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Editor's Introduction

↳ By Friedemann Roy

It is my pleasure to present you the Summer 2010 edition. It is the last edition in which I assume the function of the editor. I would like to take the opportunity to thank you for your interest in the journal. I also would like to thank all contributors for the articles, as well as the experiences and insights they shared with us in their work.

The last years have been a fantastic journey through the economic cycles of the housing finance markets. Our contributors helped us to better understand the booms and busts of these cycles and their repercussions on individual housing finance systems as well as national and regional markets. We also learnt about new innovations in housing finance and how they aim to address affordability constraints in housing and housing finance.

I would like to introduce to you the new editor, who already helped to prepare this edition. He will resume full responsibilities for the future editions: Andrew Heywood is a consultant specialising in housing and mortgage markets, regulation, governance and European issues with significant clients in the housing and mortgage sectors. In his former role as Deputy Head of Policy at the Council of Mortgage Lenders (CML), Andrew had specific responsibility for lending for social and affordable housing, for low-cost home ownership products as well as for the private rental sector. In his free time, he is a keen jazz saxophonist and leads his own quintet Afinado. I would like to wish Andrew all the best for his new position and I hope he will enjoy the work as I did.

Our first article is presented by Bertrand Renaud and deals with Dubai's Real Estate Boom and Bust during the years 2002 – 2008. During this period, Dubai experienced a massive real estate boom and bust. As a rapidly growing open economy located in a strategic region of the world, Dubai emerged as one of the most visible global cities and found ready access to finance during the global credit boom. Real estate projects exceptional in nature and scale shaped the image of the emirate around the world. However, this growth was not a mere desert mirage. He discusses the factors behind this remarkable transformation of a sleepy fishing village into a global city in a time span of about five decades and how the global credit boom contributed to Dubai's massive real estate boom. In addition, he discusses how Dubai is now adjusting to the real estate bust triggered by the global financial and economic crisis. He believes that Dubai and the other emirates of the UAE are today at an inflexion point in their growth strategy. Therefore, he analyses the responses to the crisis triggered by the Dubai World debt standstill announcement of November 2009 and the actions being taken to strengthen the Dubai economy and the financial system of the entire UAE federation in a far more risky and uncertain global environment.

In our second article, Claudia Magalhaes Eloy takes a perceptive look at Brazil's housing finance system. She points to the rapid growth in the provision of mortgage finance since the 1980's but also draws attention to the fact that as a percentage of GDP, mortgage credit is still only half the 10% average for developing countries. Ms Eloy highlights changes to the housing finance system and identifies key challenges and limits on the speed of future growth, including the limited role so far played by securitisation in mortgage funding. She also examines the impact of the banking crisis and recently emerging trends in housing finance.

The positive and negative links between the capacity of developers to increase new housing supply and the growth in mortgage credit is not always made explicitly. Timothy Olugbenga Nubi, who is the author of our third article, focuses on Nigeria in making these connections. As in Brazil, the development of mortgage credit is an ongoing issue and mortgage credit as a percentage of GDP stands at just 1%. Mr Nubi identifies the problem of new housing supply capacity as a key factor in the emergence of the Nigerian mortgage market and as a problem in itself. He uses the results of his own survey of housing developers to highlight the lack of capacity of the industry and the preponderance of small firms (judged by the standards of the developed world). Mr Nubi points to the key factors underpinning this situation and in particular to the problems faced by developers in gaining access to adequate levels of finance, and discusses the reasons behind what appears to be a major limiting factor on development.

The Northern Ireland housing market is the focus of our fourth article. It is in many ways unique, influenced as it is by both the UK and Irish markets. It is the only region of the UK with a land border on the Euro zone. Joe Frey and Paddy Gray use their deep knowledge of Northern Ireland and its housing market to provide a detailed analysis of the key drivers and trends, drawing on recent research by the Northern Ireland Housing Executive, the strategic housing authority in Northern Ireland and the main social landlord. Frey and Gray analyse the spectacular boom and bust in the Northern Ireland market since 2000, touch on future prospects and contrast this experience with that in the Republic of Ireland and with the rest of the UK.

In our fifth article Richard Ronald examines housing policy in East Asia. He identifies the East Asian economic crisis of 1997 - 1998 as a turning point in Government economic and housing policy in the way it undermined the reliance of policy makers on raising home ownership to further growth and to promote social stability. Drawing on the experience of Hong Kong, Singapore, Japan, South Korea, China and Taiwan, Mr Ronald analyses the often contradictory pressures on Governments in relation to a range of policy imperatives including the extension of home ownership, affordability, pension provision and housing key workers. His article also assesses the recent impact of the banking crisis and economic downturn of 2008 - 2009 on housing policy in the region.

Our last contributor in this edition is Rob Thomas. Mortgage funding in the UK is the focus in the first of two articles by Mr. Thomas, looking at the impact of the financial crisis on funding markets. He examines the rise in wholesale funding in the UK since the 1980's and identifies the very rapid rise in the volume of securitization in the period 2000 - 2007. He assesses the structural vulnerabilities of the UK in relation to wholesale funding, including the lack of an adequate UK- based pool of investors. After looking at the key elements and effects of the government response to the banking crisis, Mr Thomas examines the consequences of the crisis for the mortgage market in the UK, which has been unable to restore retail lending volumes. He then goes on to assess the outlook for 2010 - 2015 and the prospects for a return to normality.

I hope you will enjoy reading these articles. Please do not hesitate to come up with your comments to stimulate a wider debate which will allow for a broader exchange of ideas and concepts. They are more than welcome!

Friedemann Roy[1]

[1] The Findings, interpretations, statements and conclusions expressed herein are those of the editor alone and do not necessarily reflect the views of the International Bank for Reconstruction and Development/The World Bank and its affiliated organisations, or those of the Executive Directors of The World Bank. The same applies for the authors and their findings, interpretations, statements and conclusions presented in this HFI edition.

Contributors' Biographies

Dr Bertrand Renaud is an international consultant and President of Renaud and Associates. He specialises in financial development, real estate finance and urban development issues. He has been Advisor for the Financial Sector Development Department at the World Bank, Head of the Urban Affairs Division at OECD (Paris), full time professor at the University of Hawaii and professor at MIT, Seoul National University and the University of Hong Kong. Dr. Renaud holds M.S. and Ph.D degrees from the University of California at Berkeley and received the degree of Ingénieur INA in Paris, France.

Claudia Magalhães Eloy is currently a PhD student in Urban Planning/Housing at the University of São Paulo (USP), developing research on the National Housing Finance System. She holds a Masters in City Planning at the University of Pennsylvania, a Masters in Public Administration at Bahia's Federal University (UFBA), a specialisation in Real Estate Finance at the Brazilian Economists Order (OEB) and a BA in Architecture and Urban Planning (UFBA).

Dr Timothy Gbenga Nubi Heads the Department of Estate Management at the University of Lagos, Nigeria. He has over 20 years experience in research and teaching. He is the Vice President of the Real Estate Developers Association of Nigeria, an organisation set up by the Federal Government to solve housing problems in Nigeria.

Joe Frey's qualifications include an MSc in Town and Country Planning, the IoH Professional Qualification and more recently an MSc in Urban Policy and Practice from Glasgow University. He is currently Head of Research in the Northern Ireland Housing Executive, the strategic housing authority, and is a part-time lecturer in housing finance and planning at the University of Ulster.

Paddy Gray has worked in housing in various posts for 30 years. He has wide experience of academic and applied research in the UK and Republic of Ireland through research grants, consultancy and applied research contracts for governments, private and voluntary organisations. Paddy was appointed Professor of Housing at University of Ulster in 2009 and is President of the Chartered Institute of Housing.

Richard Ronald is Associate Professor in Urban Studies in the Department of Geography, Planning & International Development Studies, University of Amsterdam, and a visiting scholar at the Department of Housing & Interior Design, Kyung Hee University, South Korea. He is review editor of the International Journal of Housing Policy and also author of the 'The Ideology of Home Ownership' (Palgrave Macmillan, 2008) as well as numerous other articles on housing, urban and social change in Europe and East Asia.

Rob Thomas gained undergraduate and masters' degrees in economics before joining the Bank of England as an economist in 1989. He moved to UBS in 1994. In 2001 Abbey National recruited him to manage a pan-European mortgage funding project. In 2005 he joined the Council of Mortgage Lenders as a Senior Policy Adviser.

Dubai's Real Estate Boom and Bust of 2002 – 2008:
Dynamics and Policy Responses

By Bertrand Renaud, Ph.D.

1. Introduction: Dubai within the UAE

The federation of the United Arab Emirates was created in 1971 by the union of seven formally independent sheikhdoms located along the Persian Gulf in the desolate south-eastern Rub Al-Khali (Empty Quarter) of the Arabic Peninsula. These small states were keen to safeguard their autonomy in the midst of much larger neighbours. There are considerable differences across the seven emirates in terms of land area, demographic dynamics, natural resources, economic structure and per capita income. Dubai is the second largest emirate in terms of land area and GDP after Abu Dhabi, but its estimated population is slightly larger than Abu Dhabi's (Table 1). During its first four decades of existence, the UAE has operated as a very decentralised federation where each emirate has been operating as a "city state" with considerable autonomy under its own ruling family without any parliamentary system. Figure 1 shows how Abu Dhabi is by far the largest emirate.

Long-term political stability has been a key reason why the UAE, and Dubai in particular, have generally outperformed the rest of the Middle East and undergone a remarkably fast and thorough modernisation in a few decades. Unusual for most countries, the Maktoum family has ruled Dubai continuously for over 175 years, since 1833. Presently, Sheikh Mohammed bin Rashid is the eleventh Maktoum ruler. The transformation of Dubai from a sleepy fishing village into a modern global city was not a foregone conclusion. Credit for this remarkable transformation is given to the vision, political acumen, decisiveness and willingness to take risk of Sheikh Rashid bin Saeed who assumed power in 1958, the year when oil was first discovered in the UAE but in Abu Dhabi. (See Jim Krane, 2009). The emirate has rapidly built a top quality infrastructure. Its economic growth rate between 2003 and 2007 was 15% per year. By now Dubai has become the fourth largest trade and logistics centre in the world and is a major regional hub as well as a major tourist destination.

2. Six Drivers of Dubai's Real Estate Boom

Major real estate booms and busts are rarely based on a single factor. In Dubai the massive real estate boom of 2002-2008 has resulted from the combination of six internal and external factors.

Openness, Entrepreneurial Risk-tasking and Rapid Infrastructure Development

During the global credit boom, the present ruler Sheikh Mohamed bin Rashid al Maktoum has pursued in his own style the internationally-oriented, risk-taking managerial tradition of his father. Sheikh Mohamed articulated his long-term plans for the emirate as early as 2000 when he was already the de facto leader of the emirate and published them in 2006 when he officially became its ruler (Al Maktoum, 2006). A central economic goal has been to limit the dependence of Dubai on oil and to diversify its economy away from hydrocarbons. In 2000, when Dubai's economy was much smaller, the non-oil sector represented 46% of Dubai's GDP. Thanks to a very high economic average growth rate of 12.2% per year in real terms between 2002 and 2008, the non-oil sector had grown to better than 95% of Dubai's GDP by 2008.

The growth strategy of Dubai has focused on six sectors; trade, transportation and storage logistics, professional services, tourism, construction and financial services. (Dubai Strategic Plan, 2015). As a rapidly growing open economy marked by openness to foreign cultures, low taxes, an efficient government, and located in a strategic region of the world mid-way between

Table 1: The Seven UAE Emirates around 2007

	Land area (km^2)	Population (thousands, 2008 est.)	GDP 2007, millions UAE Dirhams	Per Capita GDP UAE Dirhams	Per Capita GDP US Dollars
Abu Dhabi	67,340	1,559	400,047	267,948	$72,817
Dubai	4,115	1,593	226,513	153,256	$41,649
Sharjah	2,590	946	68,463	77,622	$21,095
Ajman	260	237	9,525	42,522	$11,556
Ras al Khaimah	1,700	231	13,555	61,059	$16,593
Fujairah	1,150	145	8,476	61,869	$16,814
Umm al Qawain	750	53	3,153	60,635	$16,478
UAE	77,905	4,764	729,732	162,596	$44,187

Source: UAE: Statistical Appendix, IMF Report 09/120, April 2009; and others sources.

Singapore and London, Dubai has emerged as one of the most visible global cities. Singapore and Hong Kong as trading and services centres have been influential models for Dubai to emulate in its own part of the world. However, the massive real estate boom and bust that Dubai experienced during the period 2002-2008 has raised the question whether Dubai has drifted too far away from its core growth strategy and how difficult the restructuring and recovery of the real estate sector might be given the changed global environment.

Global Credit Boom

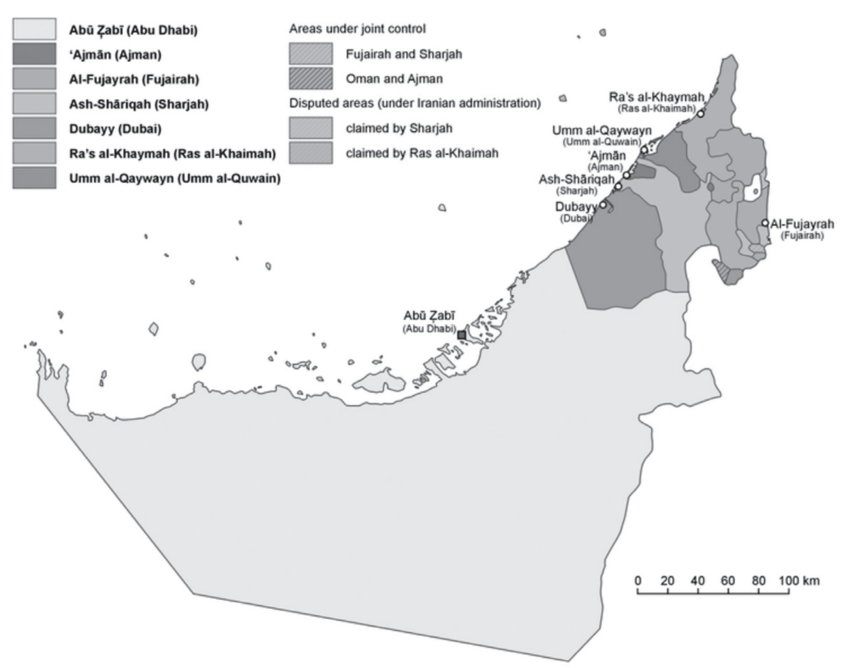
A central feature of the massive growth of global credit has been the self-propelling nature of global liquidity due to the feedback mechanism between rising assets prices and liquidity. As strong asset prices strengthen the balance-sheets of financial institutions they become more willing to lend. As a result, the risk premium embedded in interest rates became very low and liquidity became plentiful worldwide, an opportunity which allowed Dubai to pursue a highly leveraged growth strategy.

Global liquidity and the search for yields, fuelled five different asset and commodity bubbles: the information and communication technology bubble that burst in 2000-2001; the transformation of the U.S. housing boom into a bubble when the U.S. Federal Reserve lowered the Fed Funds Rate to limit the impact of the ICT crash as the U.S. economy went through a recession; the financial engineering bubble built upon a variety of financial innovations and derivatives of debt instruments that fed the real estate boom; commodity bubbles in the prices of food, metals and energy; and the stock market bubble that burst in October 2007. (Caballero, Fahri, Gourinchas Dec. 2008; Sornette and Woodard, 2009)

The combination of low interest rates and the global credit boom gave rise to housing booms across OECD countries that have been synchronised (Kim and Renaud, 2009). The UAE, thanks to Dubai, have been on the list of the top five residential and commercial construction booms and busts during the noughties' decade, together with Ireland, Latvia, Lithuania and Spain.

In Dubai, the share of the total construction sector in GDP, including both property and other construction activities such as infrastructure, was twice the level for the rest of the UAE. "According to Dubai Statistics Center construction and real estate accounted for 23.3% of Dubai's GDP in 2008 (construction: 8.1%; real estate: 15.2% and 41.1% of employment). Construction alone represented 21.1% of the total wage bill in 2006" (Ketels, 2009, p.18).

Figure 1 The United Arab Emirates Federation



Source: IMF, 2010, Annex 1, page 38.

Real estate projects exceptional in nature and scale shaped the image of the emirate around the world as the decade progressed. The spatial structure of Dubai has been divided into zones dedicated to various types of services, financial, industrial and tourism activities. Specific legal and regulatory rules are applicable within these economic zones.

Opening of Dubai's Real Estate Market to Foreign Ownership in May 2002

The single most important structural change behind Dubai's massive real estate market boom has been the May 2002 announcement by Sheikh Mohammed that freehold ownership of residential and other types of property in Dubai was available to investors of all nationalities in specially designated zones. The related property rights and registration rules were elaborated further in Law No. 7 of 2006. Importantly, ownership and occupation of a Dubai property automatically gives residency status, however only on a rolling three-year basis rather than for life.

The instant effect of this fundamental market opening was a strong shift in demand from a variety of investors with different motivations: long-term residents who had been renting, new residents coming to work in Dubai, and overseas investors seeking attractive investments. This was particularly the case for investors from the Middle East seeking a safe home for their assets and good investments, given the reputation of Dubai as a politically stable economy with a clean and efficient government as well as low taxes. Figure 2 (see next page) shows the top 15 countries of origin of buyers of Dubai real estate during the boom. To an unknown extent, Dubai real estate also became an attractive investment for investors using real estate assets to recycle grey or illegal funds as the unexpected presence of some countries among the top 15 suggests.

The rapid surge in demand was met by a massive increase in housing supply from fairly new and predominantly government-related real estate companies that enjoyed both access to new serviced land thanks to the massive infrastructure program and to finance from UAE and global lenders thanks to the credit boom. The largest real estate government-related enterprises (GRE) were: *Nakheel* that gained international fame with its palm islands and World Islands projects, *Dubai Properties*, and *Emaar* that operates internationally and gained fame by building the highest tower in the world: the Burj Khalifa of 828m. There are other large developers linked to local business groups also partly invested by the Dubai government, UAE investors and international investors from the Middle East.

In a study of growth clusters in Dubai commissioned by the Dubai Economic Council, Ketels

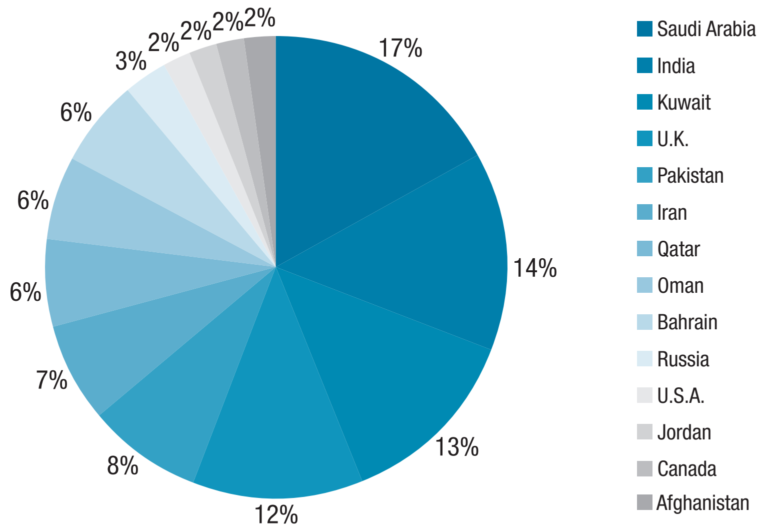
(2009) also provides a list of Dubai developers with their estimated values at the peak of the bubble, which is reproduced in Table 2. These large developers engaged in fierce competition for highly visible "iconic" projects and grew at very high annual rates.[1] Unfortunately, reliable, comprehensive and timely information on the corporate structure of these companies as well as systemic information about the real estate industry lagged far behind its very rapid growth. Construction trade specialists estimated that by 2007 "somewhere between 15% and 25% of the 125,000 construction cranes currently operating in the world today were located in Dubai". (Roach 2007). These cranes served about 6 million UAE inhabitants i.e. less than 1/1000th of the world population.

Property values rose very rapidly in Dubai between 2002 and 2008. By mid-2008 a significant correction in residential and commercial real estate prices was anticipated even before the Lehman Brothers collapse of September 2008 because the real estate boom had morphed into a speculative frenzy and new supply was clearly overshooting expected demand by a wide margin.

A significant element of the Dubai boom that had turned into it a bubble by 2006 was the large presence of short-term speculative investors. "Presales" or "sales on plans" also called "off-plan" contracts have been used extensively in Dubai. In such sale contracts, after he has obtained a building permit, a developer can "pre-sell" the property yet to be built to a buyer who will then pay the developer according to a promised construction schedule. For a buyer, the purchase can be a highly leveraged contract as the first deposit can go as low as 1% or 5% of the property. In Dubai, initial payments were usually 10%. At the end of the boom, major developers began requiring that off-plan buyers own 30% of their property before reselling them. Pre-sales were a major component of a developer's business strategy. For instance the world-famous Burj Khalifa, now the tallest building in the world, is reputed to have been entirely presold by Emaar in just two weeks prior to the start of construction in 2005.

Across Asia and in Dubai as well, off-plan contracts can become a liquid investment vehicle that can be repeatedly traded during the construction of the underlying units as real estate prices go up. The widespread use of these contracts tends to encourage both a housing price boom through "property flipping" and an oversupply of new units above what long-term

Figure 2 **Buyers of Dubai Real Estate**
Top 15 Countries in Transactions Value, 2002-2008



Source: Christian Ketels, *Clusters and Dubai's Competitiveness*, Dubai Economic Council, June 2009, p. 24)

market fundamentals would support, in comparison with Western housing markets where presale contracts are not traded. (For more on the impact of presales on developers, buyers as well as the overall market structure and dynamics, see Renaud 2009). In parallel, a significant amount of lending goes to construction companies and vendors to property developers as part of the leverage in the sector.

An important dimension of the massive real estate boom in Dubai that is rather typical of other real estate bubbles has been the wide range of project quality across the emirate. During the bust, coping with the oversupply will require a painful triage across properties of very different quality in terms of location, design, and neighbourhood attractiveness as can also be observed in markets like Las Vegas and Florida in the US or in other bubbles like Bangkok after 1997 (Mera and Renaud, 2000). The same process affects commercial properties where only the best A-grade properties will still sell in the short-term, but with some price haircuts; see Part III below.

Table 2: Major Dubai Real Estate Developers in 2008 - Estimated Value in billion USD

Nakheel	110
Dubai Properties	95
Emaar Properties	77
Limitless	73
Tatweer	65
Sorouh Real Estate	40
Tourism Development & Invst Co.	40
Tamouh	40
Tameer Holding	32
Masdar	26
Sama Dubai	25
Damak	20

Source: C. Ketels, *Clusters Study*, DEC,2009, p.14

It is important to keep in mind that the opening of the real estate sector to foreign investors has created a dual housing market structure in Dubai where the supply side is strictly segregated between Emiratis who represent only about 20% of the total population and non-national residents. The UAE constitution vests legislation in the area of real estate to the federal government. However, restricting ownership of local real estate to UAE nationals is not regulated by an explicit federal law; it has only been a long established practice which is vested in the individual emirates. (See Boleat, 2004, p. 19). As a result, the main features of housing

[1] For an informative, if unofficial, inventory of the massive variety and size of real estate developments in Dubai, see the Wikipedia article on "Developments in Dubai" at http://en.wikipedia.org/wiki/Developments_in_Dubai

supply and housing finance for UAE nationals differ across the emirates whose wealth level differs markedly as shown in Table 1.

Because the Dubai emirate has been growing rapidly, it has been able to fund a very significant programme of essentially free housing for its nationals, inevitably creating a waiting list. (See Boleat 2004, Chap. 4). These generous housing programs plus health, education and social programs for Dubai's citizens have been part of the successful "ruling bargain" between the Dubai ruling family and its population. Smaller and poorer emirates of the UAE cannot offer the same level of material support to their citizens. To improve the stability of property markets, in early March 2010 the Dubai Government has issued a decree granting UAE nationals genuine freehold ownership of the land plots previously given to them under some restrictive government regulations.

Strong Rise of Oil Prices between 2002 and 2008

The overall economic development strategy of Dubai and its real estate boom were propelled forward by the rise of oil prices from around US $25 per barrel in 2002 to a record high of $147 per barrel on 11 July 2008. This peak was followed by the abrupt collapse of oil prices to $34 per barrel on 21 December 2008 as seen in Figure 2. Irrespective of whether this price rise is explainable by market fundamentals, the peak oil output theory or a commodity bubble, this third global oil price boom has stimulated the demand for Dubai real estate assets by its neighbours as suggested by Figure 1.

A major difference between this third oil price boom and the two previous ones of the 1970s as well as the brief oil surge of 1990 has been the move away by Gulf oil producers from the financial recycling of funds outside the GCC region through London and New York markets toward a massive push for internal structural development. In this move of momentous significance for the global economy, Dubai itself has played a leading catalytic role as the first post-oil economy of the region. This massive intra-regional investment push blurs to some degree the boundary between the real estate project excesses of a bubble and the asset building process of the boom associated with the transformation of the region. Local reinvestment of oil proceeds is one of the factors that are expected to soften the scale, depth and duration of Dubai's real estate bust.

