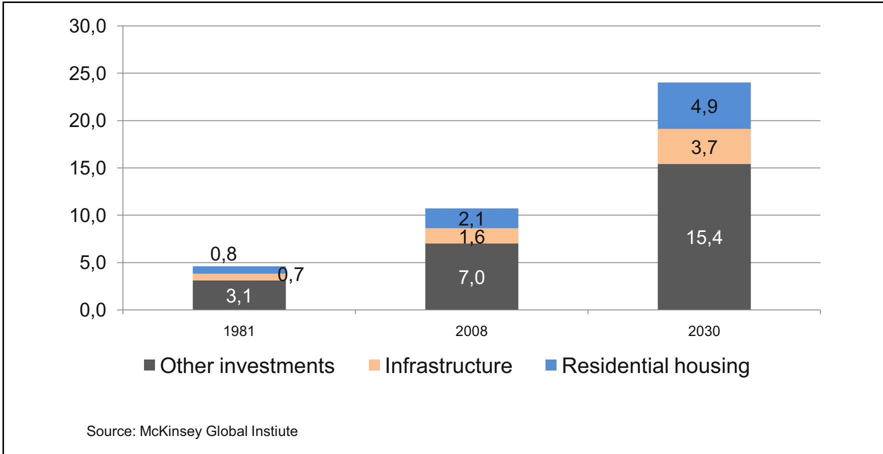

Chart 7: Estimated breakdown of investments globally in billion USD

Most developing countries currently invest less in residential real estate as a share of GDP than mature economies, reflecting their lower household income levels. India and Brazil for example, currently invest only 1.6% of GDP in residential estate (for comparison: for advanced economies, this number amounted on average to 4.6% in 2008). This ratio is likely to change, however, as incomes rise. In addition, increasing urbanization and a growing population require governments to act to avoid social unrest and political instability. The prospects for property markets are therefore benign, but major activities will shift from advanced economies to emerging markets.

Rising demand for investments is likely to push interest rates upwards and savings rates in emerging markets are expected to decline. Higher interest rates are likely to improve the economics of commercial and retail banking. Although credit volumes will likely grow more slowly as higher interest rates dampen loan demand and as a result of Basel III regulations,[29] net interest rate margins may increase as the cost of retail funding typically rises less than lending rates. Lenders may also rethink their business models in retail banking because in emerging markets households typically have lower incomes than in advanced economies.

5 Conclusion

Properties are the Achilles heel of the financial system. Housing bubbles often precede a banking crisis. Due to the structure of investments in property, they tend to reinforce cyclical effects. There is no difference between emerging markets and

[29] For detailed information about the changes in the Basel III framework in relation to the Basel II, see on the Bank for International Settlement's website (www.bis.org). A number of papers are ready for download.

advanced economies in the rise of property bubbles and the bust of the bubble. The duration of recovery of property markets is longer and more painful than a crash in the equity markets.

To ensure sound growth of housing finance markets, policy makers need to promote sounder primary mortgage markets: these should include LTV limits which are adjustable to the real estate market cycle, limitations on loan products which are capable of deteriorating affordability in case of macroeconomic shocks. For example, the granting of mortgage loans denominated in foreign currency should be linked to stress tests of the applicant's income to ensure that her/his income withstands an increase of the redemption rate due to fluctuations in exchange rates. Another important area is the development of house price indices and databases on property transactions to spot house price inflation. Coupled with these is the development of strong consumer protection frameworks which help consumers to understand better the risks they are exposed when they take out a mortgage loan.

A further challenge is the revival of capital market instruments to fund housing. The markets still suffer as investors have lost confidence in mortgage securities. Issuers face difficulties in issuing mortgage related debt.[30]

Due to rising demand for capital to finance the expected investment boom in emerging markets, the importance of globally integrated capital markets is also likely to rise, as domestic capital markets are unlikely to generate the necessary financing volumes. This demand provides opportunities for the development of new financing instruments, albeit more prudently structured due to their different capital requirement and a higher risk aversion of investors. On-balance funding instruments like covered mortgage bonds may become more attractive.[31] Thus, a number of opportunities will arise in emerging markets regarding the construction and financing of property.

Will house price bubbles still occur? Carmen Reinhart and Kenneth Rogoff point out that policy makers, bankers and borrowers are caught by the delusion of the "this time is different"-syndrome as early warning signs are overlooked when markets are growing. To draw an analogy, it is like "The Never-ending Story": "This is a different story which will be told another time".

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[30] Hughes, J., & Van Duyn, A. Subprime hangs over securitized debt revival. *Financial Times*, June 10, 2011.

[31] A covered mortgage bond is a debt instrument which is secured against a dynamic pool of specifically identified, eligible mortgages. The fundamental concept of this security is the reliance on the collateral (mortgage) as the primary source of credit quality, which significantly reduces the risk to the bondholder. Mortgage bonds are issued by a bank and usually remain on its balance sheet. The credit quality of the bonds is assured through conservative underwriting standards and strict regulation of loans and lending institutions as well as strict valuation rules.

References

Clemens U., Dyck S., & Just, T. (2011). China's housing markets: Regulatory interventions mitigate risk of severe bust. Deutsche Bank Research: Frankfurt.

Dobbs, R., Lund, S. et al. (2010). Farewell to cheap capital? The implications of long-term shifts in global investments and savings. McKinsey Global Institute: Seoul, San Francisco, London, Washington.

Drummond, J. Youths fear housing shortage. Financial Times, April 1, 2011.

EMF Hypostat 2005 (2006), A review of Europe's Mortgage and Housing Markets, European Mortgage Federation: Brussels.

Ende, M., & Manheim, R. (1979). The Never-ending Story. K. Thienemanns Verlag: Stuttgart.

Hegedus, J ., & Somogyi, E. (2005). An Evaluation of the Hungarian Mortgage Program 2000–2004. In Struyk, R., & Hegedus, J. (Ed.), Housing Finance – New and Old Models in Central Europe, Russia and Kazakhstan. Open Society Institute: Budapest.

Hughes, J., & Van Duyn, A. Subprime hangs over securitized debt revival. Financial Times, June 10, 2011.

Hurley, A. K. (2011). (Re)conceiving cities. One. John Hopkins Carey Business School, Volume III, No. 2, Spring/Summer 2011, 13-19.

Miles, J. Special Report on China: Rising power, anxious State. The Economist, June 25, 2011.

Plender, J. Overarching Problems. Financial Times, January 27, 2011.

Rabinovitch, S. Emphasis on explicit debt hides extent of Beijing's local liabilities. Financial Times, June 28, 2011.

Rajan, R. G. (2010). Fault Lines – How hidden fractures still threaten the world economy. Princeton University Press: Princeton and Oxford.

Reinhart, C. M. & Rogoff, K. S (2009). This Time is Different – Eight Centuries of Financial Folly. Princeton University Press: Princeton and Oxford.

Renaud, B. (2011). Housing Bubbles in China: How do we analyze them? Washington DC: Presentation given at SAIS course.

Renaud, B. (2009). A Systemic View of Housing in China's New Urban Area. Seoul: Presentation at KDI School.

Rosenberg, M. (2010). China's population. http://geography.about.com/od/populationgeography/a/chinapopulation.htm.

Roxburgh, C., Lund, S. et al. (2009). Global capital markets: Entering a new era. McKinsey Global Institute: Washington, Seoul, San Francisco, London.

The Economist (2011), Bricks and Slaughter – A special report on property.

The Economist, May 27, 2011. Home Truths: China's property market.

The Economist, March 5, 2011. The housing market: The darkest hour.