A structural factor shaping the future of the entire UAE federation is that Abu Dhabi holds almost all the oil reserves of the UAE and is planning to raise its oil-production capacity from about 2.8 million barrels a day now to 3.5 million barrels by 2017 when world daily consumption is about 85 million barrels. Even if oil production costs are rising everywhere, Abu Dhabi will continue to enjoy some of the lowest production costs in the world at about $10 per barrel (Klaus, 2010). Abu Dhabi has three sovereign wealth funds (SWF). By far the most important is ADIA (Abu Dhabi Investment Authority) which has existed for several decades and is the largest SWF in the world by a significant margin.[2] ADIA does not disclose its assets which are estimated to be between $500 and $700 billions, (Setzer and Ziemba, 2007; Behrent 2008; Reuters 2010). The A.D. government simply says that ADIA is at least two times its GDP. A core element of the Dubai guarantee crisis is the negligent assumption by lenders that the Dubai Government and/or Abu Dhabi's own government would automatically come to the assistance of over-indebted Dubai government-related enterprises (see Part IV).

Effect of the Currency Peg

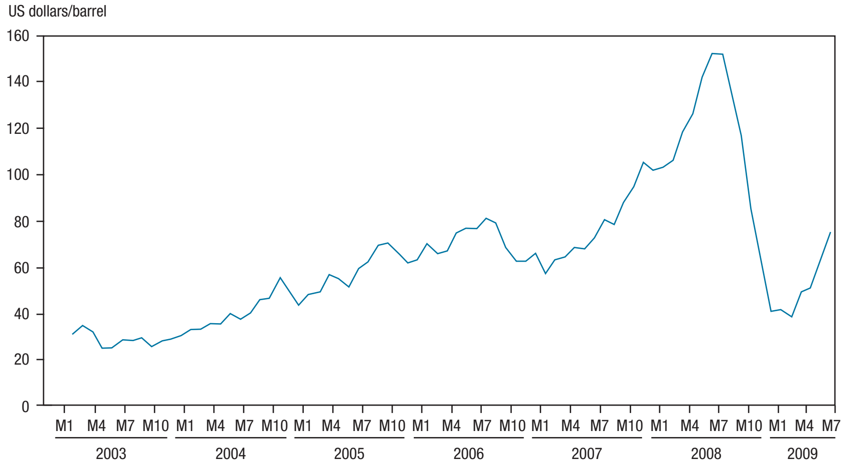
Since 1978, the UAE currency has been pegged to the US dollar, with a fixed value of AED 3.6725 per US dollar since November 1997. The effect of the peg has been the acceleration of domestic inflation, which rose above 12% for the UAE as a whole in 2008 and even higher in Dubai. This inflation was associated with imported inflation, the U.S. dollar depreciation and increasingly negative real interest rates since 2003 that encouraged the growth of credit and the search for yields in real estate and other investments. The real effective exchange rate was appreciating steadily since the end of the 2004 as the real estate boom progressed. This is a dynamics similar to the experience of Hong Kong with its own dollar peg during its own pre-1997 real estate boom.

In 2007, the UAE also endured massive speculative financial inflows relative to the size of GDP as foreign banks deposits with the UAE 24 national banks and 28 foreign bank units peaked at a high of AED 211 bn ($57.5 bn) at the end of April 2008, according to a May 2010 report of the UAE central bank. These short-term inflows were driven by the speculation that the UAE and other Gulf oil producers would appreciate their currencies against the dollar. These speculative funds added liquidity pressures on real estate and the rest of the economy. Then adding to the economy's post-bubble contraction, these foreign deposits have now fallen to AED 75bn by December 2009, their lowest level since mid-2006. This is a swing of AED 136bn ($37bn) (*Emirates Business* 24/7, 2010).

High Rate of In-migration and Short-Term Risk Taking

In-migration into a local housing market is usually a major driver in generating both a rise in

Figure 2 **Strong Rise of Oil Prices, 2002-2008**

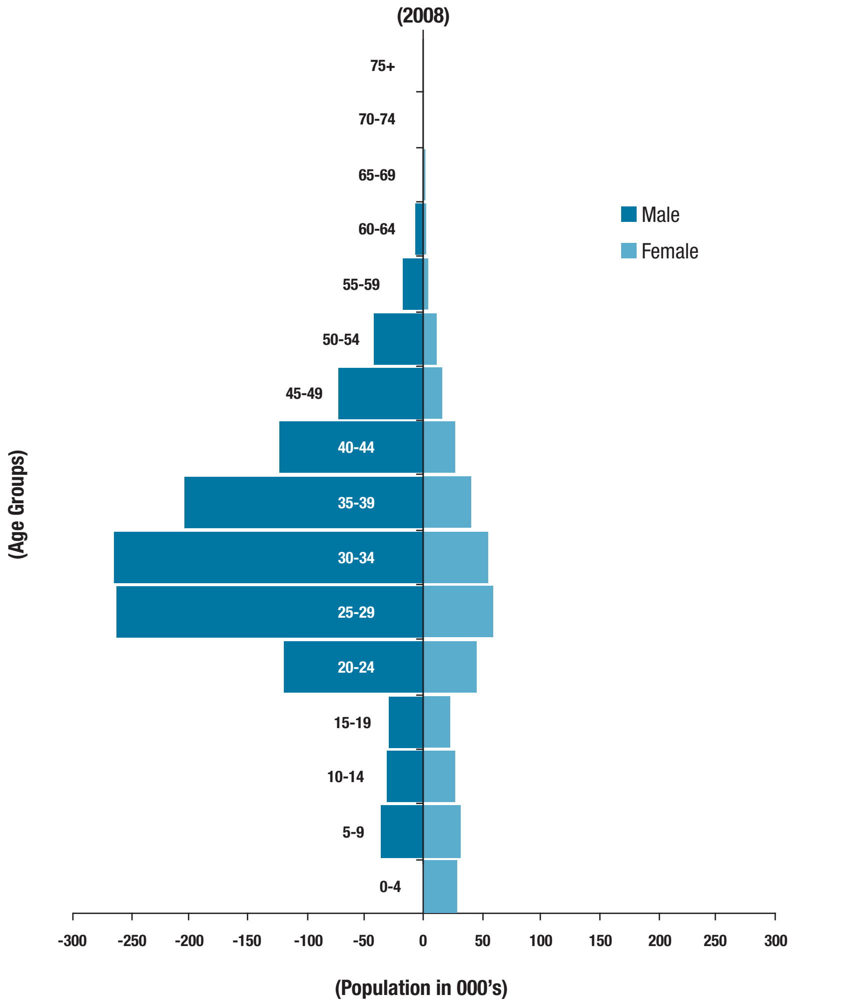


WTI = West Texas Intermediate
Source: US Departement of Energy

[2] According to the US-based Sovereign Wealth Fund Institute, http://www.swfinstitute.org/fund-rankings/

housing prices and a supply boom because such migration is already correlated with rising local incomes. The 2002 decision to allow expatriates to purchase housing units in Dubai, has fed a very high rate of in-migration into the emirate. Between 2000 and 2008, the UAE total population is reported to have grown at a compound annual growth rate (CAGR) of 6.3% but Dubai's population has grown even faster at an annual rate over 7%. The CIA World Factbook of 2009 ranks the UAE as the country with the highest rate of net in-migration in the world.[3] Some in-migrants were construction workers with little or no capacity to invest in local housing. There was also a very significant share of better educated, young professional migrants attracted by employment and living conditions in Dubai and interested in housing investment. By the end of 2008, government estimates show that over 80% of Dubai's entire population was composed of young male individuals between the ages of 20 and 45 (Figure 4). Did this skewed demographic structure increase the propensity of Dubai's population for risk taking and "speculative' behaviour?

Figure 4 Unusual Demographic Structure of Dubai, 2008



Initial colourful media reports that the burst of the bubble in 2008 - 2009 would trigger massive out-migration flows out of Dubai have been proven wrong. There does not appear to have been a major dynamics of out-migration feeding a downward housing price spiral in Dubai as has happened in Florida for the first time in decades in 2009 according to the US Census Bureau annual surveys. In fact, the population of Dubai is reported to have grown by 7.3% in 2009. The UAE census of April 2010 should throw light on the demographic structure and population movements across the UAE and contribute to strengthen the monitoring of real estate markets.

3. The Global Crisis Tests Dubai's Growth Model

The Contraction of the Global Economy has Hit Dubai Directly

For the five years prior to the 2008 crisis, the GCC countries of the Gulf region experienced a massive construction boom across all sectors of their economy. Projects in the planning stage or under construction are reputed to have crossed the US$ 1 trillion mark by 2008 (Global Investment House, 2009). By comparison the U.S. GDP was $14.2 billion and the global GDP was estimated by the World Bank at $60.6 trillion for 2008. About two thirds of these real estate and construction projects were in the UAE, and of those the lion's share was built in Dubai. The sharp fall of oil prices in mid-2008 put a temporary damper on this boom.

Dubai's overheated real estate sector was already heading for a correction even without the global crisis. Yet the double-digit growth in prices and rents continued through 2008-Q3. Then Dubai's housing property values went sharply into reverse. Dubai Land Department statistics show that residential prices dropped by more that 50 percent between September 2008 and September 2009. Underlying the weak market monitoring apparatus that lagged well behind the rapid growth of the sector, there are no official data on commercial real estate prices.

By 2008-Q4, all the drivers of Dubai's economy: trade, logistic services, tourism, retail services, real estate, and finance were directly affected by the worst global crisis in 70 years. Dubai still registered a GDP growth rate of 5.7 percent in 2008 to reach a GDP of Dh 257.8bn or $70.2bn, but this result was due to Dubai's prior high growth momentum: Dubai's economy contracted during the fourth quarter of 2008 and the first half of 2009. The real GDP of the entire UAE federation contracted by - 0.5% in 2009 after growing at close to 10% in prior years. An early and successful restructuring of the debt of Dubai's network of government-related enterprises, highlighted by the Dubai World debt standstill, is expected to play a central role in the long-term recovery of Dubai's economy.

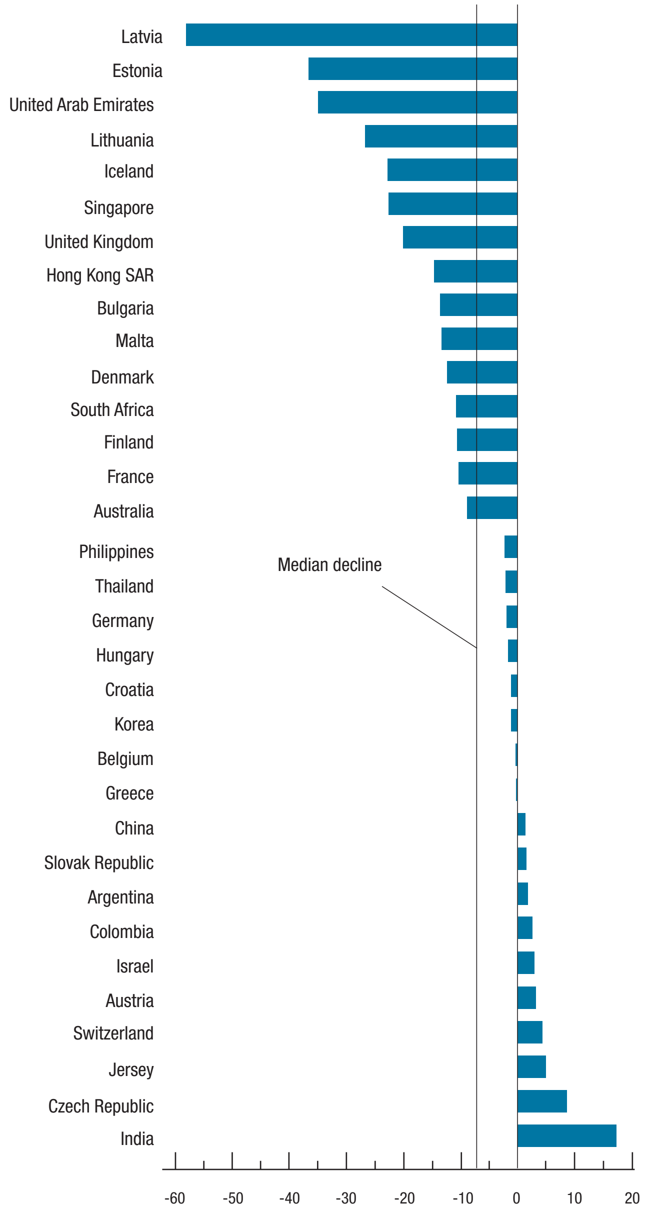
The global economy appeared to have stabilised and reached a bottom by 2009-Q3. It became easier to look back to understand what has happened, but we do not need to review the

[3] See https://www.cia.gov/library/publications/the-world-factbook/rankorder/2112rank.html

dynamics of the crisis here. Thanks to the financial measures taken by the US Fed and the other leading central banks as well as the emergency fiscal measures taken by G-20 governments after October 2008 that added up to about $5 trillion, the global economy found a fragile bottom by the end of 2009-Q2. However, the possibility of more aftershocks and secondary surprises remains present: the IMF's semi-annual Global Financial Stability Report of April 2010 warns against a "new phase" of the crisis caused by mounting risks of sovereign defaults, as shown by the Greek crisis.

Data collected by the IMF across about 70 countries suggests that the UAE or rather Dubai was among the top three economies in terms of decline in property values (See Figure 5). Among the Asian economies that Dubai serves, India experienced positive housing price gains and has maintained high GDP growth rates. On the other hand, Singapore which is another open economy like Dubai also experienced a severe fall in private housing prices and also the country's worst GDP contraction in 2008 Q4 since its independence in August 1965.

Figure 5 **Declines in Housing Prices across 70 Countries in 2009-Q1 (percent, year-over-year, inflation adjusted)**



Source: Source: World Economic Outlook, Box 1.4, IMF, October 2009

Financial Measures to Strengthen the UAE Banking System and Dubai's Economy

Following the collapse of Lehman Brothers in September 2008, governments around the world stepped in to provide support to banks and other financial institutions. The measures taken have been of three kinds: (1) capital injections to strengthen the capital base of banks and, where needed, capital support for the take-over of problem banks by stronger ones; (2) explicit guarantees on liabilities to protect retail deposits and help banks maintain access to wholesale funding; and (3) purchases or guarantees of impaired assets to help reduce banks' exposure to large losses, (BIS, Paper 48 July 2009).

The UAE Central Bank's actions were timely and effective in forestalling a drying up of liquidity. The central bank began creating supporting facilities as early as March 2008. Credit had been rising extremely rapidly throughout the 2003-2008 boom due to negative real interest rates. By September 2008, UAE annual credit had risen by 51% year-on-year. The central bank took a series of measures including a blanket guarantee of deposits and interbank lending in October 2008 for three years and the creation of a $19.1 billion liquidity support fund in the form of government deposits in UAE banks. The central bank has also been pursuing a program of regulatory strengthening since 2008 up to now.

A significant dimension of the real estate bust was to affect domestic Islamic banks that had been relying on real estate as their primary business model and the underlying physical asset under their financing activities. In particular, Dubai Islamic Bank the largest Islamic lender in the UAE reported a sharp decline in net profit in 2008 and large bad loans. It is generally believed that owing to their legal structure and business model, domestic Islamic banks will get back into shape more slowly than conventional banks. However, the UAE central bank's blanket 3-year guarantee on all deposits insured that there would be no Islamic bank runs in the UAE, as happened in Turkey in 2001.

Overall, the UAE banking system is sound and resilient. It is well capitalised with a high bank

[4] Essential references are the 2009 Annual Report of the Bank of International Settlements in Basel, Switzerland that is issued every year at the end of June, and the pair of semi-annual reports on the World Economic Outlook and the Global Financial Stability Report from the IMF in Washington D.C. On specific financial issues a leading reference is the March 2009 Turner Review by the U.K. Financial Supervision Authority, including its large consultative annex: http://www.fsa.gov.uk/pages/Library/Communication/PR/2009/037.shtml.

regulatory ratio of capital to risk-weighted assets over 19% in 2009, but such ratios are backward looking and counterparty risks and contingent liabilities must be kept in mind. The UAE also has the highest level of public ownership among GCC countries at 52% of total assets (42.0% government, 0.5% Government related enterprises (GREs) and 11% ruling family). The balance of private banks is dominated by domestic UAE banks (46.5% versus 0.2% for foreign banks). The level of non-performing loans was less than 5% in 2009, but the central bank has recently tightened loan classifications and NPL ratios could rise depending also on local economic conditions.

The Institute of International Finance (IIF), which represents the 400 largest banks in the world, has estimated relative bank exposures to the Dubai World (DW) debt restructuring crisis that we discuss further below. Taking the DW debt at $23bn, $12bn of exposure is with international banks, $7bn is with Dubai- based banks, $3bn with Abu Dhabi banks, and $1bn with other GCC banks. (IIF, May 2010). IIF also reports that in 2009 the credit growth rate in Abu Dhabi was 8.9% in Abu Dhabi; but it was a negative -1.5% in Dubai.

In late 2009, the Dubai World debt standstill announcement that Dubai Government's guarantee did not apply to Dubai World and its real estate subsidiaries led to the rating downgrade of six Emirati banks by rating agencies. The contributing factor to these downgrades was that rating agencies are now applying their 'stand-alone' rating methodology to the Dubai World subsidiaries, which are borrowers of these banks. The UAE Central Bank immediately issued a notice that it stood "behind UAE banks and branches of foreign banks operating in the UAE." Depending on the degree of success of the Dubai World debt restructuring with its downstream effects on other restructuring activities, credit growth in 2010 for Abu Dhabi could rise to 13.0% in Abu Dubai and 4% in Dubai, but the IIF baseline scenario for 2010 in Dubai is only 1% (IIF, May 2010, p. 14).

In addition to the actions taken by the UAE central bank, individual emirate governments took fiscal actions. The Abu Dhabi government provided some its banks and corporations with deposits and direct loans from the budget. Both Abu Dhabi and Dubai also used large stimulus packages in 2009 in the form of accelerated infrastructure investments to stabilise their economies.

In Dubai's case, a major concern has been to prevent the real estate crisis from triggering also a banking crisis. Given the overall strength of the UAE banking system this has not happened. In addition, the Dubai Government took a series of major legal and institutional actions. In particular, a Supreme Fiscal Council (SFC) was created in 2009 to coordinate all financial public decisions and a short-term Dubai Financial Support Fund (DFSF) was created as the vehicle for mobilising funds and implementing these decisions. Central to the entire stabilisation and restructuring process is the Dubai World debt restructuring. How fair and predictable it is to all domestic and international stakeholders will have ripple effects throughout the economy.

4. Impact of the Dubai World Debt Standstill Announcement

The Dubai World's Debt Standstill: Milestones in a Long Restructuring Process

The Dubai World debt standstill announcement of 25 November 2009 was top news on the global financial markets because it involved the concatenation of issues endemic to the global credit bust: concerns about excessive levels of sovereign debt in too many economies; the ambiguity of guarantees on debt issued by government-related enterprises; the restructuring of maturity-mismatched debt liabilities of overleveraged companies exposed to real estate after a massive bubble; a lack of information disclosure and transparency; and, technical problems of inadequate bankruptcy laws. More specific to Dubai were the credibility and performance of Islamic finance debt instruments, the sukuks which are to Islamic finance what Asset Backed Securities (ABS) are to conventional finance, a market area where Dubai and the UAE aim to become leaders.

The way the Dubai Department of Finance made the Dubai World standstill announcement was high-handed and poorly managed. The statement was received with dismay because it followed months of positive comments by Dubai officials and came at the wrong time without any specific information. The announcement triggered an initially chaotic market response and an abrupt loss of credibility for Dubai at the very time when there were widespread concerns about the ability of the debt-laden emirate to recover from the global crisis, and Dubai real estate prices had not stabilised in 2009 Q4. The news had a disruptive effect on the global financial markets not only because of the large and opaque scale of the standstill itself, but because it revived concerns about the sovereign risk of other heavily indebted countries, in particular the so-called PIIGS countries of Europe: Portugal, Ireland, Italy, Greece and Spain as well as the overextended states of central Europe that are much smaller. Suddenly, "sovereign" did not mean "safe". However, after a few days there remained limited concern for regional or global contagion, in contrast with Greece's debt crisis that burst in early 2010.

What is *Dubai World*? Where does this conglomerate fit in the organisation of the Dubai economy? One must start with *Dubai, Inc.* which is the informal name used for the complex network of government-related enterprises (GRE) that dominates the Dubai economy. Dubai Inc. is a "web of commercial corporations, financial institutions and investment corporations owned directly by the Government of Dubai or by the ruling family operating under the umbrella of three major holding companies: *Dubai Holding* directly owned by the ruler of Dubai, Dubai World owned by the Dubai Government and the *Investment Corporation of Dubai* owned by the Government of Dubai. Each holding company includes several property developers and is involved in assorted property ventures in Dubai and around the world" (IMF, 2010, p.8). Many of these GREs include the name of Dubai, which adds to the confusion. A loose organisational chart of *Dubai Inc.* can be found in the 2009 IMF "Article IV Review" of the UAE. The same document includes a "partial listing" of Dubai World's own subsidiaries and participations that takes two pages (pp 46-47, IMF, February 2010). The corporations of all three holdings borrowed extensively during the period 2002-2008.

An estimate of the publicly-held debt of Dubai as of January 2010 showing separately the Dubai World debt initially included in the standstill announcement is presented in Table 4. This table does not give the maturity structure of Dubai's debt, which is predominantly three years or less, nor does is differentiate between syndicated loans from banks and bond issues. The data also excludes bilateral loans between individual GREs and specific banks as well as accounts payable to vendors of these GREs.[5]

Two facts stand out. First, at the end of the boom, Dubai was a highly leveraged economy with about $110bn of debt and a debt-to-GDP ratio of 133% (compared with Greece and

[5] "Publicly-held debt" excludes: (i) syndicated loan for which documentation is incomplete; (ii) bilateral loans from global and local banks; (iii) accounts payable/suppliers' credit; and (iv) derivatives, credit commitments, and other liabilities. (IMF, 2010, p.45).

Iceland at about 105%). Second, the debts of the government-related corporations of Dubai Inc. dominate with 78% of the total public debt of the emirate.

The unambiguously "sovereign" debt issued by the Government of Dubai (GD) of about $24bn represents less than 22% of the total "public debt" when the GREs of Dubai Inc. are included. The GD debt is smaller than the aggregate debt of the Dubai World (DW) conglomerate alone. The contentious debt standstill announcement of 25 November 2009 affected $14.35bn out of Dubai World's estimated total debt of $26bn. Within the DW holding, the two property companies that faced the most severe debt problems were Nakheel (developer of the highly ambitious Palm Islands and World Islands mega projects) and Limitless World (with its $61bn mega project to build a canal of 75km across the emirate). Adding to the stress, Nakheel had issued three sukuks totalling $5.25bn of which $4.01bn (including interest) were maturing on 14 December 2009.

On 14 December 2009, Sheikh Ahmad Bin Saeed Al Maktoum, Chairman of the Dubai Supreme Fiscal Committee announced that the Abu Dhabi Government was supporting the government of Dubai with a $10billion facility (in the form of bonds sold to the UAE Central Bank by the Dubai Supreme Fiscal Committee). Of these funds, $4.01bn would be used for the timely redemption of the Islamic bond issued by Nakheel the subsidiary of Dubai World. "The remaining funds will also provide for interest expenses and company working capital through April 30, 2010 – conditioned on the company negotiating a standstill as previously announced." And "the remainder of the funds provided will be used for the satisfaction of obligations to existing trade creditors and contractors. Discussion with affected contractors will begin in short order."

This decision had at least two important dimensions. It showed the closer coordination between the two largest UAE emirates in another important turn in the short history of the federation. After a major false start, the decision also showed Dubai's determination to manage the restructuring of Dubai World's debt in an orderly and predictable fashion, starting with the appointment of a chief restructuring officer of international stature for Dubai World in November 2009.

On 21 December 2009, a meeting of creditors met in Dubai to discuss Dubai World's debt restructuring. Dubai's broad access to global capital markets was evident as some 95 global, regional and local banks participated. A Coordinating Committee of seven international and UAE banks holding just under 60% of the debt owed to lenders was formed to negotiate the debt restructuring with Dubai.

Table 4: Dubai Publicly-Held Debt in Bonds or Syndicated Loans
(In millions of dollars or dollar equivalents, as of January 2010)

Debt holders		Total	Share of "Dubai Inc."
Total Dubai World (DW)		**$ 26,043**	
a. Dubai World standstilled debt	Sub-total	$ 14,350	17%
b. Other Dubai World subsidiaries	Sub-total	$ 11,693	14%
Total Dubai World (DH)	**Total**	**$ 14,794**	17%
Total Inv. Corp. of Dubai (ICD) (including ICD-owned banks)	**Total**	**$ 20,404**	
Total Other Dubai Inc.	**Total**	**$ 24,352.00**	28%
A. Total for "Dubai Inc."		**$ 85,593.00**	100%
B. Government of Dubai (GD) (Assuming direct and indirect Abu Dhabi support is 100% drawn)		$ 23,700	
C. Total "Dubai Inc." and GD DEBT		**$ 109,293.00**	

Memo item: Dubai 2008 GDP is AED301.6bn or S82.1bn. Total Dubai debt/GDP ratio: 133%
Source: IMF [2010], 2009 UAE Article IV Review, Annex Table 1, p.49

On 25 March 2010, the costly deleveraging process began in earnest when the Supreme Fiscal Committee of Dubai announced several major decisions. First, a proposal aiming to balance the interests of all parties had been drafted and was submitted to the Coordinating Committee of Dubai World's creditor banks. Second, in support of this proposal the Government offered to recapitalise DW through the conversion of $8.9bn of debt it held into equity and a commitment of $1.5bn in new funds. For property developer Nakheel, bank creditors would be offered a debt restructuring without default and trade creditors would be offered a significant, rapidly disbursed cash payment and a tradable security. The government support package was offering about $8bn in new funds plus a debt equity conversion of $1.2bn of government-held debt. A key policy goal is to help stabilise the real estate industry and its suppliers. Legally, this package of $9.5bn of government resources would come through the Dubai Financial Support Fund (DFSF) and be funded by $5.7bn remaining from the Abu Dhabi loan of 2009 and the balance is funded from internal DG resources available.

In April 2010, in the midst of the DW standstill negotiations, a debt management office has been created within the Dubai Department of Finance but reporting to the Supreme Fiscal Council with the mandate to prepare a medium financial plan for Dubai for 2011-2014. This office will centralise debt decision-making, and in particular coordinate the raising of debt by the GREs.[6] To support its work, a Public Debt Law is in the final drafting stage. No consolidated monitoring of GRE's and Dubai Government debts existed during the boom. This critical gap underlines the growing lag of Dubai's institutional development and market monitoring behind the rapid growth of the economy during the feverish boom years. It also reflects the legacy of earlier decades when financial transparency was often seen as a nuisance in Dubai, the UAE and across the GCC region. "The majority of Dubai Inc. entities do not disclose financials" (IMF 2010, p. 45).

On 20 May 2010, Dubai World finally reached an agreement with the creditors' coordinating committee made up of its major creditors over the most difficult aspects of the restructuring of $14.4bn of debt. The coordinating committee then has to persuade 66 other lenders to agree with the terms in order to cross the required

[6] Arab Times, 29 April 2010. http://menafn.com/qn_print.asp?StoryID=1093327000&subl=true; Zawya-Dow Jones, 23 May 2010.

threshold of 66.6% of debt value to make the agreement work and avoid the need to process the agreement through the special tribunal created by the international law adopted by Dubai in late 2009. This very significant agreement augurs well for Dubai's long-term recovery. An all-bank meeting was set for June 2009 where Dubai World aimed for a unanimous agreement of all creditors.

Dubai's GRE-based Real Estate: A Poster Child for Distorting Guarantees?

A bewildering array of competing GREs is not unique to Dubai. Over the last two decades in many emerging economies, especially in large transition economies such as China and Russia there has been a clear rise of hybrid corporations that mix features of private corporations with an explicit relationship with government (Economist, 2009). These hybrid corporations often show different governance behaviour from purely private corporations as GRE decisions are likely to be politicised owing to their relationships with government.

The central policy issue with explicit or implicit guarantees to private or semi-private corporations is that during periods of high liquidity and low interest rates, these guarantees are likely to lead to overinvestment and high-risk management decisions for which Dubai is a textbook case; but, real estate in China shows plenty of similar cases. Over-guaranteed and under-regulated financial and non-financial corporation will cause moral hazard and the overpricing of real estate assets until the boom collapses and then values will sharply reverse themselves. The process creates large contingent liabilities for the government and the public that are never considered, let alone estimated. Yet they are very real: after a bubble, financial losses take the visible shape of vacant lower-grade buildings, with negative externalities on their neighbourhoods.

During boom times, financial markets and the media perceive GREs to be enjoying both the security of the public sector and the innovativeness and dynamism of the private sector. When the bust comes, such organisations may be subject to contradictory pressures and their behaviour may be difficult to predict. The resolution of debt issues between issuers and investors becomes particularly challenging in the case of corporations that had been perceived to be enjoying implicit guarantees by competitive but myopic lenders and investors looking for a short-cut to their own due diligence work during a lending boom. The mismatched maturity funding of large real estate projects is a particularly fertile ground for misleading guarantees.

When it comes to raising capital, rating agencies adopt a different rating methodology in evaluating the default risk of "government related issuers" (GRIs) from what they apply to purely private corporate issuers. The proper rating of a GRI would require a very thorough evaluation of its business model and of its relationship with government. Rating agencies ask: is it an entity with full or partial government ownership or control? Does it have a special charter or a standard commercial one? Does it have a public policy mandate from the national or a local government? What is the nature and degree of government support that the GRI actually receives? (See Moody's, 2005). Unfortunately, there is too often a performance difference between good times and bad times in such risk analyses. The built-in conflict of interest of rating agencies that are paid by the borrowing GRIs surely does not help.

5. Restructuring the Real Estate Sector and Rebalancing Dubai's Economy

What are the lessons for Dubai of international experience with the aftermath of bubbles? There are four areas of reforms after a severe housing and commercial real estate bust. The most immediate task is the restructuring of real estate assets: losses must be allocated and paid for in order to move forward. Of greater significance for the long-term future of Dubai is governance strengthening. Equally important but requiring very different skills is to build the public infrastructure of the real estate sector such as market information, the legal infrastructure, regulation and the development of the professions of the market. The fourth area is to improve lending processes. These four sets of reform activities interact and are mutually supportive.

Real Estate Restructuring: Valuation Challenges Everywhere

The economic environment at the bottom of Dubai's real estate bust is full of uncertainties. Overinvestment during the boom now requires a difficult process of loss allocation and corporate restructuring. Valuations are always at the heart of real estate boom-bust cycles. Investment decisions that are revealed as reckless ex-post, very often received support from property overvaluation during a sustained boom. Myopic expectations and 'group think' intensify over time during a prolonged boom and a property's valuation can be overvalued by a margin of 100 per cent or even more between boom and bust.[7] This can happen when projected net operating income (NOI) is overestimated in disregard of prevailing high vacancy rates. Meanwhile capitalisation rates are very low due to an underestimated cost of capital, the growth rate net operating income is overestimated and the real estate lending risk premium is much too low. After a bust, denial by executives is initially rampant. (See Renaud, 2009b).

Agreement on new valuations is often contentious because it typically reallocates powers and assets. Yet it is absolutely necessary. The challenge is that with economic recovery valuations will improve; so what is the right number to use? Together with new valuations comes corporate restructuring. Hence it is urgent for Dubai's government to provide restructuring rules that meet international standards and that are widely agreed by private stakeholders and local courts. The lack of a clear restructuring process is one of the reasons why recovery from a severe real estate bubble is often measured in years rather than months. One lesson of the 1997 Asia financial crisis is that the local availability of professional skills together with legal and regulatory standards of international level will speed up the cleanup process and is likely to mitigate the magnitude of future bubbles. (Pomerleano in *Hunter et al.* 2003, Chap. 35) Dubai's speedy implementation of international legal and regulatory norms is a positive factor for its economic recovery.

As experience in other real estate busts shows, real estate restructuring around the best A-grade assets and best locations is inevitable. The price map of Dubai is likely to become spatially more differentiated during the bust with prices of class-A buildings in prime location holding up much better that lesser quality buildings in less attractive locations. An unknown share of real estate losses in poor quality projects will be permanent. The price level recovery can take several years: in Hong Kong property values in 2001 remained 60-70 per cent lower than at the peak of the boom in 1997.

In terms of new construction, quality projects that are far advanced will be completed and

[7] A striking example of an extreme shift in property valuation by a factor of 100 to 1 is the foreclosure sale on 8 December 2009 of Hotel W Union Square in Manhattan. This property was purchased at the peak of the boom in 2006 by Istithmar of Dubai for $292 million with a reported mix of 18% equity and 82% debt. Istithmar is an investment subsidiary of Dubai World. The property sold during the bust to one of the debt holder for $2 million, *with the obligation of assuming outstanding debts*. See "Dubai World's $282 Million Hit with Hotel W in Manhattan", Wall street Journal, 9 December 2009, p. c-1.

they will increase the short-term inventory of units for sales. However, the volume of new housing construction starts in Dubai is likely to decline by a significant amount. As an illustration of output adjustment, the number of new housing starts in the USA fell from a high of 1.71 million units in 2006 to 0.622 million in 2008 and remained under 0.6 million in 2009. This is a contraction to less than 40% of the peak output. This U.S. contraction of new construction by 40% is not strikingly different from what has been observed elsewhere.

Governance Strengthening

In the critical area of governance, a real challenge is to restructure effectively the government-related enterprises (GREs) where proper risk management has been seriously distorted by euphoria and by the implicit guarantees and access attached to their status. A particularly obvious flaw is the fundamental weakness of the risk management function in these large organisations: demand analyses and cash flow projections were not simply bold but often reckless. Major individual decisions seem to have been made in the absence of a centralised clearing mechanism and without adequate attention to a comprehensive view of Dubai's urban economy. There are useful lessons to learn from the regulatory and supervisory experience with large infrastructure and public utility projects around the world.[8]

In the same area of governance but for fully private companies, how much can be gained from the 2009 survey of recent experience by the European Public Real Estate Association? From the findings of that survey, one of the challenges facing Dubai's real estate corporations is to convert their board members from mere cheerleaders into effective risk-minded board directors. EPRA finds that five categories of governance factors make a key difference in aligning the interests of company management and stakeholders: management compensation packages linked to performance, the existence of internal and external auditing mechanisms, independence and operation of the supervisory board, disclosure on board members, and reporting standards.[9] In-depth reviews of existing corporate strategies of both government-related and of purely private corporations have become critical as the business environment has drastically changed.

Building-up The Institutions of the Real Estate Market

During the boom years, Dubai overinvested in private real estate goods while under-investing in the public goods of the sector: the regulatory and information system did not keep up with the frenetic growth of the market and systemic risks were not monitored. The accelerating pace of growth and the expectations of the large pool of incoming professional residents heightened the need for solid institutional, legal and regulatory foundations for the real estate sector. The creation of the Real Estate Regulatory Agency is a major foundation for the future, but it is still a young and unseasoned organisation. Like in other countries, its indirect control by the firms that it regulates is a potential risk that would serve neither the interest of the industry nor those of the general public in the long run.[10] RERA will need continuing high level support to operate soundly in the pervasive GRE environment of Dubai. One of the immediate priorities will be to develop rapidly real estate prices indices and a real estate price observatory, for both Dubai and the entire UAE. Once again the experience of Singapore that has one of the finest real estate observatories could be helpful. So far Morocco is the only country of the MENA region with a credible housing price index that covers its cities across the country, which was an initiative of the central bank.

The Dubai economy will be growing at a slower rate than in the noughties for some time. It is therefore a very good time to invest systematically into a quality civil service and in the government infrastructure for the sector. It might be useful to study in some depth the longer real estate experiences of other city-state economies like Singapore and Hong Kong in areas of land use planning, market monitoring and market information. The physical evidence of so many competing very large real estate projects built at world standards for a city economy with a resident population of fewer than 1.5 million and over seven million visitors per year in 2008 suggests that investment scheduling and valuation processes had gone astray in Dubai –for both developers and lenders . A centralised but flexible clearing house of projects for the Dubai emirate, and for the entire UAE is likely to yield significant and lasting benefits for the entire country. On a more positive note, asset price booms and busts differ between stocks and property assets in one critical way: the price of property assets is shaped by their physical characteristics and their specific location in a given urban market. This location factor makes the monitoring of local market fundamentals and of potential bubbles in progress considerably easier for real estate assets than for stocks, provided that there is a local will to invest in a quality real estate monitoring system.

A possible complicating factor in disposing efficiently of residential and commercial properties during the bust is the fragmentation of the urban spatial structure of Dubai. The origin of this fragmentation is the growth strategy based on the system of free trade zones subject to different property rights for foreigners and UAE citizens and subject to different legal systems as well. For the long-term, the fragmentation of the legal space is likely to become a major structural challenge for the future of Dubai. For instance, the bankruptcy law in force for the activities under the authority of the Dubai International Financial Center does not apply outside the DIFC. A special bankruptcy decree was issued on 14 December 2009 to increase transparency and predictability in the restructuring of Dubai World. So far, this new bankruptcy framework applies only to Dubai World. It is hoped that a uniform modern corporate bankruptcy framework will rapidly apply to all of Dubai and to the rest of the UAE, and for personal bankruptcy as well.

Better Management of the Specific Risks of Real Estate Lending

The mortgage market of Dubai and of the entire UAE is still small. A high percentage of purchases during the boom made with cash. Going forward, the aim of UAE banks is to prevent poorly underwritten commercial and residential real estate loans through better banking regulation, supervision and stronger internal risk management in several areas:

- Regulation and supervision of real estate lending with a particular focus on cash flows, pre-sales, and debt-equity leverage.
- Strengthened foreclosure regulations and practice, as well as foreclosure alternatives.
- Strengthened bank provisioning guidelines.
- Suitable regulatory guidelines for mortgage lending, especially regarding the types of complex and poorly understood variable rate mortgage loans that have proven to be very problematic in the UK and in the USA.

[8] See for instance the suggestive Fitch Ratings report "Large Projects, Giant Risks? Lessons Learned" of 18 May 2009.

[9] EPRA finds that the country with the highest average governance ratings is the Netherlands, but the quality of governance practice varies within areas and countries.

[10] Witness the major and still growing controversy in the U.S. regarding the behavior of regulators at the Federal Reserve Bank of New York during the A.I.G failure of September 2009. See for instance Louise Story and Gretchen Mortgenson, "In U.S. Bailout of A.I.G., Forgiveness for Big Banks." http://www.nytimes.com/2010/06/30/business/30aig.html?ref=gretchen_morgenson

- Development companies should not be permitted to be majority shareholders of specialist mortgage lenders. This creates conflicts of interest and may lead such lenders to fail as seen in the solvency problems of Amlak owned by Emaar and Tamweel owned by Nakheel.

The volume of real estate investment during the boom had run well ahead of the legal and regulatory infrastructure. In terms of legal improvements, five areas in Dubai – and the rest of the UAE – will require rapid and coordinated action to:

- Strengthen and develop further existing mortgage laws
- Reform outdated personal and corporate bankruptcy laws
- Clarify and develop foreclosure procedures
- Invest in the training of local judges specialised in consumer law
- Invest in the training of local judges qualified to deal with real estate cases

One of the short-term advantages of the corporate-like structure and culture of Dubai's government is the ability to move rapidly in developing new legislation and implementing new regulations. The government has been quite willing to adopt international best practices and to seek the best possible advice. However, while there are principles of best practice there is no universal model of housing finance and real estate finance applicable everywhere. (See Chiquier and Lea, eds. 2009). Adjustments to local Emirati conditions will be needed. In particular, erasing the differences in laws and regulations that fragment the urban space and create dichotomy between 20% of UAE citizens and 80% of expatriate residents will serve the long-term future of Dubai and the UAE well. There is an unexpected parallel here with China where the legacy of central planning has created a problematic duality of rights between rural and urban citizens during the country's era of most massive urban growth (See Renaud, 2009b).

6. Conclusion: Dubai and the UAE at an Inflexion Point

Dubai's problems that were caused by highly leveraged growth are representative of issues encountered around the world in the aftermath of the global credit boom: how to manage the restructuring of the real estate industry after a massive boom that has affected all its subsectors; how to manage credibility on global and domestic markets by allocating losses in a transparent and fair way across lenders, investors and other stakeholders; how to improve the governance and clarify the structure of state institutions; and, how to address the difference between the perception and the reality of guarantees, which was the biggest source of problems in the Dubai financial crisis.

Today Dubai is at an inflexion point in its growth strategy. Because it leveraged itself into an excessive level of real estate investment, the emirate, its lenders and its investors face substantial short-term losses. However, if Dubai implements the right reforms and rebalances its economy away from real estate, these losses can be made up in the medium and long term. This real estate correction will take time and may be painful as triage across projects of very different quality is inevitable and valuations will often be difficult. Strengthening the generally sound UAE banking system to prevent future real estate problems from spilling over the banking system will take further structural improvements. Better governance and full financial transparency are priorities that will serve Dubai well and will strengthen the comparative advantage that it has been building over the past decades.

Dubai is an open economy whose immediate future rests on the speed and quality of its real estate restructuring. The still young UAE federation itself has also reached a new threshold as the proud autonomy of each emirate until the crisis is less suitable in an era of much slower global growth and greater uncertainty when closer coordination will have many benefits.

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The Revitalisation of Brazil's Housing Finance System

↳ By Claudia Magalhães Eloy

1. Introduction

The Brazilian Housing Finance System (SFH) has been making a revival over the last few years, after almost two decades of low activity since the collapse of its central agency, the National Housing Bank (BNH), in the mid 1980s, reaching housing finance volumes not previously seen even in the widely regarded best years of SFH in the early 1980s. Yet, the mortgage credit to GDP ratio is still quite small, around 5%[1], considering the size of the Brazilian economy, and the comparison with other Latin American countries. Warnock & Warnock's (2008)[2] study on 62 countries observed that the average ratio for developing countries is 10%, and 55% for developed ones. While this may indicate that there is a high growth potential for housing finance in Brazil, it may also signal the need to understand the actual possibilities and restraints of the Brazilian mortgage market better.

With a stock of 54 million housing units, most of them financed and produced by families themselves, SFH is accounted to have financed around 9.5 million units in the period to 2008. The need for credit is quite high, with an accumulated housing deficit estimated, in 2008, of 5.8 million units[3], and new demand, represented by household formation each year, expected to be an average of approximately 1.6 million units per year until 2023[4]. While the accumulated deficit is mostly concentrated among low income families – 89% formed by families up to about BRL[5] 1,400.00 (equivalent to three Minimum Wages), and a further 7% by incomes up to BRL 2,300.00 (between 3 to 5 MW), the demand is expected to show a better distribution, as long as the economy keeps increasing, and even more so if income inequality continues to lessen. Due to their low income, many of these families do not yet constitute a real demand for housing and credit.

Over the last years, housing production and financing in Brazil have been experiencing rapid expansion. Steady growth, stable economics, declining interest rates and a number of legal reforms are the main factors associated with this significant growth. In 2009, fearing the impact of the financial crisis on the national economy, the Brazilian government launched a housing subsidy program that will boost this year's results higher than the unprecedented number of 705,000 units financed by the System in 2009.

This article intends to provide an updated picture of the Brazilian Housing Finance System, briefly going through the aspects and changes that have fostered the recent expansion of the mortgage market, highlighting some of its factors and figures, as well as perceived trends and challenges faced for mortgage credit development in the country. In particular, this overview draws attention to the concentration of lenders in the financing sector that may limit mortgage credit growth while leaving aside other important variables. These include the ability of local developers to cope with housing production expansion, mainly in the affordable homes sector; the production capacity of the construction material industry; institutional capability at all levels, especially at the municipality, and others, that may also be deterring a more vigorous increase of housing finance in Brazil, and may neglect certain groups and regions.

2. A New Economic and Regulatory Environment

A set of coherent macroeconomic policies – fiscal policy with deficit and public debt controls; monetary policy, based on inflation targets; and, floating exchange rates – brought about stability allowing the country to finally leave behind its historical pattern of very high inflation and interest rates. For the first time in Brazil, the maintenance of these policies for the entirety of the last decade[6] and their foreseen future continuity, indicate that interest rates will decrease, and gradually promote the shift of investments from treasury bonds to other types of investments, including ones of longer maturity such as mortgage securities and bonds, stimulating the expansion of mortgage credit. These policies have also allowed the country to suffer very little effect from the international crisis. Although in the last months of 2008, and in the first quarter of 2009, there was strong apprehension, demonstrated in the reduction of credit (especially long term) and consumption that suggested Brazil was heading to a considerable number of layoffs and some level of recession, by the end of the year almost a million new jobs had been created and mortgage credit reached a record high.

GDP rose steadily at an average of 3.8% between 2003 and 2007, reaching 5.1% in 2008, in spite of a negative of 0.2% in 2009, is expected to grow 7% this year[7]. Growth in GDP has been essential to jobs and income dynamics, fostering the increase in savings as well as the demand for housing. Families' consumption rose from 3.8% to 7% in 2008 and even in 2009 grew 4.1%. The comfortable level of international reserves,

[1] Abecip (2009). Including SBPE and FGTS. Many consider SBPE only, which would mean approximately a 3% ratio.

[2] Warnock, Veronica; and Warnock, Francis. *Markets and Housing Finance.* (draft oct, 2007). at http://ssrn.com/abstract=981641. accessed on July 10th, /2008.

[3] According to Fundação João Pinheiro, 2009, based on IBGE/PNAD, 2008.

[4] CEDEPLAR, UFMG, 2007.

[5] Brazilian Real.

[6] Before, Brazil had only maintained the same macro-economic policy for a maximum period of 8 years (1960/70).

[7] See Relatório Focus, at www.bcb.gov.br.

the reduction of external debt and the achievement of investment grade in the first semester of 2008, have enabled the country to go through the international turmoil without much turbulence. This new environment of economic soundness has been the basis for the significant expansion of overall credit and, especially, mortgage credit.

Since 1997 important legal reforms have been undertaken, among them one of the most important, which focuses on the ability to take control of collateral in the event of default, is the adoption of Trust Deeds (Alienação Fiduciária). This alone has reduced the time needed to take possession from around 6 years to 6 months. Since the implementation of chattel mortgage (retention of title by the financing agent as a collateral), overall Net Present Loss has dropped from 9.7% in 2004 to 3%. Looking just at contracts under Trust Deeds, NPL is down to 1.2%[8].

3. The Origin and Development of the Housing Finance System

The origin of mortgage credit in Brazil goes back to 1964, when the federal government structured the Housing Finance System (SFH), a specialised system, created amidst the financing system and capital market reforms, together with the institution of indexation[9]. SFH encompassed the creation of the National Housing Bank (BNH) and two sources of funding. Firstly, a provident fund FGTS (Fundo de Garantia por Tempo de Serviço) that collects compulsory savings for workers[10], and secondly savings accounts under a subsystem called Brazilian Savings and Loans System (SBPE – Sistema Brasileiro de Poupança e Empréstimo). Instituted in a period of semi-stagnation for the construction industry, and strongly motivated by the need to create jobs, the SFH established as its objective the promotion of housing for low income families[11].

The acquisition of funds was such that by 1970, BNH became the country's second biggest bank[12]. During the late 70's and especially early the 80's, SFH achieved a significant amount of loans, fostering a large housing production. Yet, the system served mainly medium and upper income families[13] and discounts (subsidies) offered were mostly regressive, becoming larger as financing amounts increased (see Ferreira, 2003 and Köhler, 2003[14]). However high inflation rates caused a mismatch between instalment indexes that were related to increases in salaries and the evolution of the outstanding loan debt according to mortgage contract terms, while growing unemployment reduced the deposits and increased default, undermining the System's equilibrium.

In 1986, SFH underwent a restructuring process[15] that extinguished BNH, transferring FGTS management and the execution of housing programs to CAIXA, a state owned bank; fiscal and controlling functions to the Central Bank and the National Monetary Council (CMN). During the following nearly two decades, housing policy was dismantled.

It was just in 1997 that a new subsystem was added – Real Estate Financing System (SFI, Sistema Financeiro Imobiliário) – to promote securitisation based on mortgage loans[16], which aimed to expand the system's funds and reduce its dependency on the savings and loans system or, as many expected, substituting the savings and loans model based on SBPE and FGTS.

At the institutional level a series of recent events shows that, for the first time since 1986 housing has returned to the public policy agenda. These include the establishment, in 2003, of the Council of Cities[17] and of the Ministry of Cities, taking up the role of previous Urban Development Secretary; the elaboration of the National Housing Policy (PNH) in 2004; the establishment of the institution of the Affordable Housing National Fund (FNHIS, *Fundo Nacional de Habitação de Interesse Social*)[18] in 2005 and the development of the National Housing Plan (Planhab) from 2007 to 2008. The goals set by the PNH are very ambitious and include universal access to decent housing and making housing issues a national priority.

4. Crisis Hit

As the U.S. subprime mortgage crisis turned into an international financial crisis, in the last quarter of 2008 the turmoil hit Brazil, affecting more strongly the real estate sector, reducing credit and sales and reducing new housing developments in the first months of 2009. From January to July, 2009, a 32% drop in the production of housing units compared to the same period of 2008, left developers short of cash and made development industry stocks abruptly lose value. Also, the volume of financing contracted on SBPE in the first three months of 2009 was almost the same as 2008 – BRL 5.8 billion against 5.4 billion – clearly indicating a slowdown in the mortgage credit growth pattern.[19]

As a counter measure, the Federal Government launched an anti-cyclical package intended to boost the economy and prevent the country from facing serious unemployment. This included a housing subsidy program – Minha Casa Minha Vida (PMCMV) encompassing a public investment sum of BRL 34 billion and a goal to finance production and acquisition of 1 million units between 2009 to 2011[20]. 44% of the investments are designed to hire private sector developers to produce affordable units targeted to families with incomes below BRL 1,400.00 (equivalent to three Minimum Wages), selected by municipal governments. Families shall pay 10% of their incomes for 10 years, with no risk criteria or implications for CAIXA, the financing agent responsible for these operations. A further BRL 2.5 billion was used to offer subsidies – both upfront and in the form of tax concessions - on FGTS financing operations for families up to 6 MW, thus promoting the expansion of this fund's budgets. Programme investments also include BRL 2 billion to set up a new Guarantee Fund for FGTS mortgage credit to families up to 10 MW and to provide insurance cover[21] at significantly reduced costs.

Despite the shrinkage in financing, following September 2008, between June 2008 and May 2009 SBPE totalled BRL 30.8 billion in mortgage credit, a growth of 38% in relation to the

[8] According to Abecip, Associação Brasileira de Entidades de Crédito Imobiliário e Poupança, 2009.

[9] Before 1964, there were provident institutes (IAPIs e IAPs), that produced about 260 thousand units to some professional categories over around 3 decades, and there was the "Fundação da Casa Popular" (Affordable Housing Foundation), in this case a public institution, that financed approximately 17 thousand units between 1946 and 1964 on plots of land donated by state or municipal governments (Bonduki, 1999).

[10] Public servants, maids and informal workers are excluded from this system as account holders, but may access financing from its funds.

[11] "... destined to facilitate and promote the construction and acquisition of housing, especialy by low income families..." (Art.8º Law 4.380).

[12] At first, 85.7% of BNH's was composed of FGTS, but after the regulation of savings accounts, the deposits had such a growth that by 1980 surpassed FGTS, accounting for 53% of System's total.

[13] See Azevedo, 1988 and 1996; Maricato, 1987; Magalhães, 1993; Rezende, 1993; Souza, 1993; Bonduki, 1996; Carneiro and Valpassos, 2003; Aragão, 2007.

[14] Kohler, Marcos. *Financiamento habitacional no Brasil*: Muitos subsídios, poucos pobres. Revista de Informação Legislativa, Brasília, ano 40, n. 157, jan/mar 2003. p.: 113-129.

[15] Decreto-Lei nº 2.291/1986

[16] Certificados de Recebíveis Imobiliários (CRIs), issued by Securitization Companies.

[17] Originated from the National Council of Urban Policy in 2001, it is responsible for proposing the regional distribution of the Ministry of Cities' budget.

[18] Federal Law 11.124/2005.

[19] See www.bcb.gov.br

[20] In reality, there is no timeframe definition, but it is estimated that MCMV should last for about 3 years

[21] MIP – covers outstanding debt in case of death or permanent incapacity; and, DFI – covers physical damage to property.

previous period, from June 2007 to May 2008. Also, price of stocks of real estate companies initially significantly affected have also moved up. After falling 43% between September 2008 and January 2009, the Imob index that represents stocks of major developers in the country, went up 123% from January to August 2009, way over the record of 49% of Ibovespa in the same period. Companies focused on low income segments had even higher recoveries; ordinary stocks of Tenda rose 222%, MRV's 170% and Helbor's, 118%[22].

5. SFH Today

Despite the creation of the two new funds, SFI and FNHIS, the Brazilian System still relies on its original funding mechanisms – SBPE and FGTS. While the establishment of FNHIS represented the recognition that public funds from the federal budget must also be allocated for housing on a regular and perennial basis, this Fund was structured as a mere accounting fund that does not actually receive and manage budget allocations. Also, budgets have not been very significant since its creation, and FNHIS was not used under PMCMV[23], thus weakening its role on SFH.

Up to now SFI has not performed as expected – since its creation in 1997, securitisations have totalled only BRL 7.3 billion up to 2009. Also, it has had very little impact on housing finance; just 20% of total securitised in 2007, and is more costly than the traditional funds, SBPE and FGTS. A shallow secondary market plus the structure of government borrowing through short term bonds indexed at high and floating rates seem to be the basic reasons that keep securitisation from taking off. Other restraints come from the lack of mortgage contract pattern, lower interest rates on FGTS and SBPE, and the indexation of credits originated under those funds[24]. Other mortgage credit instruments have been showing growth such as Mortgage Bonds and Real Estate Investment Funds, totalling BRL 5.7 billion of net assets[25]. Yet, this last one has been, so far, basically restricted to shopping malls and commercial tower blocks.

Thus, SBPE and FGTS, the first funds instituted at the beginning of the SFH remain as the basis of the System and in the present decade have been showing steep and constant growth in terms of amounts deposited as well as housing financing contracted.

FGTS reached BRL 241 billion last March with a BRL 63 billion stock in housing finance. In 2009, this fund alone financed over 403 thousand units (new and used) totalling BRL R$15.9 billion, against 9.6 billion in 2008 and 6.9 billion in 2007. Yet, those numbers represent an average of 82% of FGTS yearly budgets for housing finance, showing that financing contracted is always below volumes made available from this Fund, while the National Housing Plan indicated that budgets were already below actual FGTS availability. Considering that FGTS offers the lowest interest rates in the System, 7.16% per year, down to 5% when subsidies apply, it still constitutes the most suitable funding for mortgage credit for low income families.[26] Thus, though increasing, budgets and applications could be higher. Among the factors that may be limiting the growth of housing loans are the interest rates, still quite high; the fact that a Council (Conselho Curador do FGTS, CCFGTS) that is not responsible for the housing policy defines its budgets; the quasi monopoly of CAIXA on operating FGTS loans; or even the fact that within FGTS housing loans compete for funds with Treasury bonds and project finance for infrastructure projects, through a newly created investment fund called FIFGTS (Fundo de Investimento do FGTS), that operates with FGTS net assets.

FGTS has also been providing money for subsidy[27], due to net earnings obtained from the difference between interest gained on investment applications on treasury bonds and lower interest paid to account holders (fixed by law at 3% annually). From 2005 to 2008, over BRL 6 billion were applied in direct subsidies used by borrowers for down-payment as well as caps to lower interest rates, allowing lower income families to access FGTS financing. Although it is generated from surplus interest accrued, many are against this source of subsidy arguing that it is against the interest of FGTS account holders. Now, FGTS subsidies have been complemented by federal budget resources at a 0.25% to 0.75% ratio, under PMCMV. Despite the origin of resources, the importance of subsidies to promote access to low income families is unquestionable in Brazil, and has been confirmed by the significant rise of the participation of lower income families, from BRL 900.00 to BRL 1,900.00 (equivalent to 2 to 4 MW) in mortgage loans since PMCMV.

Between 2003 and 2009, SBPE went from BRL 2.7 billion to BRL 34 billion[28], totalling about BRL 103 billion in real estate financing in 7 years, BRL 64 billion of those in the last two years alone, and an expectation of BRL 50 billion in 2010[29]. Units financed totalled 302,000 in 2009, against 300,000 in 2008, showing that volumes financed are growing faster than units, thus financing per unit has risen. Volumes deposited in the savings accounts grew from BRL 227 billion in Dec.2008, to 240 billion in Oct, 2009 and BRL 260 billion in Mar.2010[30]. Further significant trends within SBPE regard the increase of LTV from an average of 53% to 61% in 2009, mortgage terms up to 30 years, and the reduction of loan interest rates down to 8.2%.

Banks have been asking for regulatory lessening of SBPE, since there are mandatory lending rules related to the volume of deposits per agent. Yet, based on the expectation that soon SBPE loans on banks' portfolios will exceed requirements related to deposits, there has been talk about the end of SBPE as a considerable source of mortgage finance, thus making securitisation its natural substitute. What will really happen is yet to be seen, but in the short term, it seems that SBPE will continue to grow and stay as the main funding of the System.

The main worry regarding SBPE as a primary source of mortgage credit is the risk of mismatch between short term deposits and long term loans. Although the risk is realistic it should be measured in relation to the leverage of those loans to SBPE deposits and overall bank portfolios, alternatives for the System and measures that could mitigate such risk. Nonetheless, it is interesting to observe that SBPE, popularly known as "poupança" is such a well-liked investment that, throughout these 43 years of its existence, when it is not an interesting investment option, due to its limited interest of 6%+TR even considering tax-exemption, it still receives a considerable amount of deposits.

Regional distribution is also relevant since despite the revitalisation process has allowed an increase

[22] According to Economática, published in Valor Econômico, 22.06.2009.

[23] PMCMV has been using another accounting fund – FAR (Fundo de Arrendamento Residencial) that already existed to operate one of the housing programs (PAR).

[24] TR (Taxa Referencial), measured according to a "formula" designed by the government, does not reflect inflation any longer.

[25] CVM, April 30th, 2010.

[26] FGTS raises funds at lower costs, since its deposits earn 3% per year, a fixed rate established by Law, while SBPE deposits earn 6% and Selic, the basic interest rate, is now 10.25%. Both on FGTS and SBPE, a Taxa Referencial (TR), a special SFH indexation, is added to interest rates paid on deposits as well as monthly installments of loans.

[27] CCFGTS Resolution #460/2004.

[28] Around BRL 14 billion financed developers/construction and BRL 20 billion acquisition of units (both new and used).

[29] Boletim Informativo de Crédito Imobiliário e Poupança – ABECIP, Mar.2010.

[30] Savings deposits have risen especially after the greater decline on interest rate – Selic (basic interest rate) was 8.75% until recently and is now 9,5% – making these accounts more attractive since interest accrued on the deposits – 6%+TR – is tax exempt. It is interesting to point out that even when SBPE was not such a good investment in comparison to treasury bonds and other fixed rate investments, savings accounts still managed to capture a significant amount of families' savings. That may be explained by cultural factors and government guarantee up to BRL 60 thousand per account holder.

of loans throughout the country, both FGTS and SBPE financing is very much concentrated in the Southeast and South regions of Brazil. In 2008, these regions received 78% of FGTS loans and 75% of SBPE's. Although a reflection of regional economic inequality, it is also imperative to understand the dynamics that explain this distribution and their implications, for policy design.

6. Financial Sector

On the one hand the Brazilian Financial Sector is characterised by a sound prudential regulation and strict supervision from the Central Bank, which prevented the country from being seriously affected by the international crisis.

On the other hand, it exhibits a very high concentration among few financing agents and a skewed market share distribution for mortgage credit. Of a total of 336 banks in 1964, only 164 remained in 2003. At the end of 1994, the five biggest Brazilian banks were responsible for about 57% of overall credit, increasing to 77% in December of 2008, as a result of a series of mergers and acquisitions in the financial sector. Around only 20 agents, some belonging to the same business conglomerate, work with SBPE savings and loans. CAIXA, a state owned bank, accounted for 73% of SBPE loans contracted during 2009, an impressive rate of growth considering that in 2004, CAIXA's share of SBPE was 41%. Also SBPE deposits held by CAIXA correspond to around 34% the system's total savings. CAIXA is also basically the only agent working with FGTS housing loans, and since the loans effectively contracted are historically below the budget, there is a possibility that CAIXA's operational capacity may be limiting the expansion of the availability of loans despite funds.

Aside from CAIXA, mortgage credit still plays a small role in the portfolio of large commercial banks, including Banco do Brasil, another public bank that has just started on housing finance and is expected to have access to FGTS funds. More focused on short term credit, recently private banks have become interested in mortgage credit beyond their share on SBPE imposed by regulation. That implies that many agents lack knowledge and experience in mortgage credit and related risk evaluation, efficiency in loan processing/servicing, especially regarding low income families.

According to Escrivá (2007)[31], Brazil shows one of the highest public banks' market share of credit among emerging economies. Some of the questions that derive from these observations are: Is the predominance of CAIXA in SBPE and its (almost) monopoly on FGTS useful in alleviating the pressure for profitability, encouraging loans to borrowers whose return is not considered attractive by private banks? Does CAIXA serve markets where private banks are indeed unwilling to serve or would other banks operate with lower income if they had better access to FGTS? Does concentration on CAIXA imply poorer risk management? Will the entrance of Banco do Brasil allow for private banks to increase their participation? Does the importance of public banks encourage to more or less competition in the banking industry? Does concentration on CAIXA hinder innovation? Does it limit the expansion of FGTS funds dedicated to mortgage credit? Although there is research on the theme of concentration and public banks (see, for instance, Coelho, Mello and Rezende, 2007[32]; Yeyati and Micco, 2003[33]), many of these questions remain open for debate in Brazil.

Aside from these issues, research conducted by the IFC (2007) showed that 66% of Brazilians still did not have bank accounts, which suggests that for mortgage credit to be reachable, banking in general needs to be made accessible for the country's population.

Finally the insurance market is poorly developed – so far only "death and permanent disability insurance" (MIP) and "physical damage to property" (DFI) are available. Mortgage, performance and other housing finance related insurance instruments have not yet been made available. Also, until 2009, borrowers had to stay with the MIP and DFI insurances offered by subsidiary or partner insurance companies of the banks they were contracting the housing loan, holding back competition and keeping insurance more costly. PMCMV has provided, through its Guarantee Fund, MIP and DFI coverage and mandated agents to offer at least two insurance options, at least one from a non partner or subsidiary company, promoting competition and the reduction of insurance costs.

7. Conclusion

The growth of credit is fundamental to the housing issue, especially after almost two decades of very low investments. The question is whether the revitalisation of SFH is here to last. It does seem that some of the basic conditions to develop Brazil's mortgage market have been put in place, especially those regarding economic stability and regulation. However, one should not take it for granted and assume that given time, Brazil will finally reach the level of mortgage credit as a ratio of GDP found in Chile, with approximately 15%, or even higher ones such the South African's 22% and Malaysian's 28%[34]. Just to match the 10% average ratio found among emerging economies (Warnock and Warnock), the country would have to double the amount of mortgage credit, certainly not a simple task. Important issues that may restrain its growth have not yet been solved or even well comprehended and wait for adequate interventions. The fact that the System still relies almost solely on its original funding may impose constraints in the future, especially if SBPE and FGTS remain unchanged. Other issues certainly include the huge concentration on CAIXA and other financial sector structure aspects; poor credit and real estate information sharing; lack of risk buffers and insurance instruments/market; and, a shallow secondary market.

They also comprise land market and the enforcement of regulatory instruments[35] as well as the effectiveness and sustainability of the subsidy policy that will enable those with low incomes to have access to formal housing finance. Subsidies provided under PMCMV have significantly fostered financing among families with monthly incomes from to 2 to 4 MW, enabling them to purchase housing units offered by the market. Although mainly motivated by the international crisis, the public investments put together for PMCMV may open the way for larger and more sustainable housing subsidy budgets dedicated to affordable housing finance[36]. A second phase of the Program has been announced, extending significant public budget allocations to housing subsidies until 2014. Again, it will need to evolve from a Program to a long term policy.

There seems to be no question about the revival of the Brazilian Housing Finance System but not all necessary conditions to allow for SFH to mature and reach levels, measured by mortgage credit to GDP ratio, found in other emerging economies are in place. Moreover, the adequacy of this System to better serve certain regions and include unattended population groups is yet to be accomplished.

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[31] Escrivá, José Luis. Ample Stable Credit & Adequate Financial Regulation: Finding the Balance for Emerging Countries. June, 2007.

[32] Coelho, Cristiano; Mello, João; and, Rezende, Leonardo. Are Public Banks pro-Competitive? Evidence from Concentrated Local Markets in Brazil. (2007).

[33] Yeyati, Eduardo; Micco, Alejandro. Concentration and foreign penetration in Latin American banking sectors: impact on competition and risk. IDB Working Papers, 2003.

[34] Warnock e Warbock (2008), calculating the average percentage from 2001 to 2005.

[35] Established by "Estatuto das Cidades".

[35] A Constitution Amendment proposal currently under analysis establishes a mandate of 2% of the federal budget and 1% of state and municipal budgets to go into housing.

Towards a Sustainable Housing Finance in Nigeria: The Challenges of Developing Adequate Housing Stock and a Road Map

By Dr Timothy Gbenga Nubi

Abstract

This study acknowledges the importance of housing in the economy of any nation and the mortgage market as a measure of economic vibrancy. While mortgages account for more than 70% of the GDP in developed economies, it is less than 1% in Nigeria. Despite several efforts that have been made to develop the mortgage system in Nigeria, very little success is recorded due to a number of restrictions. Past studies on housing finance in emerging economies rarely consider the nexus between housing supply and housing finance. The poor performance of the construction industry especially the home builders or housing developers is identified as a major hindrance to the development of a robust mortgage system (Nubi 2006). This study is a combination of a field study and the use of secondary data to examine the structure, operations and factors that restrict the operations of housing developers in Nigeria. The study revealed that Nigeria has neither a single indigenous construction company capable of handling large scale projects nor a real estate developer that builds more than 100 housing units per annum. The developers rely mostly on loans from commercial banks and cannot access the long term finance that the capital market offers. All this has contributed to the deficit of about 14 million quality homes needed to create mortgages that should considerably revive the industry. The paper therefore recommends that developers should team up to undertake large scale projects while concerted efforts should be made to encourage new entrants into the market. Construction costs should be reduced by reducing the cost of land and documentation while the use of locally sourced material and skills are promoted.

1. Introduction

The linkages between housing and the economy of any nation cannot be overemphasised. Even as housing serves its fundamental role as a residence, it presents very important opportunities for drawing in local investment, supporting business productivity by presenting effective demand for a whole range of products. The labour market, the construction industry, the infrastructural development industry, and the financial system are all beneficiaries of a vibrant housing market. It is little wonder then that in most developed countries, the housing market accounts for a significant proportion of the GDP. Thus residential mortgages alone contribute over 87% of the GDP in Denmark and 71% in the USA. In the UK it is slightly lower at 70%, while in Germany residential mortgages contribute 54% of its GDP, Hong Kong stands at 31% and Nigeria comparatively lower at 0.8% (Nubi 2007 and Reis 2008). With such significant contribution to the economy as a whole, it is obvious that there is a high positive relationship between the economy and the housing market. The global importance of housing investment was accentuated by Pollock (2000) when he asserted that the world wealth was estimated to be in the region of $44 trillion of which approximately half is in real estate. The study then, did not make known the value of residential real estate on a global basis, but did in the United States, where 60% of real estate value was in form of owner occupied houses. If this relationship is extrapolated, it suggests that residential real estate represents about 30% of total world wealth, making it the largest single component. This is especially true in countries that rely on the availability of credit for both household and macro-consumption.

According to (Renaud 2004), where there is a well-structured housing finance system, the city appears well organised with well built houses. Otherwise, housing construction becomes incremental or progressive, sometimes spanning well over 15 years, inevitably creating substandard homes and slum settlements (Omirin 2007). Wide spread availability of home mortgages according to Titman (2002) helps to improve living standards and poverty alleviation by impacting on the quality of home construction, increased infrastructure and urbanization. Developed countries are able to reap positive externalities: increased savings, financial market development, stimulation of housing investment, upgrading of properties, increase in housing stock and, hence, the development of the construction industry with abundant job creation opportunities - all generally accepted as benefits of the housing industry. Besides, housing provides the best and most secure collateral for further loans, with the attendant social recognition of being a home, owner and the attachment it brings to the community (Frenkel and Rapetti 2009).

Unfortunately, the housing market and mortgage sector of Nigeria are still at an embryonic stage (Nubi 2006). Experience shows that savings, incremental construction and remittances from abroad, loans and gifts from family and friends, which are the conventional methods of finance outside the formal mortgage market, can hardly meet the financial requirements necessary to provide the required quality housing. The government, despite its direct home construction policy, has proven to be an inefficient and ineffective contributor to housing supply and finance. Despite the billions in funds drawn for this purpose, limited success has been achieved. According to Agbola and Olatubara (2007), previous attempts at public housing construction in Nigeria show that in 1980 only 13% of planned construction was completed. Similarly, evidence from various planning authorities has shown that the percentage of completed units to building plan application is abysmally low. The private sector, here characterized by the informal sector, i.e. individual developers constructing incrementally with their own funds and with a few corporate builders, according to the National Housing Policy (NHP 1992), supplied about 90% of the nation total stock. As contained in the

National Housing Policy document 1992, the Federal Government of Nigeria officially abandoned its direct construction policy for a new role as facilitator and enabler to the housing industry.

It is a known fact that governments of developing countries according to Ofori (2002) are major clients and investors in the construction industry. Non involvement of government and shifting the responsibility of housing delivery to a private sector that is at its infancy, with neither financial nor technical capacity to deliver, has grossly increased the housing deficit in developing countries. This is true for Nigeria, where despite a history of direct construction, there is still a deficit of over 14 million housing units. According to Mabogunje (2007), at a conservative construction estimate of N3.5 million ($25,000) per home, about $3.5 trillion is needed annually to fund the housing deficit if 1.4 million dwelling units are to be built annually for the next ten years to defray the deficit. According to Ebie (2006), acute shortage of housing stocks as underlying asset upon which mortgages are created remain the most critical of all other restrictions. All attempts to develop the mortgage sector in Nigeria in the 1990s failed mostly due to this factor Nubi (2006). The paper draws attention to the implication of acute shortage of quality housing stock on the mortgage market development in Nigeria and the factors that are responsible for the poor performance of Nigerian housing developers. In addition, the paper also recommends key actions to be taken to increase housing supply in Nigeria.

2. Housing Finance, Housing Supply and the Housing Stock Connection

When it comes to what to do in emerging financial markets, views of mortgage market development policies according to Renaud (2004) and Nubi (2007) remain framed by the experience of a few high-income economies; especially by the remarkable rate of innovation in the US financial markets during the last thirty-five years. Experts often assume the availability of housing stock and a highly developed home building industry. So far, there has been no study on the effect of the state of construction industry on the organisation, structure and performance of housing finance systems in emerging markets such as Nigeria. Renaud (2004) identified five recurring structural issues that need to be considered when proposing a mortgage market strategy as: market size, macroeconomic stability, the degree of development of financial market infrastructure, legal and structural path-dependency in the development of this financial infrastructure, the feasibility of domestic risk-based pricing for medium and long-term financial instruments, all with the implicit assumption that housing stocks are in regular supply as it exists in developed economies.

In England for instance there were an estimated 22,564,000 dwellings as at 31 March 2009, an increase of 0.74 per cent on the previous year. The house building industry often responds well to the challenge of increasing housing supply, with supply in 2007/08 reaching 207,500 additional homes, an increase of 59 per cent compared with 130,000 in 2001/0 (Community and Local Government 2010). This is not the case in Nigeria where the biggest housing corporations like the Federal Housing Authority (FHA) with access to basic resources built only 30,000 houses in 34 years. No private developer can boast of 1000 units of houses in 10 years in Nigeria. Most of the so called mortgage loans given in Nigeria were construction loans. These were often secured with land titles. Such loans often carry both construction and credit risk. In most cases due to the volatility of the economy the loans were never enough to complete the constructions, leading to abandoned projects and a high rate of defaults. Foreclosure is rare in Nigeria because of legal restrictions but where foreclosure is possible, there is hardly a market for uncompleted and abandoned houses (Adewole, 2010).

3. Property Development Agencies and the Operating Environment in Nigeria

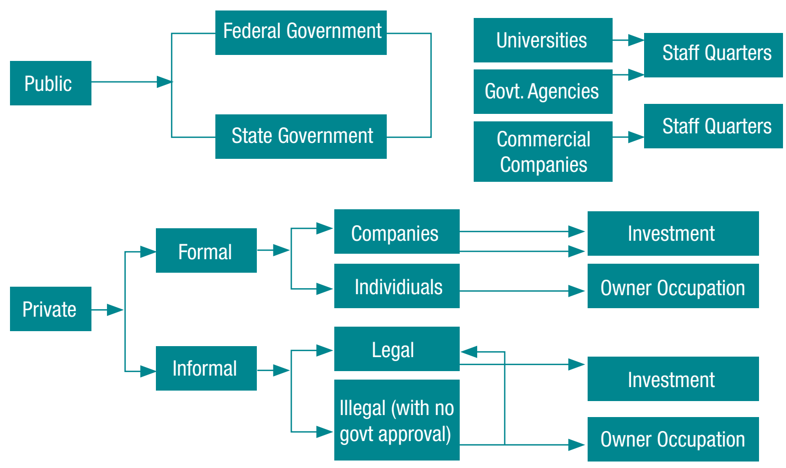
As stated earlier the nation in the last ten years has attempted to restructure housing policy to deliver the required 14 million housing stock in line with the demand of global best practice. The policy thrust was to have a private sector driven housing system. The Government in the year 2000 realised that this could only be achieved by introducing policy reforms and re-engineering the existing institutions, hence the shifts that emphasised a(n):

- Establishment of a Real Estate Developers Association (REDAN);
- Establishment of a Ministry of Housing;
- Restructuring the housing finance system through Federal Mortgage Bank of Nigeria (FMBN) - introduction of Secondary Market); and
- Land reform.

In line with the above, REDAN was inaugurated in 2002 by the president of the country with the following aims and objectives:

1. To provide a central, national organisation, which will articulate the aspiration, activities, target and aims of Real Estate Developers in Nigeria in order to facilitate, enhance and realise those aspirations activities, targets and aims.
2. To promote the development of residential estates in order to increase the stock of housing units available at affordable costs for all classes of Nigerians.
3. To promote the rehabilitation, refurbishment and general improvement or upgrading of existing housing units and residential facilities, in both the urban and rural localities, which are deemed to be dilapidated, substandard or otherwise of inferior quality.
4. To promote the development of commercial, industrial and agricultural estate, as a complement to the development of residential estate to ensure a balanced land use pattern in the country.
5. To liaise with financial institutions to develop an effective home ownership mortgage facilities to provide more realistic long-term mortgage facilities for prospective homeowners.
6. To set targets, in line with government policy objectives with a view to fully mobilising the private sector, for participating in the development of set targets.
7. To liaise with interested foreigners in both the private and public sectors, who want to participate in the Nigerian housing program as financiers, builders, and technological innovators or in any other capacity that is deemed likely to enhance the delivery of good and affordable housing to the Nigerian people.
8. To pool the resources of all potential investors, local and foreign, towards achieving economies of scale in real estate development and ensuring that the products of participants conform with National Building Standards and Regulations.
9. To provide a united front in making recommendation to the government on ways of promoting real estate development and in seeking solutions to practical problems in the property market.
10. To provide the use of local inputs and financial research into the suitability of local building materials in the country.
11. To establish links with the Real Estate Institutions and Allied bodies at home and abroad with the aim of promoting the development of the industry.

Figure 1 **Housing Producers in Nigeria**



Source: Omirin M. M. (1992) and Nubi (2006)

12. To publish and/or disseminate relevant information through bulletins, seminars, workshops, lectures etc. for the education of members of the association and the general public.

3.1 Who is a Real Estate Developer?

Mabogunje (2002) defined a Real Estate Developer during the inauguration of REDAN as not just a construction company or just a contractor. He/she is not even just a real estate investor or a professional like an architect, an estate surveyor or valuer, a quantity surveyor, an engineer or a town planner interested in housing. Rather, a real estate developer must share some of the attributes of all of these professional or corporate individuals but he/she must be more besides them. The best definition of a real estate developer is that he/she is an entrepreneur who is committed to assuming the risks of mass housing production in advance of sale.

Ibeh (1990) identifies four categories of Real Estate Developers in Nigeria. These as shown in Figure 1 include:

i. Private individuals (non corporate)

ii. Corporate bodies registered under the respective Companies Acts e.g. Odua Investment Company; Imani Estate, and Crown Estate.

iii. Government Corporate entities established by law such as Federal Housing Authority (FHA) Lagos State Property Development Corporation (LSDPC), Ogun State Property Investment company (OPIC), Sokoto Urban Development Authority (SUDA), etc.

iv. State Ministries and Local Government Councils.

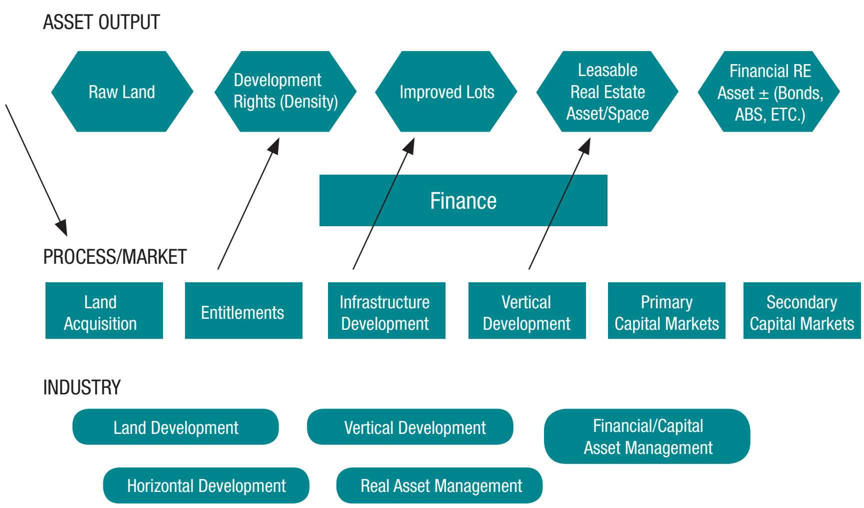
3.2 Property Development Process in Nigeria

Like in most parts of the world, the main operation of developers in Nigeria are: site selection, development appraisal, development research and design, arranging development finance, building contract/construction management and disposal of finished products. Where the economy has fully developed the real estate value chain, as shown in Figure 2, with each part of the chain well integrated, investing in real estate becomes a calculated risk but where the entire process is in disarray, investing in this sector is a big gamble. Each of the stages in real estate development poses different challenges to an average developer in Nigeria. The developer's ability to manoeuvre these challenges goes a long way to determine the success of the project.

4. The Study Approach

The survey was tailored towards assessing the operations of some selected registered residential property companies. Corporate housing developers like any other stakeholders in the construction industry in Nigeria attract a large number of entrants, as is also the case in many countries. Before 2002, there was no means of obtaining a comprehensive list of developers in any part of the country. The size was dynamic and indeterminate. It is, therefore, out of sheer luck that REDAN was inaugurated in 2002 and a comprehensive list that was used in this study was compiled. From the list of 450 companies on the REDAN list, only the 50 that have operated for 5 years and are directly involved in housing development for sale were selected. Data was collected from senior representatives of selected organisations with a structured questionnaire. Secondary data was derived from respondents' in-house publications and documentary analysis. The questionnaire was designed to collect information on REDAN members, their operations, funding, and level of accessibility to mortgage

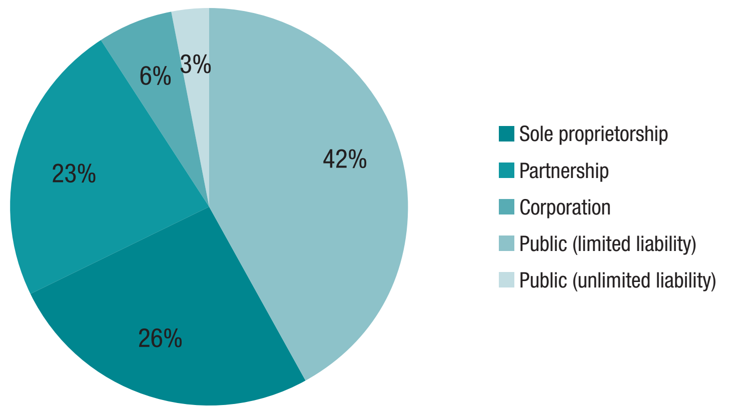
Figure 2 **Real Estate Development Value Chain**



Source: Megbelugbe 2007

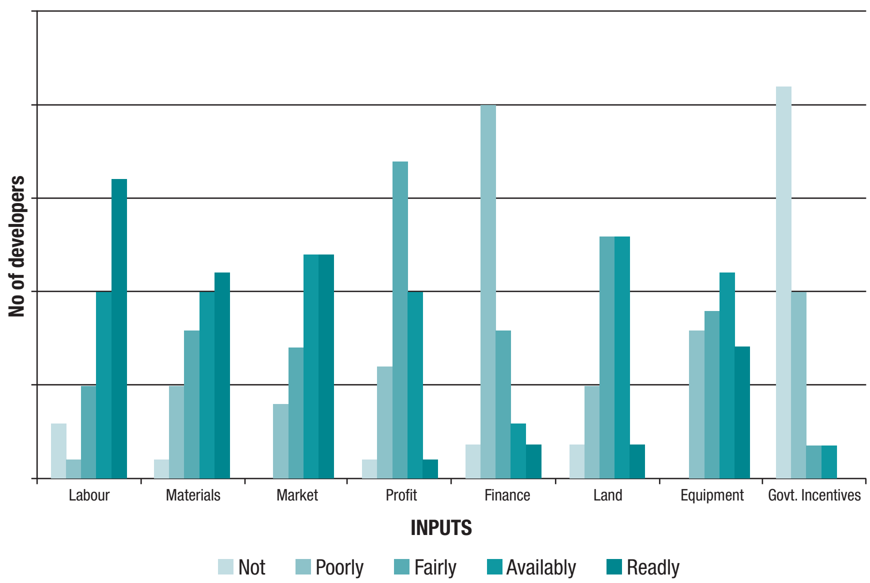
finance. The structure, capacity for growth and methods of overcoming problems, managerial style and capacity to meet customer demand was investigated to identify constraints. This was set against the governmental requirements for the private development and governmental policies on property finance. There were 20 items altogether in the questionnaire. Variables 1-7 measured the name, address and age of the organisation, category of professionals in the organization, nature of business, age of business and number and categories of employees. Variables 8-14 probed into operations and level of accessibility to factors of housing production, the number of houses, and types built. Annual turnover, source of fund, and nature of the portfolio were also measured. In relation to the problem of accessibility to finance, measurements were taken using five criteria which included: required equity, collateral, insurance, interest rate and number of years.

Figure 3 **Ownership Structure**



Source: Field Survey (Nubi 2006)

Figure 4 **Responses on Availability of Housing Construction Inputs and Motivations.**



Source: Field Survey (Nubi 2006)

5. Findings and Discussion

5.1. Nature and Operation of Real Estate Developer in Nigeria

The study revealed in Figure 3 that about 26% of the Real Estate Developers are sole proprietorships, 23% are partnerships, 6% are corporate developers, 42% are public limited liability companies while 3% are public companies. This has a lot of effect on management, volume of work and access to funding. None of these firms has more than 100 employees. In fact, almost 50% have less than 10 workers on their pay roll. Lack of permanent staff, which is caused by low volume of work and irregularity of work, often robs the company of the benefit of organisational learning. Some 60% of these organisations have no in-house experts like Architects, Civil Engineers, Mechanical Engineers, Builders, Estate Surveyors, etc. On availability of construction input presented in Figure 4 below, some 57% of the respondents claimed that finance is poorly available. This is the lowest rank amongst all other inputs, with only 5% responding that it is readily available. Land is even believed to be fairly available. On the type of houses often developed, the responses are 5% semi-detached, 7% Duplex, 13% Bungalow. About 34% high-rise and 20% block of flats and rated 21% for others. This shows a preference for housing for high-income earners and not mass housing. These are often produced on an average of less than 20 per developer per annum. The low volume of construction in this sector significantly contributes to the shortage in housing stock, high cost of housing and over concentration in high-brow neighbourhoods.

5.2 Source of Capital for Operation and House Building Activities

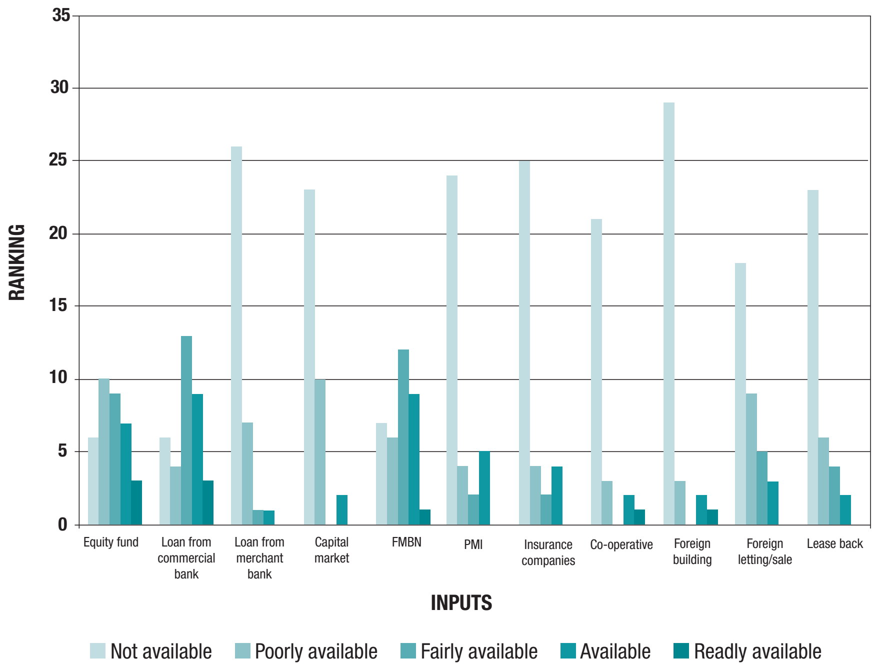
In terms of the type of houses being built, 21 (20%) build bungalows, 30 (29%) semi-detached, 28 (26%) Duplex and 14 (13%) blocks of flats were constructed. No member of the Real Estate Developer has attained more than 100 units per annum. Most developers sold less than 25 units.

On the availability of construction inputs like labour, building materials, availability of market for finished goods, profit from business, finance, land, equipment and government incentive, the responses are as follows: Finance stands out as an input that is not readily available, labour is rated as being readily available while government incentive was rated as not being available at all. Real Estate Developer also ranked the level of availability of different forms of finance for financing their housing development projects. They rated Primary Mortgage Institution very poor, but equity funding and loans from commercial banks enjoyed better rating, as shown in Figure 5 (see next page).

On factors that inhibit access to finance, particularly the developers loan facilities offered by the Federal Mortgage Bank of Nigeria (FMBN), the developers rated high interest rate (which was put at about 27% after the administrative charges had been built in) as highly problematic. Also rated as very problematic by most developers was the need to repay loans within 2 years. This is not unconnected with the limited sources of finance in the market. The predominant source today is the commercial bank as shown in the ranking in Tables 1 and 2. Commercial banks in Nigeria with their short-term deposits could only give short term loans while housing development requires long term facilities. The few loans that were given also required credit insurance or bank guarantee thereby increasing the cost of capital. Since most of the developers are not listed, they could not enjoy the opportunities that the capital market offers. This also presents the rating of demand for insurance and bank guarantee as problematic.

This is not unconnected with the depression and high rate of inflation resulting in high cost of building materials, high wage rate etc., the delay in getting the Certificate of Occupancy and running of building approvals ranking third could however be blamed on administrative bottlenecks and bureaucratic procedures.

Figure 5 Accessibility of Funds



Source: Field Survey (Nubi 2006)

5.3 Problems of Property Development Companies in Nigeria

Property development is sensitive to both micro and macro economic climate due to its poor response to change in supply or to demand, the effect of economic policies is often grievous on housing project common economic problems include:

5.3.1 Increase in Poverty Level

Poverty is a major problem in Nigeria. With about 70 percent of the population operating in the informal sector of the economy earning about $1 dollar daily, saving is almost impossible. It is not only that a robust mortgage system hinges on appreciable population with regular and reasonable income to create effective demand, but must also be able to generate sustainable long term savings that accrue to the capital market where such is eventually offered as products to home buyers and developers. The absence of this is a big constraint to the growth of the sector in Nigeria.

5.3.2 Problem of Raising Finance from the Capital Market

The capital market or secondary market is usually one of the most important sources of finance for housing development in developed economies especially where the real estate value chain has been developed. The prevalent business structure of housing developers in Nigeria prevents them from tapping into the opportunities that the capital market offers. The nation in the last five years witnessed unprecedented capital accumulation through the pension reform, with about 1.2 trillion naira ($80billion) accumulated into the Pension Fund. The pension act allows 40% of the fund to be invested in Real Estate but strictly through Real Estate Investment Trust (REIT) and Mortgage Back Security (MBS). Unfortunately this great opportunity cannot be annexed because the Primary Mortgage Bank's (PMI's) portfolios are ridiculously low with the giant among them (Union Homes) having less than 10,000 mortgages originated over a ten-year period. Only 6% of property development companies are listed on the Stock Exchange (see Figure2) hence their inabilities to neither float REIT nor go to the capital market for other products. In the absence of demand from real estate developers, approximately 80% of the fund has been invested in government bonds making the Government the sole beneficiary of the pension fund meant to develop the real estate sector of the nation's economy.

Table 1: Ranking of Sources of Finance for Housing Projects by Developers

S/No	Source of housing finance	Ranking by developers in order of significance
1	Loan from commercial bank	1st
2	Equity	2nd
3	Credit facilities from building materials supplier	3rd
4	Shares (Capital Market)	4th
5	Foreign loan	5th
6	Mortgage loan	6th
7	Gift from friends	7th
8	Loan from Thrift and Credit Societies	8th

Source: Field Survey (Nubi 2006)

Table 2: Ranking of Constraints in Housing Production Effort Developers

CONSTRAINTS	RANK
Fund shortage/high cost of fund	1st
High cost of construction	2nd
Delay in Certificate of Occupancy and building plan approval	3rd
High cost of building materials	4th
Land acquisition problem	5th
Route of infrastructure	6th
Manpower shortage	7th
Government Policy (LUA ETC.)	8th
Poor demand	9th

Source: Field Survey (Nubi 2006)

5.3.4 Galloping Inflation on Estimated Project Costs

According to Windapo and Iyagba (2001) and Nubi (2006), approximately 60% of the building materials in Nigeria are imported. Since the prices of these materials are subject to the exchange rate of other foreign currency, which changes almost daily, construction cost and house prices remain unpredictable. Many projects in Lagos and Abuja have being abandoned while many companies have gone into liquidation because of their inability to cope with the uncertainty of the market. Also, some developers that built to capture the high-income market have difficulties in disposing of the few houses built.

5.3.5 High Cost of Capital

Most of the developers interviewed expressed their awareness of the availability of fund in the capital market (see Figure 5) but it was ranked fourth as a source of funding while loans from commercial banks was ranked first. Long-term loans are usually not favoured by the commercial banks in Nigeria due to the short-term nature of their deposits. The best term any developer can get from these banks is four years. Funding a long-term investment with short-term fund with no possibility of take out finance is generally believed to be a mismatch. This mismatch has a far-reaching implication on the cost of capital. The short-term loans are usually more expensive in Nigeria with interest rates usually between 35% and 45%. This high interest rate on capital has not only killed real estate projects in Nigeria but, also, the borrowers. Despite the abysmal interest rate the banks also demanding about 20-30% of the value of the loan as deposit and always insist on collateral of equal value of the loan.

5.3.6 Access to Land

Land is a major input in property development. The cost of acquisition and documentation as well as its administration is essential to property development and financing. From simple holding in traditional settings, land holding has become a complex system in the 20th and 21st century in Nigeria. The land in any state in Nigeria according to the Land Use Decree of 1978 is vested in the governor who holds it in trust for the people. Ownership or use of urban land requires the governor's endorsed Certificate of Occupancy [C of O], or Governor's consent for any transaction including mortgages, while rural land requires a Statutory Right of Occupancy issued by Local Government Chairman. It is the prerogative of the governor to determine the extent of urban land in the state that will require his consent or C of O. The Land Use Decree of 1978 and other regulatory policies have created serious problems for residential property development in Nigeria. Among these problems with direct and indirect implications on housing finance are:

- High cost of land which ranges from N5 million ($30,000) to N500 million ($1.8million) between Epe, Ikorodu, Ikeja, Ikoyi in Lagos, Abuja, Port Harcourt, Warri and Kano.
- Delay on the part of states to issue Certificate of Occupancy.
- High consent charges for transfer of interest. These include fees payable as professional fees, stamp duty, capital gain tax and registration charge. These are usually more than 50% of land value (Nubi 2001).
- Dual payment for land, first to the landowner called 'omo onile's' and secondly to the government for registration of title.
- Endless court injunctions over ownership, which often delay projects for years. When ownership is effectually determined, the developer could be ordered off the site thereby loosing huge investment. Unfortunately, a Certificate of Occupancy issued by the governor does not confer ownership, but the root of title as determined by the court.
- Non recognition of private property development companies in the Land Use Act of 1978 which limited large land holding to agricultural use alone
- Political insecurity of the Certificate of Occupancy due to Governors power to revoke allocation.
- Since the act conceded the land to the state, compensation after revocation is limited to the development on such land excluding the residual value of the land. The statutory valuation method in this case is Cost of Replacement, which ignores the land value. Compensating only for physical development on land in accordance to the decree creates a disincentive to investment especially in areas where land alone is worth millions of Naira.

5.4. Managerial/Entrepreneurial Constraints

The real estate developers in Nigeria often experience high labour turnover and high-level filtration of qualified manpower and labour to other more attractive employment sectors such as banking/finance industry. This can be attributed to the low volume of projects, which trickles in seasonally. Most developers are idle for most part of the year or for some years and building teams are often put together when there is a project to be executed and quickly disbanded as soon as the project is completed. Managerial and entrepreneurial advancement are also impeded by increased entrepreneur risk due to the volatile nature of the Nigerian economy. This is exacerbated by the fact that most companies are sole proprietorships and family businesses disallowing the development of sound management structure devoid of the owner's interference.

6. Conclusion

In Nigeria today, the private sector controls about 70 –90% of total housing stock. However, private individuals who build incrementally at informal level causing multiplication of substandard housing, housing collapse and slum, dominate the private sector. This has contributed to the shortfall in housing supply, as this does not allow for housing industrialization and the benefits accruable from scale of production. The only way out of the housing dilemma is industrialisation and privatisation of housing which can only be achieved through the re-engineering of housing development companies. Taking a cue from the banking sector, development companies should be made to recapitalize, go into merger and finally go public to take advantage of the growth in the capital market and create access to the international market.

From the study, it is clear that the problems facing the property development companies in Nigeria are complex. The significance of their contribution to national housing stock cannot be disputed. They should therefore be encouraged to deliver more housing units to the nation. This study has hence suggested a number of useful remedies to activate their operations. This sub-sector should be equipped and supported to meet the housing deficit, especially the one created by the Government's withdrawal from the direct construction of houses:

- The growth of the Pension Fund to over 1trillion Naira in the last four years is unprecedented in the history of capital accumulation in the country. The Pension Fund Act allows 40% of the Fund to be invested in Real Estate Sector. But this can only be through Bond, Mortgage Back Securities (MBS) and Real Estate Investment Trust (REIT). It is unfortunate that government is yet to give legal support to these instruments. This should be done without further delay;
- Amendment of the Land Use Decree, especially the controversial and regressive sections e.g. sections on revocation, acquisition and compensation, lease holding and Governor's Consent;
- The use of a geographical information system – computer software for land and property management to remove the existing bottleneck in the processing of Certificate of Occupancy process and transfer of right in land.;
- Providing land to real development companies at encouraging terms;
- Subsidising infrastructure costs of development companies, including water, electricity, telephone and roads;
- Compulsory housing loans to staff of medium and large companies to boost demand for development properties;
- Removing tax on mortgage repayment to encourage and boost demand for house purchase;
- Reducing of construction costs and encouraging a better building industry through housing standardisation, mass construction to enjoy the advantage of economy of scale, promotion of local building materials and mobilising end users into Cooperatives and Associations;
- Creation of a business environment that is friendly to aspiring real estate investors;
- Need for regular census to have statistics of housing stock;
- Implementation of the 1991 National Housing Policy; and
- Government should embark upon affordability gap financing to ensure spread and marketability of the houses developed.

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Northern Ireland's Housing Market:

The Prospects for Recovery, the Role of Mortgage Markets and the Perspective in an Era of Public Expenditure Constraint

By Joe Frey and Paddy Grey

For many years Northern Ireland's housing market was constrained by the economic uncertainty and commensurate lack of investor confidence which accompanied the era of political conflict which euphemistically came to be called the "Troubles". Indeed, during the 1970s and in the early 1980s Building Societies had a policy of "red-lining" certain areas of Belfast and other towns: no mortgages were to be given for dwellings located in these areas regardless of the circumstances of the mortgage applicants. As a result, for example, the leafy suburbs of middle class North Belfast which was situated close to some of the major flashpoint areas went into serious decline. With the onset of the "Peace Process" in the early 1990s things began to change dramatically. This article begins by examining the key factors behind the transformation of Northern Ireland's housing market from one characterised by lack of investor confidence to one characterised by the greatest level of "irrational exuberance" of all regions of the United Kingdom. On this basis it looks at developments and issues for each of the three housing tenures. Developments in the mortgage markets are seen as a critical factor in normalising the both the owner-occupied and private rented sectors, but the speed of recovery will undoubtedly be a reflection of the severity of the expected reductions in public expenditure.

Northern Ireland's Housing Market and the 'Peace Process'

Policy makers and academics have tended to disagree to a certain extent on the relative importance of the, undoubtedly interconnected, 'Peace Process' in Northern Ireland[1] and more general economic factors – such as rising incomes, the growth in Government spending and the deregulation of the mortgage markets – in causing the boom in Northern Ireland's housing market (Gibb et al, 2007; Paris, 2008; NIHE, 2006). What is incontestable, however, is that in the mid-noughties Northern Ireland experienced the fastest rate of growth in house prices of any region of the UK. Between 2006 and 2007 average house prices rose year-on-year by 36 per cent. Indeed between quarter 3, 2006 and quarter 3, 2007 average house prices rose a staggering 51 per cent. Instead of its more traditional position as having the lowest average house prices in the UK, these increases culminated in Northern Ireland having the second highest average regional house prices in the UK[2] after London (Wilcox, 2008).

House prices in Northern Ireland had also grown at a faster rate than in the Republic of Ireland, where Ireland's 'Celtic Tiger' economy had for the best part of a decade been bolstered by unprecedented house price growth. Between 1994 and 2004, the average price for a new house nationally increased by 243 per cent, while the average price for a second hand house increased by 322 per cent (Drudy and Punch, 2005). The Permanent TSB/ESRI house price index shows that average house prices in Ireland increased by 51 per cent over the four year period between 2002 and 2006 (Adair et al 2009) in contrast to Northern Ireland where this rate of increase took only twelve months!

The second and related development in Northern Ireland's housing market was the exceptionally rapid and accelerating growth of the private rented sector (see Table 1). Between 1996 and

Table 1: Northern Ireland's Housing Stock by Tenure, 1996-2006

	1996 (%)	2001 (%)	2006 (%)
Owner-occupied	381,200 (63.3)	432,300 (67.0)	468,860 (66.5)
Privately rented	38,000 (6.3)	49,400 (7.6)	80,870 (11.5)
Housing Executive	141,200 (23.4)	116,000 (17.9)	93,440 (13.3)
Housing assoc.	13,000 (2.1)	17,900 (2.8)	21,530 (3.1)
Vacant	29,100 (4.8)	31,900 (4.9)	40,300 (5.7)
Total Stock	**602,500**	**647,500**	**705,000**

Source: NIHE, 2008, Table 3.1

[1] The 1998 Agreement (popularly known both as the 'Belfast Agreement' and the 'Good Friday Agreement' signed by the Governments of both the United Kingdom and the Republic of Ireland is seen as the formal start of the era of greater political stability. However, inter-governmental negotiations with representatives of the leading paramilitary organisations had been taking place since the 1980s: something which makes it difficult to establish any sort of direct correlation between the 'peace process' and a more buoyant housing market.

[2] In 2007 the average house price for the UK as a whole was £223,405. Only Greater London, the South East and South West had higher average regional house prices (Wilcox, 2008:143, Table 47a).

2001 the number of privately rented dwellings grew by 30 per cent; between 2001 and 2006 the corresponding five-year increase was 64 per cent. By 2006 there were almost 81,000 (11.5%) privately rented properties in Northern Ireland, reflecting the supply and demand side factors highlighted by Brown et al (2007). Indeed if vacant properties, which were part of this sector when previously occupied[3], are included, this figure rises to 94,600 (13.4%).

Brown et al (2007) identified three key factors in this process: firstly, the rapid increase in house prices making it increasingly difficult for first time buyers to enter owner occupancy; secondly, the low rate of construction in the social sector combined with the ongoing sale of a significant number of social dwellings through Right to Buy, making it more difficult for applicants for social housing to be allocated a suitable home; and finally, a combination of the availability of equity in existing homes and the expectation of continued increases in house prices providing private landlords the opportunity of not only a rental stream, "but more importantly good capital appreciation over a short time period" (ibid.:8). A further factor, which became important from 2004 onwards, was the rapid increase in the number of migrants from outside the UK and the Republic of Ireland which took place following the accession of eight Central and Eastern European countries to the European Union (the A8 countries) in May 2004[4], as most migrant workers initially enter the private rented sector (Phillimore, 2008; NIHE, 2009).

A number of other important trends in Northern Ireland's housing market are apparent from the table above. Firstly, the levelling off of the proportion of the stock in owner-occupation between 2001 and 2006, as first-time buyers found it more difficult to purchase a home, and the propensity for international migrants to become private tenants (NIHE, 2006); secondly, the decline in the number and proportion of social dwellings, primarily as a result of the Statutory House Sales scheme[5].

The Growth of the Private Rented Sector

Brown et al (2007) have quite correctly highlighted the most important key factors which precipitated the accelerating change in tenure structure since the start of the new millennium. However, research commissioned earlier by the Northern Ireland Housing Executive (Gray et al, 2007) highlighted that the private rented sector had been growing steadily since the early nineties. They distinguished between supply side and demand side factors. On the supply side, factors centred on its attractiveness in investment terms: property was generally seen as a safer investment when compared to the stock market which had experienced serious volatility since the collapse of the dot.com boom in 2000; the steadily increasing house prices promised substantial capital gains to landlords; the relatively low interest rate environment encouraged and facilitated further increases in investment.

On the demand side the Gray et al increase highlighted the emerging affordability problem for first time buyers; the increase in the number of students; the increase in standards in the private rented sector and the vital role played by Housing Benefit in fuelling demand for accommodation in this sector. Difficulty in accessing social housing strengthened demand as the reduction in Housing Executive stock (the main provider of social housing in Northern Ireland), principally though the house sales scheme, and the increasing backlog between what was seen as the need for new social housing and its actual delivery contributed to rising waiting lists for social housing. The private rented sector on the other hand offered much easier access to areas such as high demand social sector estates (where indeed sold Housing Executive dwellings have often re-emerged in the private rented sector) and owner occupied areas, in particular where lower cost new build developments have been undertaken.

A similar growth trend was also experienced in the private rented sector in the Republic of Ireland. The widespread sale of social housing to tenants, particularly in the 1980s and 1990s at levels far exceeding that under the UK's Right to Buy policy, coupled with the abandonment of any significant new social housing programme in this period, had ensured that the social housing sector declined to 7 per cent of the housing stock by 2006 and its marginalisation as a tenure. In the face of a significant increase in demand for housing the Irish state was left with little choice but to seek options in the private rented sector for housing marginal groups. The discourse of Government policy, which had focussed on home ownership began to refer to the private rented sector in the context of its role in ensuring the success of the economy by contributing to mobility (Department of the Taoiseach, 2000). From 1997 onwards the sector expanded both in absolute and in comparative terms and by 2006 it provided accommodation for 13 per cent of all households. Moreover the numbers in receipt of state benefit for housing purposes increased proportionately, so much so that by 2005 those in receipt of rent supplement - an income support payment to cover housing costs in the sector - rose to 40 per cent of the private rental market. As in Northern Ireland, the phenomenal growth in house prices also encouraged investors buying property to rent. The Affordable Homes Partnership points to the fact that this had a substantial impact on house prices, which rose faster than economists estimated could be supported by the pattern of mortgage based purchases enabled by household incomes. House prices were fuelled by the ability of investors to purchase at higher prices because of their 'deep pockets'. It also makes the argument, however, that there was a traditional cultural propensity in Ireland to see great value in investing in property; this, in turn, was encouraged by the very robustness of price rises continuing up until the recent downturn. Investors believed that price rises provided a return on whatever they were paying. (Affordable Homes Partnership, 2007)

The Owner-Occupied Sector

Until the start of the new millennium, the growth of owner-occupation could be seen as the defining characteristic of Northern Ireland's housing market since the 1970s. This was no different to developments in the rest of the United Kingdom. A number of studies have mapped the growth of this sector of the market. Paris et al (2003) highlighted how home-ownership boomed in Northern Ireland in the 1990s, growing to around 72 per cent of all occupied stock by 2001, noting that this was on a par with Wales and ahead of England and Scotland. Paris et al considered that the increase in home-ownership was assisted by the high volume of sales of Housing Executive dwellings under the Statutory House Sales Scheme which as with the Right to Buy in Great Britain had its roots in a major shift in emphasis in housing policy, which increasingly saw the private sector as the main provider of housing for lower income households. Indeed Paris (2001) notes that in Northern Ireland the sale of Housing Executive dwellings resulted in a significantly higher proportion of the social

[3] In the case of vacant dwellings, surveyors undertaking the NIHCS are asked to record the tenure of the dwelling when last occupied (NIHE, 2008).

[4] Beatty et al (2006) estimate that between July 2004 and June 2005, net international migration accounted for an additional 4,671 persons in Northern Ireland.

[5] More than 20,000 Housing Executive dwellings were sold between 2001 and 2006 (NIHE, 2009a)

sector stock that had been sold to sitting tenants compared to England, Wales or Scotland.

The Northern Ireland Housing Market: Review and Perspectives report (Housing Executive, 2010) summarises the key factors underlying the steady growth in owner occupation as follows: "Owner occupation grew steadily in Northern Ireland in the second half of the twentieth century encouraged by a range of government policies. These included tax relief on mortgage interest, reductions in "bricks and mortar" subsidies for the construction of new social dwellings, rent increases in the social sector and in particular, after 1979, the generous discounts to tenants in the social sector wanting to purchase their home. In the early years of the new millennium owner occupation continued to grow: a low interest rate environment helped counteract the growing disparity between the typical income of first-time buyers and rising house prices" (p.65).

However, the 'Review and Perspectives' document highlights that for the first time in Northern Ireland's recent history there has been a reduction in both the number and proportion of households now living in owner-occupation[6]. The report highlights that in 2001 there were approximately 432,000 owner occupied dwellings in Northern Ireland (66.8% of the total stock). By 2006 the figure had grown to 469,000, but the proportion had remained roughly the same (66.5% of the total stock; 69.6% of the occupied stock). By 2009, however, the number of owner-occupied dwellings had fallen to 461,000 (62.3% of the total stock; 64.9% of the occupied stock).

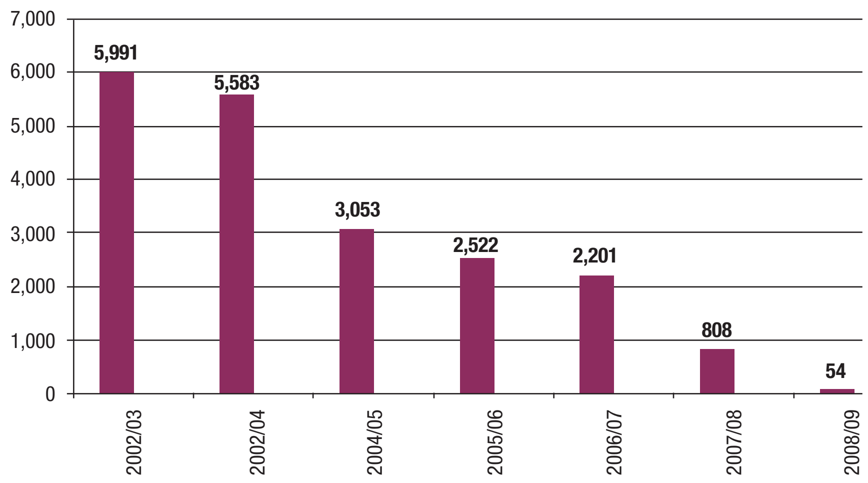
The 'Review and Perspectives' gives the rapid decline in the number of Housing Executive dwellings sold between 2005 and 2009 as one important reason for this. The House Sales Scheme has been identified in several sources as being a major stimulus to home-ownership in Northern Ireland. The Statutory House Sales Scheme (the equivalent to RTB in Great Britain) had been introduced to Northern Ireland in line with similar policies introduced in the remainder of the UK. At that time local authorities in Great Britain had been pursuing the policy on a voluntary basis throughout the 1970s because they were concerned that tenants doing well and on the threshold of home ownership would either leave estates or move to the suburbs as they could not buy the house they were in. They were already recognising that in some localities there was not enough owner-occupation to meet local market requirements and for them selling council houses was a strategic tool. From an ideological perspective the government pursued the policy in its drive to increase owner occupation as the preferred tenure and to reduce the domination of council housing.

The Housing Executive began selling off houses in the mid 1970s when it obtained approval for the sale of particular categories of property (Murie 1992). These policies were further developed in 1979 to operate broadly in line with the 1980 Housing Act in Britain when the Housing Executive introduced a voluntary House Sales Scheme in 1979 and although a formal Right to Buy (RTB) scheme was introduced under the Housing (NI) Order 1983, all sales to tenants of the Housing Executive were completed under the voluntary scheme as opposed to the formal RTB legislation. Both schemes continued to be available to NIHE tenants until the early 1990s when the Housing (NI) Order 1992 replaced the RTB with a provision that the Executive shall prepare a scheme for the sale of houses to secure tenants and submit this to the Department for approval[7].

In the context of more than 100,000 purchases under the House Sales Scheme during the period 1979-2003, the Housing Executive commissioned a major study of the Scheme (McGreal et al, 2004). The research provided clear evidence for the popularity of the scheme with policy makers and the public: the Scheme has directly contributed to the widening of home ownership and promoting tenure choice; the Scheme has generated considerable capital receipts to support other important Housing Executive capital investment; purchasers have experienced an appreciable uplift in the value of their property, gaining from the wider increases in capital values for the housing market in general and more specifically the narrowing of the price gap between former Housing Executive and private property on the open market; in the resale market former Housing Executive properties often provide an affordable option particularly for first-time buyers; the House Sales Scheme has promoted major social – and in some instances physical – change as particular housing estates have altered in character, the shift in tenure from public to mixed estates has improved the image of many housing estates; there is little evidence of former tenants not being able to sustain home ownership or maintain their properties.

However, since 2003 there has been a dramatic decline in the number of house sales, reflecting the introduction of major revisions to the House Sales Scheme, in particular the reduction of the maximum discount to £24,000 and the substantial increases in house prices between 2004 and 2007. In 2008/09 only 54 were sold (see Figure 1).

Figure 1 Housing Executive Sales Completed, 2001-2009



Source: NBS, 2009; figures prepared by authors.

[6] The most recently available figures for England, Wales and Scotland are for 2007 (Wilcox, 2009: Table 17a-d)) indicate that in England the proportion of households in owner-occupation fell from a hoihpoint [???] in 2004 (70.3%) to 69.6 per cent. In Wales and Scotland this proportion has not yet fallen below its highpoint

[7] Under this statutory scheme tenants, after a short period of residence, would automatically receive a 30% discount with 1% added for each year of tenancy up to the maximum of 60% for houses and 70% for flats. Over the early years of the scheme rules were relaxed further by allowing relatives to purchase with the tenant if they were living in the dwelling and the shortening of the qualifying period

Declining sales of social dwellings has been one important factor in the decline of owner-occupation in Northern Ireland but "the effects of a combination of unsustainably high house prices and levels of personal debt, the continuing reluctance of lenders to significantly relax their mortgage criteria, growing uncertainty in the labour market have meant that younger households, in particular, are finding it increasingly difficult to purchase their first home and are therefore choosing to either remain in the parental home, return to the parental home (the so called "boomerang kids") or to enter, or remain in, the private rented sector for longer periods (Housing Executive, 2010). The Housing Executive accepts that it is difficult to know to what extent this is a short-term trend which may change as the effects of the "credit crunch" work their way through the system. However, it envisages that at least the proportion of dwellings in owner occupancy will remain static over the next three to five year period.

Rising House Prices and Affordability

Northern Ireland's housing market has been analysed by the University of Ulster since 1984. Its Quarterly House Price Index report is based on this mix-adjusted analysis of a robust sample of open market transactions. The actual index was baselined at 100 for the final quarter of 1984 and reached 549 in the final quarter of 2005. For the purposes of analysis, Adair et al (2006) divided this time series into two time periods: from 1984-1994 and 1995 to 2005. House price change during the former period was characterised by a flat profile – there was typically a nominal increase in house prices in line with the Retail price Index but in real terms house prices remained static. In contrast, the period from 1995 to 2005 was been characterised by highly buoyant market conditions with the house price index rising at a considerably faster rate than the RPI and at the end of 2005, annual price growth was around 20 per cent and the average house price approximately £146,000.

Adair et al (2006) attributed this growth partly to the low base (the lowest of all regions in the UK) from which Northern Ireland started in 1994, but also to a series of drivers which combined to drive house prices upwards: demographic growth, macroeconomic conditions in the UK, a local NI economy which experienced strong growth, the spill-over effects of the Celtic Tiger economy in the Republic of Ireland, low mortgage interest rates over a lengthy period, the competitive mortgage market, the growth of the financial services sector, the influence of investor activity in the market, the shift from public to private provision, the second-home phenomenon and the 'Peace Process'. Paris et al (2003) highlighted that house prices in Northern Ireland had fallen behind Great Britain during the 1980s. Northern Ireland did not experience the boom of the late 1980s, but likewise escaped the devastating effects of the housing crash of the early 1990s. This lack of downturn experience may go some way to explaining why in Northern Ireland the house price boom of the mid-noughties took on such an extreme form.

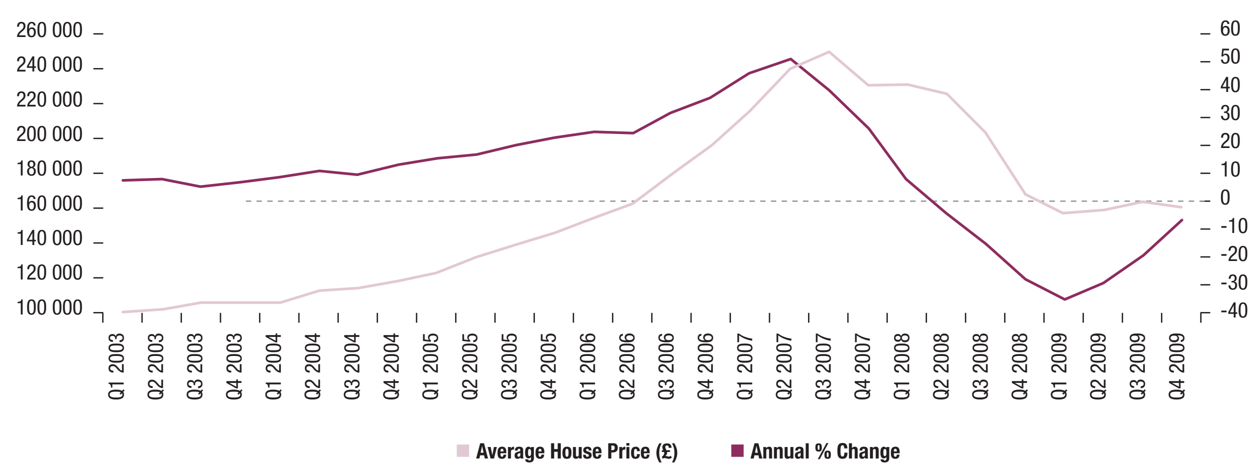
From early 2006 house price increases in Northern Ireland took on an increasingly unsustainable character. Figure 2 shows that average house prices rose at an annual rate of 25 per cent in quarter 1, 2006 to reach a highpoint of 51 per cent in quarter 2, 2007. The actual average price peaked during the following quarter at £250,586 before tumbling rapidly to £156,857 in Q1, 2009 – a peak to trough decline of 37 per cent.

With hindsight it is difficult to comprehend why house prices became so unsustainable. The Housing Executive's commentary on the University of Ulster's house price data for quarter 3, 2006 contained the following clear warning to investors and buyers alike a year ahead of the inevitable slump in the market: "Northern Ireland's housing market is overheating. Annual average price increases of more than 30 per cent are simply unsustainable, even in the medium term. The big question only remains when the downturn will come, and how sudden and severe it will be".

The only rational explanation for this is the short-sighted approach taken by the overwhelming majority of those involved in the housing industry, from lenders, developers, estate agents and lawyers on the one hand to investors eager for quick capital gain and existing purchasers who welcomed the increase in their purchasing power through equity release on the other. First time buyers however, found it increasingly difficult to gain a foothold on the ladder of owner-occupancy. Indeed a common thread running throughout the first decade of the new millennium was the issue of affordability for first time buyers.

This issue had already been brought to the attention of the Northern Ireland Housing Executive by

Figure 2 **NI Average House Price: Quarterly 2003-2009**



Source: University of Ulster, House Price Index elected representatives in the Northern Ireland Assembly in a debate on 26th September 2000. The Assembly noted "with concern the growing crisis in the availability of affordable housing and urges the Minister for Social Development to bring forward proposals to address this issue". These concerns lead the Housing Executive to commission a study on affordable housing from the Universities of Ulster and Birmingham (McGreal et al, 2001). This research showed that although affordability at that time was not a widespread problem - primarily due to the low interest rates and the availability of an increasingly flexible range of mortgage products - there were already signs that it was an emerging issue for first time buyers, particularly in Belfast and its commuter belt.

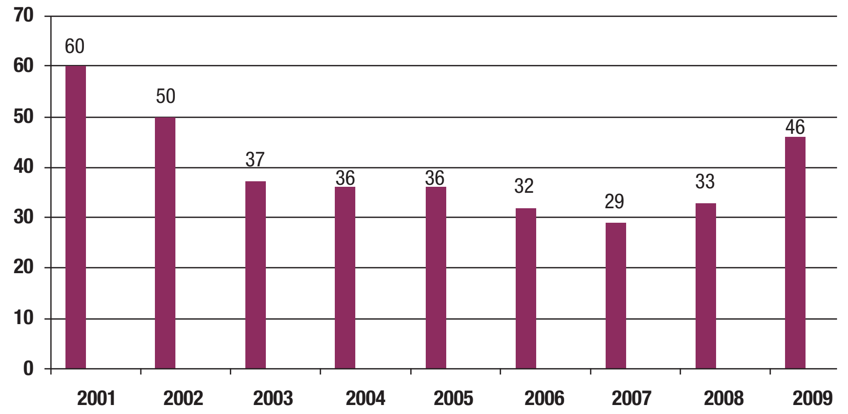
Since that time as house prices rose – and later fell - a number of indicators have confirmed the ongoing difficulties experienced by first time buyers. The most recent Review and Perspectives document (NIHE, 2010) highlights:

- The Council of Mortgage Lender's ratio of median income to median advance in Northern Ireland was 2.36 in 2001. This ratio rose to a peak of 3.51 in 2007 and only fell back to 3.26 in 2009.
- The number and proportion of first-time buyers (see Figure 3). In 2001 there were some 18,000 first time buyers in Northern Ireland, who purchased 60 per cent of house sales. By 2006 this had fallen to 8,700 (32% of total sales) and in 2008 only 2,900 (33% of total sales) went to first time buyers. However, in 2009 there were 4,600 mortgage based sales to first time buyers (46 per cent of the total) indicating the start of a return to more normal conditions.
- The proportion of lower priced homes (see Figure 4). At the start of 2001 more than two-fifths of all homes were sold for less than £150,000. At the peak of the housing boom in 2007 this proportion had fallen to almost zero. However, in each of the four quarters in 2009 approximately one fifth of all homes sold cost less than £150,000.

Looking at the sharp drop in house prices in Northern Ireland since 2007, the continuing low interest rates and the increasing proportion of first time buyers may give the impression that the situation for first time buyers in Northern Ireland has dramatically improved over the last two years. From the point of view of prices and interest rates there is no doubt that the situation has improved dramatically – and will continue to do so as interest rates and prices are expected to stay low. However, the challenging economic climate, which will be compounded by the expected severe cuts in public expenditure (which finances approximately two-thirds of Northern Ireland's GDP) is reflected in lenders' continuing reluctance to provide new mortgages where there is a higher risk of default. Lenders are continuing to protect themselves by generally ensuring much lower loan to value ratios. The result is that instead of 100 per cent or 95 per cent loans for first time buyers being commonplace as they were in 2006 and much of 2007, a 20 per cent deposit, or indeed 40 per cent is often required if first time buyers want to benefit from the lowest interest rates.

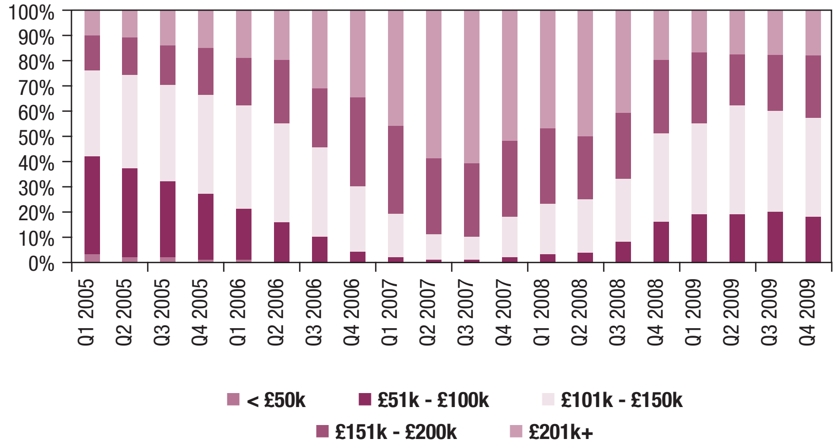
This more difficult mortgage market environment is reflected in key figures emerging from an analysis of CML's mortgage lending figures for Northern Ireland. At the start of the new millennium there were approximately 28,800 mortgage based sales in Northern Ireland. 17,300 of these (60%) went to first time buyers, with a median advance of £48,000, a median income of £19,968, a median percentage advance of 90 per cent and an income multiple of 2.36. At the height of the house price boom (2006) the number of sales was approximately the same: 28,000, but only 9,000 (32%) of these went to first time buyers with a median advance of £95,600, a median income of £28,700, a median percentage advance of 85 per cent an income multiple of 3.19. By 2009, following the sharp downturn the picture had changed again: there were only 10,100 mortgage based sales in total, of which 4,600 (45%) went to first time buyers with a median advance of £95,349 and a median income of £28,968 and a median percentage advance of only 76 per cent and an income multiple of 3.26. Proportionately the number of first time buyers has risen, but the amount typically advanced remains approximately the same as in 2006. However, the income multiple remains higher than in 2006 and the percentage advance has dropped significantly, reflecting mortgage lenders ongoing caution.

Figure 3 NI: Proportion of House Sales to First-Time Buyers, 2001-2009



Source: Council for Mortgage Lenders.

Figure 4 NI: Proportion of Transactions by Price Band, 2005–2009



In the Republic of Ireland, where the downturn began almost a year earlier than in Northern Ireland, the average house price fell by 9.1 per cent year on year to the end of December 2008 according to the Permanent TSB/ESRI index. More recent figures show that prices have plummeted a third since the property bubble peak, but the rate of decline eased considerably in early 2010. Average house prices stand at 234,000 euro nationally - down 33 per cent on prices experienced at the height of the housing boom in 2007. (Belfast Telegraph 7th April 2010).

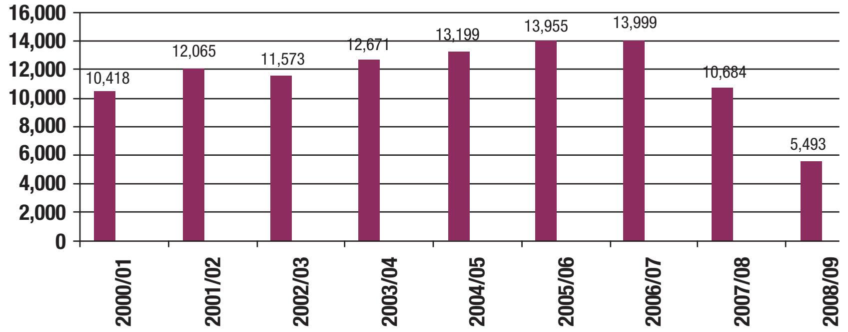
The downturn in the residential markets allied with the limited availability of credit and tightened lending criteria have also contributed to a dramatic fall in both transactions and development activity. According to Adair et al (2009) the correction in the housing market pre-dates that of the UK, including Northern Ireland. According to figures compiled by the Permanent TSB/ESRI, house prices in the ROI peaked in January 2007 at €311,078. The authors argue that in the view of many leading economists the rate of house price growth in ROI could have been justified up until 2005. It was towards the end of 2005 that evidence began to emerge that the market was in danger of overheating, but rather than undergoing the minor correction that many had anticipated, further relaxation in lending criteria meant that house prices actually increased by a further 16% over the course of 2006. The underlying fundamentals of the market did not support such a growth. (Adair et al, 2009).

Table 2: Household Projections by Size of Household 2006 - 2021

	2006 No + % of Total		2021 No + % of Total		Percentage increase/ decrease in number +/-%
1 Person	199,000	(30%)	272,000	(34%)	+37%
2 Person	195,400	(29%)	248,400	(31%)	+27%
3 Person	107,000	(16%)	109,800	(14%)	+3%
4 Person	94,200	(14%)	92,800	(12%)	-1.5%
5+ Person	77,000	(11%)	75,300	(9%)	-2%
TOTAL	672,600	**100%**	798,300	**100%**	+19%

Source: NISRA, Household Projections, 2008

Figure 5 New Housing Construction in the Private Sector 2000-2009



Source: DSD, Housing Statistics 2008/09.

Future Drivers of the Market

In examining the future of Northern Ireland's housing market, it is important to re-examine some of the important underlying drivers. Gibb et al (2007) provided a comprehensive analysis of Northern Ireland's housing market, which illustrates the complexity of the factors involved and emphasises the importance of inter-tenure relationships. They focus initially on demographic factors stating that "housing demand is determined by the rate of household formation, which in turn reflects changes in population size and household structure" (p.37).

The biennial projections produced by the Office for National Statistics are a critical data source for assessing the future demand for housing. The most recent projections for Northern Ireland (2008 based) were published in October 2009. They indicate a number of important changes in Northern Ireland's demography over the 10 year period to 2018:

- The population is projected to increase from 1,775,000 in 2008 to 1,896,000 in 2018.
- The number of people of pension age is projected to increase from 296,000 in 2008 to 324,000 by 2018, an increase of 9 per cent.
- The number of people aged 75 and over is projected to increase by 34,000 (30%) from 113,000 in 2008 to 147,000 in 2018.

For the housing market, the rate of household formation is of more significance than population growth per se. The most recent household projections are for the period 2006 – 2021 (see Table 3), indicate there will be an additional 125,700 (19%) households in Northern Ireland, primarily due to population growth (65,000 additional households), but also due to the changing age structure (34,000) and the continuing trend towards smaller households (26,000). Average household size is projected to fall from 2.55 in 2006 to 2.36 in 2021.

Table 2 also indicates the expected significant increases in the number and proportion of one and two person households, and, conversely, small reductions in the number and proportion of households with four and five or more persons.

For the housing market this means an increasing number and proportion of one and two person households, but more importantly a steady rise in the number and proportion of pensioners, and in particular the rapid growth in the number of people aged 75 or more. This has important implications for not only the design of dwellings, but also for housing support funding and care packages which are needed to enable these pensioners to live independently and comfortably in their own homes and new mortgage products, including equity release products needed to replace the expected decline in the public funding available to support older people as their dependency rises.

The Construction Industry

There is no doubt that the construction industry in will continue to face huge challenges. Northern Ireland, in parallel with the rest of the United Kingdom and the Republic of Ireland has experienced a sharp downturn in the construction of new dwellings in 2007 and 2008. Figure 5 shows that between April 2007 and March 2008 approximately 10,700 new private sector dwellings were started, a 24 per cent reduction on the previous year. Between April 2008 and March 2009 only 5,500 new private sector dwellings were constructed dwellings, a further reduction of almost 50 per cent. Figures for the first six months of 2009/10 indicate that the number of new homes started has risen from 2336 to 3804. Nevertheless, this still represents a rate of development not seen in Northern Ireland since the early 1990s.

The Future of the Private Rented Sector

The private rented sector continued to grow rapidly between 2006 and 2009. Following a lull in activity after the autumn of 2007 when the housing bubble burst, substantial falls in house prices have re-activated investors' interest in the market. The preliminary finding emerging from the Northern Ireland House Condition Survey show that there are now approximately 125,000 dwellings in the private rented sector – around one in six of all dwellings (a higher proportion than in England Wales or Scotland).

Rising waiting lists for social housing and affordability issues for first time buyers as a result of the ongoing caution by lenders, together with changing labour markets, will ensure that the private rented sector will continue to play an increasingly important role in Northern Ireland's housing market, and indeed will increasingly meet the needs of households, who in the 1980s and 1990s may have had their housing needs met by the social sector.

The Department for Social Development issued its Building Sound Foundations: A Strategy for the Private Rented Sector in May 2010. The strategy is guided by a vision of a "professional, well managed, service driven sector, grounded in high standards and good practice". It focuses on proposals to overcome aspects of the private rented sector which currently make it less attractive to people in housing need, thereby offering greater choice in particular to households who traditionally would have entered the social housing sector. From the point of view of landlords, perhaps the most important change will be the requirement for all landlords to be registered. However, from the standpoint of the market as a whole there is no doubt that this represents a policy commitment by Government to further promote the private rented sector, thereby ensuring its viability and indeed probable expansion into the foreseeable future.

Conclusion

Northern Ireland's housing market now appears to have stabilised following a two year housing recession. Nevertheless its future health is very dependent on developments in the world economy where the strength of the recovery from a very sharp and protracted recession appears fragile and the risk of a double dip recession in many countries appears to be growing. In the context of the UK the challenges faced by Northern Ireland's housing market are compounded by high levels of consumer debt and expected sharp reductions in Government spending in the coming three years. Developments in the Republic of Ireland - which experienced a longer period of growth and a sharper downturn – are increasingly impacting on Northern Ireland, not only as the shoppers who came North when the euro was stronger are starting to dwindle, but more importantly as the National Asset Management Agency set up by the Government of the Republic of Ireland in response to the Irish banking crisis, estimates that there is approximately €5 billion worth of toxic loans secured on land and property in Northern Ireland which is now worth much less than its paper value.

In Northern Ireland, households are also facing the combined effects of an ongoing decline in its manufacturing base, significant reductions in public expenditure, a rising level of indebtedness, higher fuel and food prices and increases in local taxation. Banks and building societies are continuing to be more cautious in their approach to lending – particularly to first time buyers and small businesses. Although interest rates are destined to remain low for the foreseeable future, the most likely perspective for Northern Ireland's housing market will remain flat for at least the next year, as first-time buyers continue to struggle to purchase their first home. In this context it is to be hoped that mortgage markets, where lenders will gradually ease their mortgage criteria will play a vital role in the housing market recovery process.

There is little doubt that the private rented sector will continue to thrive. An increasing number will seek to meet their accommodation needs via this tenure. The implementation of the Department for Social Development's strategy for the sector should increase its attractiveness as a longer term housing solution for many more households – as long as Housing Benefit does not suffer disproportionately under the new public expenditure regime.

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Housing Policy Realignment in East Asia

By Richard Ronald

Introduction

In the decade or so leading up to the global financial crisis (GFC) most housing markets in Europe and North America had boomed. At the same time, state approaches to housing had consolidated around the promotion of home ownership as a driver of financial expansion as well as individual housing wealth (Aalbers, 2008; Forrest, 2008; Ronald, 2008; Schwartz and Seabrooke, 2008). This stood in contrast to the direction of housing market and policy development in industrialised East Asian countries that largely experienced housing market volatility, a decline in the state driven promotion of home ownership and, in some cases, a re-emphasis on rental housing subsidy (see Chiu, 2008, Ronald and Chiu, 2010; Ronald and Doling, 2010). This contrast is largely an outcome of the impact of the East Asian economic crisis of 1997-98, which helped reshape socioeconomic and political developments in the region. The sharp financial downturn of the late 1990s devastated housing markets, undermining the economic reliance of many East Asian governments on an expanding owner occupied housing market as a means of stimulating economic growth and social stability.

This article examines the reorientation of housing policy in East Asian countries in recent decades, but in particular since the late 1990s. The focus is the changing role of housing in context of welfare regime features of the region and policy practices of characteristically development focused governments. In this period East Asian states have endured, on the one hand, external pressures to deregulate markets in line with global neo-liberal trends, and on the other, greater internal democratisation which has pressed many governments to expand public provision. Housing policy has borne the influence of these ostensibly contradictory trends in context of a relatively volatile period of economic recovery.

It is also argued that policy developments in the 2000s have reflected the system features and socio-economic embeddedness of housing leading up to the 1990s crisis. Governments had been particularly invested in the housing sector before 1997, but have since reduced the state promotion of home ownership. Disengagement varies in each country according to previous dependency on owner-occupied housing markets as a means of boosting the economy, offsetting the underdevelopment social-security measures, and as a means of shoring up social solidarity. The paper begins by examining shifts in socioeconomic and political contexts in recent decades before considering specific policy developments in each country. It finally addresses how housing markets and policy frameworks held up to the GFC in 2008 and 2009. Indeed, East Asian economies had all come out of recession by the end of 2009 and housing markets have seen a considerable upsurge: in Hong Kong, for example, by as much as 21 percent in 2009.

The East Asian Policy Context

Housing practices and state interventions across the industrialised East Asian countries have been diverse. Differences reflect various institutional constellations and combinations of private and public elements – including government housing loan banks, public rental housing authorities, housing development agencies, etc – establishing policy development pathways (see Chiu, 2008; Forrest and Lee, 2003; Groves et al, 2007; Park, 1998; Ronald; 2007). Nonetheless, by the late 1990s, a consensus had ostensibly emerged around the promotion of home ownership with policies increasingly seeking to expand the number of owner-occupiers and establish housing markets. To understand how this consensus emerged, its economic significance to the region as well as how it differs from western approaches, it is necessary to consider the development of housing policy in the region and its interconnections with a particular form of governance and socioeconomic development.

Characteristic to the period of high speed economic growth between the 1960s and 1990s, associated with the Asian 'Tigers' or 'Dragons', was government involvement in the housing sector. Doling (1999) suggests that the newly industrialised societies of East Asia demonstrated a 'type' of housing provision approach with core similarities in dimensions of state-market and private-collective. While policy frameworks are diverse across East Asia, the nature of 'housing provision chains' are differentiated from Western types. The 'housing provision chain' concerns the life cycle of housing from construction through to consumption. Doling identifies three types of chain in industrialised societies. First is the Liberal type, found in countries like the UK and USA, in which markets rule at each stage largely unfettered by the state. Housing is seen as a private good and sold or leased on the ability to pay. Second is the North European type, found in countries where development has historically been coordinated by public organisations with construction carried out by the private sector. At the end, allocation and pricing is often regulated in terms of social objectives. Third is the East Asian type: the state orchestrates the developmental stage with grand, highly directive plans and state control over the economy affecting speed, location and nature of development. Construction is carried out by private companies and housing sold as a market good in terms of ability to pay.

The reasons for this particular approach arguably lie in the features of the 'developmental state', characteristic to industrialized Asian economies. Developmental states feature autocratic alliances between political, corporate and bureaucratic elites focused on driving economic growth (Johnson, 1982). Social policies in such countries become subject to the interests of economic productivity and expansion. Welfare regimes in this region have thus been described as 'productivist'. Public policy spheres have been subject to a particular logic with spending centred on goods such as housing and education which support human capital and reinforce productive elements in society (see for example, Goodman and White, 1998; Holliday, 2000). Spending on other forms of welfare (unemployment benefit for example) remains underdeveloped as are social rights. A particular focus of state support is the family, considered the primary provider of welfare. Supporting access to and consumption of goods that bolster the economic position of the family has been considered a means to offset the development of onerous welfare states that impede the ability of the state to invest in advancing national economic capacity. Housing policy has thus fulfilled a particular role in East Asian social and economic development. On the one hand, governments have looked to housing development as a stable means to drive urban development and economic growth, and on the other make property asset holding, owner-occupied households increasingly welfare self-reliant in terms of family housing equity (Ronald, 2007; Doling and Ronald, 2010). State subsidies and interventions have thus tended to deliver housing as commodified market goods and not de-commodified forms that potentially threaten to extend the autonomy of workers and a sense of social rights to public goods.

There are some considerable historic differences in the relationship between housing and productivist welfare objectives in each economy. For example, Singapore and Hong Kong have experienced strong state control over land and high levels of state provision. Public housing has come to dominate both systems, although in Singapore public provision has focused on the public leasehold of 'owner-occupied' flats, where the state controls supply, plays a central role in home purchase finance and regulates a large part of the market. Hong Kong alternatively, developed a large public rented housing sector in the 1960s and 70s, but shifted toward the promotion of home ownership in the 1990s by constructing home ownership scheme housing and selling off public rental flats. Japan, Taiwan and South Korea, alternatively, have demonstrated more selective state intervention with subsidy being used to ensure that the housing needs of low income groups are met within a market framework. Until the 1980s China focused on the provision of collective rental housing, but in the 1990s adopted a strong interventionist approach to urban commodification and the expansion of owner-occupation.

Home ownership levels grew significantly across the region in the 1980s and 90s along with state stimulus measures, intense urbanisation and high annual GDP growth. In Singapore, home ownership grew from 29 to 92 percent of stock between 1970 and 2003 (see Chua, 2003), while in Hong Kong the increase was 23 to 52 percent between 1976 and 1997 (see Lee, 1999). Japan, a much older industrialised nation, experienced massive post-war sector expansion with urban owner-occupancy rates rising from around 25 to 64 percent between 1940 and 1965 (see Hirayama, 2007). Although Taiwan has had a very high residual rate, it increased home-ownership from 73 percent in 1981 to 85 percent by 1999. China's state-led housing marketisation expanded urban home ownership from 17 percent in 1985 to 82 percent by 2003 (Wang and Murie, 2000). Even in South Korea, which has been the least effective in transforming new development into owner-occupied housing (see Ronald and Jin, 2010), home ownership grew from 50 to 56 percent between 1990 and 2005.

Housing and Policy after the First Crisis

1997 marks a major watershed in policy and housing system trajectories in East Asia. The crisis had a significant impact on currency and stock market values (the nominal GDP of ASEAN nations fell by 31.7 percent in 1998 alone), and also on housing markets, which declined sharply and remained weak for a number of years. As the East Asian region entered a more volatile economic era in which high speed economic growth and full employment was no longer assured, the prevailing housing model came into question. The new economic period engendered new socioeconomic problems which had not been experienced before when home ownership and property values only grew and the economy was more robust. Housing markets began to feature large numbers of home owners with negative equity and increasing economic inequality between different tenures, types of property and cohorts of renters and owners. Meanwhile, balances between housing supply and demand had to adjust to new economic realities. While some governments, like Hong Kong and Singapore, tightened up supply, others such as Japan, Taiwan and South Korea, who had in the past relied on housing policy as a measure to drive economic revival, eventually sought to stimulate the market.

Two other trends also framed the reorientation of policy. First, there has been increasing internal political pressure as authoritarian power relations have given way to greater democratic contestation. In the cases of South Korea and Taiwan, for example, the 1990s and 2000s saw parties that had long opposed authoritarian regimes form governments of their own. Japan too experienced fractures in the Liberal Democratic Party, who had held power since the 1950s, which finally gave way to a new government in late 2009. In this context welfare and social security issues have become prominent and political parties have rallied around them in order to muster electoral support. Peng (2004) argues that political resistance to redistributive reform is now smaller due to low existing welfare costs and the sense of social equality established during the high growth era. In other words, voters have become tired of the 'growth at all costs' ethos now society is more affluent and differences between the rich and poor have begun to widen again. Consequently, where one would have expected economic downturn to have forced social policy retrenchment, it in fact deepened welfare reform. Moreover, as house-prices tumbled, it became evident that property assets were no-longer reliable as the basis of family security and the welfare system (Ronald and Doling, 2010).

The second trend has been the growing force of neo-liberalisation. This has meant that the advance of welfare measures has not been predictable, with parallel pressures to advance the freedom and influence of markets. Intensified economic globalisation along with the fragile recovery in East Asia in the late-1990s and 2000s prompted governments to give up the controls and monopolies, that previously shaped economic growth, in favour of deregulation and marketisation. As an alternative to the corporate cronyism of the developmental state, market liberalisation has also proved to be an influential agenda in a more democratically contentious electoral environment. For Jessop (2002) greater neo-liberalisation may not necessarily be considered a move away from the boundaries of the developmental state, but rather a practical project that deals with emerging system pressures. Indeed, since the late 1990s governance has featured both neo-liberal trends, with governments seeking to retrench policy and deregulate markets, and increases in public spending and welfare cover. Housing policy transformations across East Asia demonstrate this unlikely combination of influences that also help account for the rather uneven impact of the GFC on East Asian housing markets and economies.

Housing System Transformations

Hong Kong

Among the economies to have focused on the raw promotion of home ownership in the 90s, Hong Kong demonstrates perhaps the biggest policy U-turn in the 2000s. Until the late 1970s, housing policy had focused upon mass public housing construction, seen as a way to provide welfare for working households without stimulating expectations of rights to other benefits. Public housing construction and subsidised rents also served productivist goals by keeping wages lower and driving urban growth. By the end of the 1980s, around 48 percent of housing was under the control of the Hong Kong Housing Authority (HKHA). Since 1976 a growing proportion of public housing had been constructed under the Home Ownership Scheme (HOS) and after 1987 the expansion of owner-occupancy became a primary concern of the HKHA. While subsidised home ownership housing was more intensively constructed, a growing number of public rental apartments were sold off, typically to better off sitting tenants.

Driven by numerous interventions including the Private Sector Participation Scheme, Tenant Purchase Scheme, Buy or Rent Option, Mortgage Subsidy Scheme, Housing Purchase Loan Scheme, Sandwich Class Loan Scheme, Housing Start Loan Scheme, etc (see Lau 2007), home purchases accelerated in scale and housing markets boomed in the early 1990s (see Forrest and Lee, 2003). In 1997 the new SAR government announced the objective of 70 percent home ownership by 2010.

Between 1995 and 1997 Hong Kong experienced an increase in property prices by as much as 66 percent. However, as one of the economies most exposed to international trade and thus most affected by the 1997 economic crisis (Chiu, 2006), Hong Kong also saw the biggest drop in property values (in some cases more than 50 percent by 2000). With a sharp drop in demand, the housing market became problematic both for home owners and developers. The government thus intervened by reducing land supply and transferring HOS stock to social rental purposes. In the early 2000s, in light of erratic recovery and growing demand for housing among poorer households, the government suspended HOS provision as well as the selling off of exiting units to sitting HKHA tenants. While there was some expectation that programmes to promote owner-occupation could be reinstated should the market stabilise, the government abandoned home ownership targets and returned to an approach focused on managing and maintaining, rather than selling off, social rented housing (Lau, 2007).

In the late 2000s the Hong Kong government has increasingly disengaged with long term housing strategies, although the public rental sector continues to house more than 30 percent of the population. It has become increasingly evident in the post crisis decade that society has become more economically polarised with growing numbers of poorer households with little chance of even becoming home buyers. Meanwhile, owner-occupiers continue to suffer from insecurity with levels of negative equity fluctuating with the market. There has been a realisation that the stimulation of home ownership had particular negative outcomes during the economic depression. The state focus now is market mitigation with land sold for development based on applications by developers rather than regular land sales. The housing sector has thus become 'a follower of the general economic conditions rather than a stimulus for economic recovery' (Chiu, 2008; 262).

Singapore

Although Singapore also experienced housing market failure in the late 1990s, the integration of housing policy and social insurance has meant fewer opportunities for the state to withdraw from the promotion of home ownership. Rates of owner-occupancy increased from one-in-three to nine-out-of-ten households between 1970 and 2000 driven by a combination of the Housing Development Board (HDB) construction and Central Provident Fund (CPF) social security practices (both are government agencies). While the HDB built flats for sale (or 99 year lease) on government land (now more than 80 percent of all housing), the CPF is a compulsory saving scheme for workers, who build accounts that can be drawn on to cover pension and welfare needs, or can alternatively be transferred into payments for HDB property purchases. Since the 1970s the vast majority of Singaporeans transferred most of their CPF public pension savings into HDB owner-occupied properties and been assisted in doing so by HDB mortgages with cross financing form the CPF pool. The equity built up in the Singaporean housing stock thus represents a large part of the national pension and welfare reserve.

The housing system established in the 1960s and 70s has allowed the government to exercise control of the housing market and housing finance to ensure the rapid acceleration of construction and home ownership rates. There has been strict regulation on qualification for HDB housing, which has been relaxed when supply has waned, as well as control on supply, that has historically been adjusted in order to sustain house price increases and the flow of households up a housing ladder. The success of HDB housing has also been implicated in the success of the governing PAP party which often uses housing development to bolster support in specific constituencies (see Chua, 2003).

Along with economic growth and intense demand for housing, between 1986 and 1996 was a 440 percent increase in the private residential price index. The 1997 downturn thus hit the Singapore housing market hard. Sudden and deep house price deflation revealed how vulnerable retirement savings in the form of individual housing assets were. Prices dropped by as much as 45 percent with those buying at the peak of the 1990s bubble worst hit in terms of falling equity. The government halted land-sales, relaxed qualification for HDB housing and introduced new purchase subsidies. Nevertheless, housing demand continued to stagnate. The recession revealed fundamental flaws in practices of overbuilding, demand side subsidies and administered prices that were not adjusted downwards (Chua, 2003).

In the 2000s the government has continued to deregulate while the HDB has adjusted output in line with demand. Adjustments have also been made to CPF practices in order to share more of the risk and provide more financial-market sophistication. There remains nonetheless considerable reliance on HDB and CPF controls to maintain housing market stability. In 2002 caps were placed on CPF withdrawals for housing to reduce risks of over-investment. Supplementary pension savings schemes have also been introduced following the post Asian crisis realisation that even though most pensioners own housing assets most will not have adequate income to support retirement (Lim, 2001).

The government has become increasingly concerned with managing the housing cycle and, in 2005, further deregulation was accepted in order to boost the market. These included relaxing rules on foreign flat ownership; a reduction in cash down payment requirements; increasing the maximum loan to value ratio and allowing non-related singles to use their CPF accounts to buy a property together. Facilitating access to housing wealth has also been an objective and, in 2009, a new Lease Buyback Scheme was introduced to assist older home owners realise the asset wealth in their flats. The scheme allows the owner to sell a proportion of the remaining lease period back to the government in return for a lump sum plus a supplemented deposit in a CPF annuity. The HDB has also increased investment in subsidised rental housing for lower income families who cannot afford to buy a HDB home.

The policy strategy in Singapore in the 2000s has essentially become one of mitigation. As too much of the housing and welfare system depends on sustained house prices increases, policy continues to support home ownership, but has attempted to bring more of the market in and to spread the risks. At the same time, the end of full employment and uninterrupted economic growth has required the government to address holes in the social security system more directly.

Japan

Unlike other countries in the region, Japan was already suffering from a long deep recession when the Asia financial crisis unfolded. Nonetheless, the shift in regional conditions prompted a further reorientation in housing policy.

State intervention in the housing sector had accelerated in the 1950s as high speed economic growth took off. The key policy measure facilitating housing market expansion was the Government Housing Loan Corporation (GHLC), although other government departments were involved in public housing programmes. The GHLC provided long term loans at fixed rates that supplemented private mortgages and company loans for employees. Home ownership rates and house prices accelerated rapidly in the 1960s, but were interrupted by the Oil crisis of the early 1970s. The government subsequently improved the flow of GHLC funds as a means to re-galvanize demand and prime the economy. House prices continued to rise into the 1980s requiring an ever increasing volume of mortgage finance.

When the Japanese economic bubble burst in 1990, land values, which had provided collateral for considerable borrowing in other sectors, began to falter. Urban property prices dropped between 1993 and 2003 by as much as 40 percent (see Hirayama, 2007). Owner-occupiers experienced major capital losses undermining the asset security of homeownership as a welfare strategy. The government's reaction was initially greater emphasis on mortgage lending and increasing housing output as a means to stimulate the economy, even though there was already a housing surplus and prices were slipping. Essentially, the housing sector was seen as a pump-primer for the economy overall, and so maintaining property values was sidelined. Meanwhile, the aggregate national mortgage debt continued to swell from 19.4 percent of GDP in 1980 to 37.3 percent in 2000 and 40.3 percent by 2005 (JHFA, 2009).

The 1997 Asian crisis helped reinforce the recession that Japan was already in. Increasingly drastic measures were sought to ease the economic situation. By the time of the Koizumi administration in 2001 rather than greater intervention, housing deregulation had become the policy objective, considered the answer to economic imbalances that were holding back economic recovery. The GHLC was thus abolished, to be replaced by the Japanese Housing Finance Agency (JHFA) in 2007. The JHFA is concerned with the regulation of securities in a secondary mortgage market leaving the private banking sector to fill the gap in the primary loans market (Oizumi, 2007).

The legacy of stimulus strategies and mortgage deregulation in the 1990s has been a rise in mortgage repayment difficulties in the 2000s. Of the GHLC loans inherited by the JHFA, defaults and arrears increased 32 percent in the fiscal year 2007. Meanwhile, the public auctioning of foreclosed homes showed an annual increase of 35 percent in 2008 (JHFA, 2009). While it is evident that a large number of home buyers are getting into trouble and that home ownership rates, especially among younger households are falling, the government no longer has the means to adjust conditions. Stabilising the housing market has proved a major challenge, even during the short economic recovery between 2003 and 2008.

Japan's housing system is arguably the most mature in the East Asian region which may help explain why housing policy in the 2000s is ostensibly the most neo-liberal. Nonetheless, the pattern of previous interventions continues to shape policy options. In other spheres, such as elderly care, the state has been pushed to expand provision as the viability of housing assets as a pillar of welfare has been eroded. Thus, while housing policy development demonstrates neo-liberalisation, the state overall, with increases in social spending from 14 to 19 percent of GPD between 1995 and 2005, also shows some social democratic tendencies.

South Korea

In South Korea house building has been particularly intense, and between 1989 and 2007, 70.6 per cent of all housing, were constructed (an average of 563 456 new homes per year) (MLTM, 2008). However, housing policy has focused on supply and poorly targeted lower and middle income home buyers. Home ownership rates have thus remained modest, and while owner-occupied housing assets do provide a pillar of welfare, home ownership has not be as central to social policy in South Korea. Indeed, characteristic of housing policy transformations in the 2000s has been a shift toward building social rental housing stock, on one hand, and controlling overheated housing market speculation on the other. Both activities reflect a growing polarisation between affluent urban (multiple) property owners and lower income renters.

Before the 1990s governments had been characteristically autocratic, although maintaining power had become increasingly dependent on economic growth and transforming urban living conditions. Housing policy was dominated by grand output targets for the construction of apartments for sale. Subsidies were substantial, although mediated through developers. Due to poor lending conditions with low loan to value ratios, among other factors (You, 2005), new building flowed largely to higher income households, many of whom speculated (with a growing number of multiple property owners) making house prices volatile. Low income home ownership was thus constrained as new construction fed new urban landlordism (the private chonsei rental sector grew from 17.5 to 27.8 percent of housing, 1975-1990). The state became characteristically interventionist, introducing anti-speculation measures when prices spiked and incentives when they dipped. State intervention effectively became a constant function of the market (Park, 2007). However, in 1993, the government began to advocate reduced market intervention. Housing policy subsequently focused on deregulation and the promotion of private sector. With deregulation, supply again advanced with development increasingly concentrated in the Seoul Metropolitan area (44 percent of all new units, 1993-1997).

The 1997 Asian economic crisis led to record interest-rates and unemployment in 1998. Both rents and house-prices fell and housing construction diminished. Seeing housing construction as an economic pump-primer, the Kim Dae-Jung administration (from 1998) set out a package of incentive measures to revitalise the housing market. In finance, mortgage securitisation was introduced through the inception of Korea Mortgage Corporation (KoMoCo). This was expected to enhance funds available for primary lenders for home-buyers (You, 2005). The Korean Housing Bank was also privatised and later merged with the largest commercial bank (to create the Kookmin Bank).

Rapid house price inflation returned quickly after 2002. Mortgage lending escalated rapidly and while aggregate mortgage debt had been 7.81 trillion won in 1990 it reached 73 trillion by 2007. In an effort to contain the situation, the government announced more than 40 market stabilisation measures between 2002 and 2008. A more significant policy departure was the planned construction of one million public rental houses by 2012. The more social democratic Roh Moo-Hyun government (2003-2008) took a strong line on public provision and against real-estate speculation, seen to be widening the gap between rich and poor. There was further housing finance reform with the merging of KoMoCo and the Credit Guarantee Fund to form the Korean Housing Finance Corp (KHFC) in 2004, in order to facilitate the greater flow of funds to low to middle-income home buyers.

In 2008 the more economically liberal Myung Bak Lee came to office and set about transforming some of the planned social rental housing construction into housing for sale. User subsidies for poorer households have been advanced as the solution to housing problems, thus shifting the focus back to the market.

China

China is somewhat of a special case in terms of the nature, scale and timing of interventions. The Deng Xiaoping's reform plan in the 1980s aimed to (re)introduce home ownership and market principles into the housing sector, replacing the government's role and housing allocation by work units at nominal rents. The prevailing strategy of low rent policies had made recovery of housing investment almost impossible. The new strategy was part of the economic restructuring necessary for reengagement with the global economy. Housing policy was a critical measure in reducing state financial and administrative responsibility while mobilising non-government sectors and private markets as its replacement (Wang and Murie, 1996).

Due to state control and ownership of land there was considerable scope for transformation. First stage housing reform experiments (1979-1985) were carried out in selected cities, testing the potential for commercialisation of urban housing. More comprehensive restructuring was carried out (1986-1988) in which the state raised rents while public-sector housing was sold to existing tenants. In 1988, the Ten Year Reform Strategy formulated new housing finance arrangements. Urban home ownership grew from 17 to 45 percent between 1985 and 1997. This was largely achieved by selling off employee (work-unit) rental units to sitting tenants. There were also subsidised build-for-sale schemes for lower middle income families.

Housing insurance and loan systems were established in order to facilitate the transfer for a growing number of households from renting to buying. A compulsory Housing Provident Fund was also introduced for public workers to support savings for, primarily, home purchase and has been extended to other employees since the late 1990s (Wang and Murie, 1996, 1999).

The impact of the Asian financial crisis on the Chinese property sector was limited and did little to diminish plans for further marketisation. Reform after 1998 involved abolishing work-unit housing allocation in favour of real estate markets. While the majority of urban residents became home-owners, increasingly only the better-off could afford to buy housing on the open-market. The state has thus been required to reengage with housing subsidies. The Comfortable Housing Project and The Economy Housing Plan have been major housing initiatives established to cope with falling affordability. These, however, largely failed to bring housing prices within reach of low income households. Many families still require assistance from work-units and municipal housing bureaus, which in most cities buy commodified housing units and reallocate them to employees (typically partial homeownership with restrictions on resale).

In the late 2000s housing for low-income urban families has been established as a national priority. The increasing income gap between different social groups called for greater provision of low-rent housing. Legislation enforced since 2004 has defined criteria for qualification for housing subsidies, which have been expanded since 2007 from ‘lowest income households’ to ‘low-income households’.

Essentially, China was a late starter in the privatisation of housing and the least affected by the Asian financial crisis. China thus continued to undergo wide reaching and intensive transformations toward mass home ownership in both the 1990s and 2000s. Democratic contestation has not particularly affected political conditions although declining housing affordability has forced the socialist state to re-engage with housing subsidies for low-income households. The all-out desire to replace social rental housing with home buying has thus been diminished, but in a different context of policy restructuring found in neighbouring economies.

Taiwan

In Taiwan, there has been a high residual rate of home ownership that has been associated with traditional practices involving intergenerational transfers and self-build housing. In recent decades a pre-sale housing system has helped drive the expansion of private sector housing construction (Li, 1998). State intervention and housing subsidies have also escalated, helping push home ownership rates up further.

Following a rapid period of industrialisation, the government began to face increasing political and economic challenges in the early 1970s. The then dictatorial Koumintang seeking to regain public confidence, and inspired by the success of the Singapore housing programme, fitted social housing construction into the national economic development plan. Social housing in Taiwan has typically meant subsidies for owner-occupied homes for key categories of citizens (such as military personnel and public workers). As the real estate market slumped in the 1980s, the state began to construct more social housing as part of a strategy to increase public spending and maintain economic development (see Tang, 2007). Also important were targeted cash subsidies (subsidised housing loans with below market interest rates) for low income workers, civil servants, military servicemen and indigenous people. In the 1990s political contestation transformed the nature of the Taiwanese developmental state. The pressures of democratisation prompted the ascendance of housing and social welfare provision as political issues. State intervention and social housing provision greatly expanded but in terms of private and public partnerships, with the state utilising public owned land and financial resources to promote the activities of private agents. Social housing has continued to mean subsidised home ownership in most cases. One key measure has been the government subsidy for home loans, which increased from NT$ 40,000 million in 1990 to NT$204,400 million by 2001.

In the post 1997 milieu, the state adopted more the role of market stabiliser. The construction sector was the first target of its rescue plan and considerable reserves went into, at first, controlling supply and later, subsidised loans in the belief that recovery in the housing sector would improve conditions in the economy. The provision of social housing continued to grow in the 2000s accompanied by monetary programmes to stimulate the real estate market. The preferential housing loan programme since 2000 has provided housing loans with preferential interest rates for those aged 20 to 40 to buy their first home. The state also improved cover on mortgage arrears for home owners with temporary difficulties.

For Chen and Li (2010) Taiwan’s housing policy has been reactive to changing economic and political pressures at different stages of development. The market orientation of housing policy has involved intensified privatisation in terms of public private partnerships and non state provision. In this case, housing marketisation and privatisation has not represented a process of state retreat, but reformulation of the ways that government and market sectors interact under state governance. In recent years policy has been relatively stable although there have been indications that the system may be vulnerable to house price bubbles. Affordability has thus been more of a concern and in 2003 average family expenditure on housing was already 34.9 percent of total expenditure (DBAS, 2003).

Housing Markets and Policy Interventions after the GFC

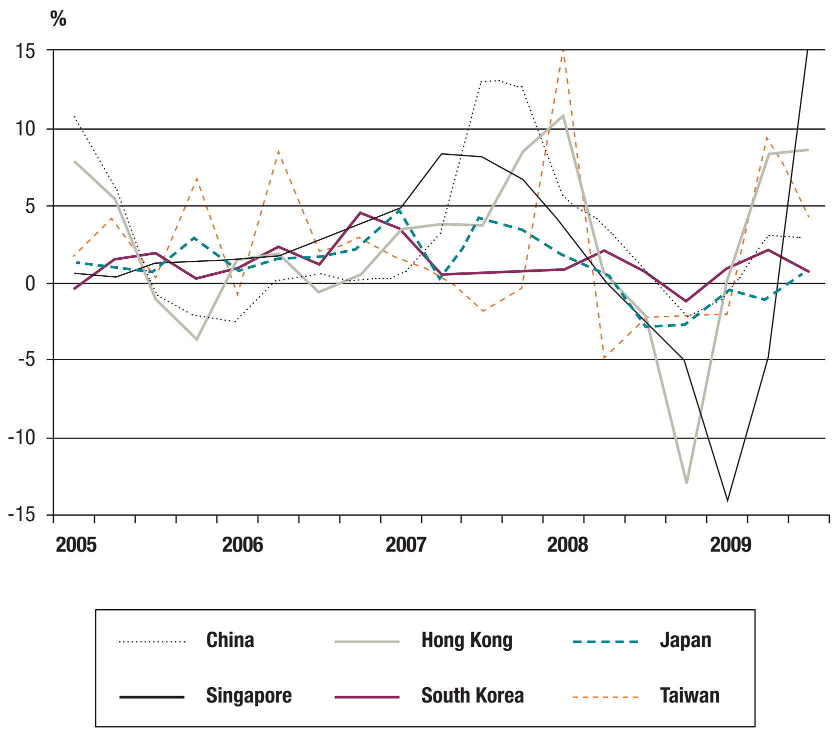
The onset of the GFC in late 2008 sent shockwaves across international markets. While GDP dropped sharply, by the 3rd quarter of 2009 all East Asian economies were showing growth again. The GFC has affected these economies very differently to the Asian financial crisis and in comparison to western industrialised nations. East Asian economies were not so embedded in toxic networks of mortgage securitisation and were more affected by the drop in international trade. Domestic demand, as well as the continued growth of the Chinese economy, has been important in reviving consumer confidence and economic revival. Stimulus measures in some countries have also boosted recovery. Most economies are expected to grow by at least four percent in 2010 and the World Bank prediction for China was recently upwardly adjusted to 9.5 percent.

The GFC initially caused house prices to slump across East Asia. Figure 1 illustrates house price changes leading up to and after the 2008 crisis. Markets had recovered from the late-1990s crisis by 2004 and were beginning to reflect the global boom in 2007. However, reactions to the GFC varied with substantial drops in value of up to 25 percent in Singapore and Hong Kong, but as little as two or three percent in South Korea and China. Japan and Taiwan experienced a year on year price index fall of 7.8 and 11 percent respectively by the first quarter of 2009. Nonetheless, local mortgage markets were more insulated from international conditions and demand also recovered quickly following the short-lived downturn in economic output.

In the last year East Asian housing markets have boomed. Indeed, while they suffered worse in the downturn, Hong Kong and Singapore responded with a remarkable housing market upsurge in 2009 of 15 and 21 percent respectively. While there has been significant domestic demand, recovery has apparently been boosted by foreign investment. China's November-2008 stimulus package boosted liquidity, with cash-rich Chinese buying significant numbers of properties in Hong Kong (GPG, 2009a). Meanwhile in Singapore, according to a survey by Savills Singapore, foreign buyers accounted for 22.7 percent of sales in the third quarter of 2009. Taiwan also showed strong recovery with a house price index increase of 9.4 percent by the third quarter of 2009.

Chinese and South Korean property markets had been more prone to overheating leading up to the crisis and in 2008 were already subject to housing market cooling measures. The GFC caused a brief downturn in property values, but soon returned upwards. The Chinese government reacted to the downturn in 2008 by improving lending conditions: by reducing down-payment requirements for first time buyers and interest rates on home loans. Thus while outstanding home loans fell by 1.7 percent in 2008, they surged 29.5 percent in the first half of 2009 (GPG, 2009b). Some countries, including Singapore and South Korea, have reacted strongly to the resurgence in property values and in 2009 implemented market dampening measures.

Figure 1 **House price changes**



Source: Hong Kong Ratings and Valuation Department, The Land Institute of Japan, Sinyi Property Inc. Korean Statistical Information Service, Singapore Urban Redevelopment Authority, eHomeday, Global Property Guide

Housing Policy Trajectories

Housing policy realignment varies in intensity from country to country, and largely reflects the trajectory of housing system development prior to 1997. For countries such as Taiwan, Japan and Singapore, where home ownership was most embedded in the housing system and a more fundamental pillar of family welfare, housing policy has continued to support home ownership as the mainstream tenure. Nonetheless, state interventions have often been diminished in favour of market practices. Arguably, in these contexts recourse to rental housing policies as a means to deal with either housing or welfare issues have been limited. On the other hand, the large existing social rental housing sector in Hong Kong and substantial potential to expand social rental provision in South Korea has meant that emerging housing needs have been dealt with, in large part, by coordinated housing policy measures in the 2000s. According to Chiu (2008) another divide can be drawn between countries like South Korea and Taiwan, which used housing market development as a tool for facilitating economic revival, and on the other side Hong Kong and Singapore where housing and land supply was tightened in order to address significant supply and demand imbalances. China differs to the extent that the commodification of housing policy began much later and was not meaningfully interrupted by the Asian Financial crisis. Nonetheless, rapid marketisation and price increases have already generated their own problems requiring state agencies to re-engage in the allocation of housing for low-paid workers.

What sets these countries apart from industrialised economies in Europe and North America is a combination of transformations in socio-economic and political conditions triggered by the financial crisis of 1997. The end of an era of relatively full employment and smooth economic growth revealed various flaws in existing policy arrangements. Economic transformations also resulted in the reassertion of inequalities, wealth gaps and social fragmentation, prompting the realisation that home ownership is not necessarily a one-size-fits-all policy strategy and that many poorer households may never be able to become owner-occupiers. These arguably reinforced political pressures on developmental states to transform housing and welfare approaches. These developments ran, at the time, counter to those in western contexts where governments sought means to extend home ownership further: by introducing shared ownership programmes, subsidising deposits for target groups and deregulating lending in order to increase the flow of mortgages, etc.

In understanding the different policy strategies adopted in different countries the notion of 'pathways' is particularly useful. Pierson's (2000) analysis in this case illustrates how structures already in place become self-enforcing and constrain reactions to change. This provides some insight on the nature of divergence in the Asian policy context. Chiu points out that, 'as the government intervention modes in housing among the dragons differed, policy adjustments to tackle the downturns in the economy and the housing market inevitably diverged' (2008, p 264). Thus, while there had been an ostensible convergence around the promotion of home ownership in the 1990s, diversity in institutional arrangements – in the mix of state and market; in the constitution of housing and welfare systems and the distribution of tenure – set out a framework for significant divergence in the 2000s. In light of the GFC, countries in Europe and elsewhere may expect similar diversification in approaches as the context of housing shifts. These may well vary to the extent home ownership is embedded or social rental housing provides a practical tool for dealing with the effects on households of emerging market problems and the growing manifestation of inequalities among different categories of households.

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The Impact of the Financial Crisis on UK Mortgage Funding

By Rob Thomas

This paper examines the impact that the global financial crisis and policy response has had on the UK mortgage funding market, seeking to explain why the UK has been hit so hard. It then considers how quickly funding markets are likely to recover, examining whether government funding support can be unwound on the proposed timetable and what the implication of this might be.

1. The Shift to Wholesale Funding from the 1980s until 2007

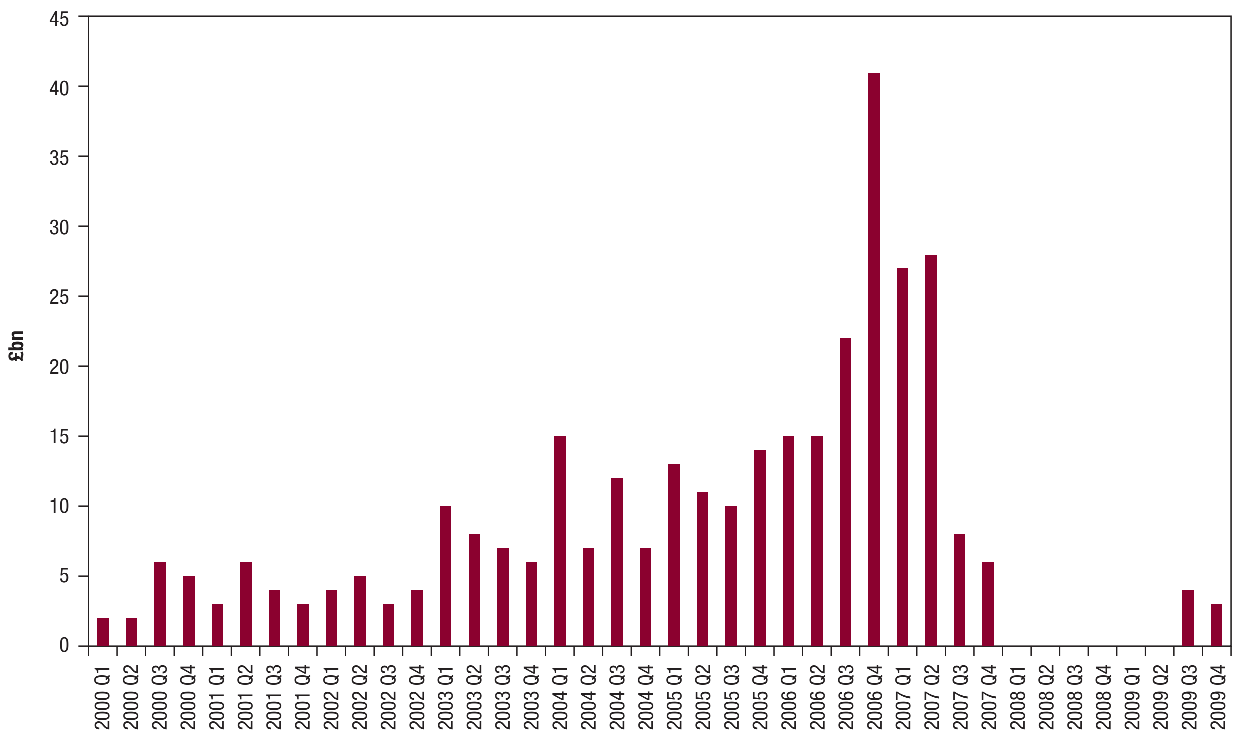
Wholesale funding became a significant feature of the UK mortgage market after deregulation in the 1980s, as it allowed banks and specialist lenders who tapped wholesale funding sources to enter the market. But, it was not until the end of the 1990s that wholesale funding became substantially more important when the largest mortgage lenders launched residential mortgage backed securities (RMBS) programmes. This was followed in 2003 by the introduction of covered bonds in the UK.

As Figure 1 shows, the large lenders' move into RMBS fed substantial growth in total public issuance in the 2000s, with a peak being reached in H2 2006 and H1 2007.

Between 2000 and 2007 the total amount of outstanding RMBS and covered bonds rose from £13bn to £257bn[1]. This took them from funding 2.5% of the UK mortgage stock to 21.5%. Figure 2 shows this graphically, with RMBS and covered bonds represented by the lighter red area, while other private sector sources (retail deposits and other wholesale funds) are shown in dark red.

This period of rapid growth in wholesale funding was driven by the exceptional strength of the UK mortgage market and other lending segments (aided by the strength of global investor demand), which outstripped the ability of retail deposit balances to keep up. Total outstanding mortgage debt rose from £495bn at the end

Figure 1 **Public Issuance of RMBS in the UK (quarterly)**



Source: HM Treasury report: Mortgage finance: final report and recommendations

[1] HM Treasury report: Mortgage finance: final report and recommendations.

of 1999 to £1,187bn[2] by the end of 2007, a compound growth rate of 11.6% per annum.

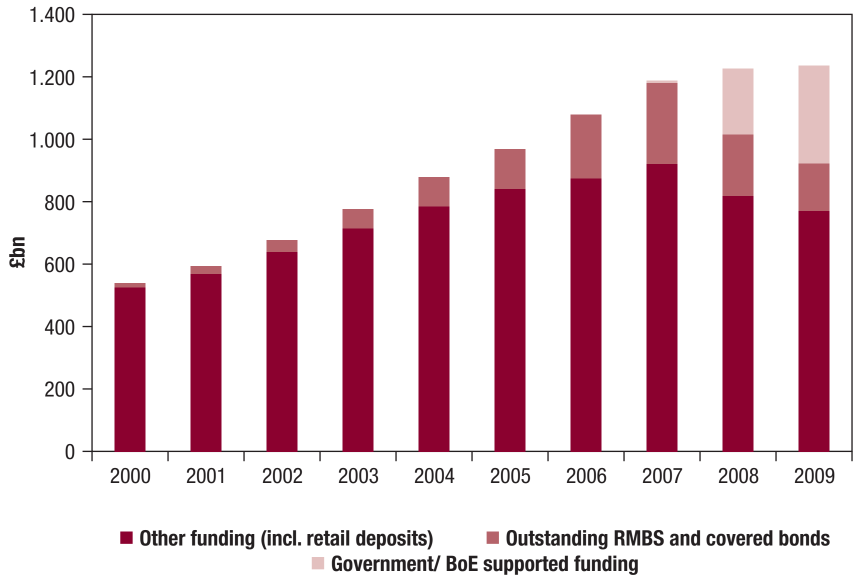
This compared with an increase in retail deposits from £558bn to £1,070bn[3] – this gain of £512bn was £180bn short of the growth in mortgage debt, suggesting that the rise of wholesale funding was not just a choice made by lenders, but was driven by an underlying shortfall in UK cash savings. Today, the retail savings market cannot on its own cater for the level of mortgage borrowing demand in the UK.

To the extent that this disparity between the growth of lending and deposits had been the result of changes in the way people save, with relatively more money flowing into institutional investments such as pension funds and proportionately less into personal cash savings, it could be considered sustainable.

But the majority of the wholesale money raised, perhaps as much as 70%, actually came not from UK savers but from abroad, mirroring Britain's current account deficit and reflecting our low savings rate.

This suggests that the growth in wholesale funding was in part the consequence of an ultimately unsustainable growth of UK consumer indebtedness, fuelled by excessive investment flows from other countries, ultimately fed by excess global liquidity that resulted from high savings rates in some developing economies such as China.

Figure 2 **The Funding of UK Mortgage Debt**



Source: CML, HM Treasury.

2. The Vulnerabilities Implicit in the Shift to Wholesale Funding

(a) The UK's Structural Vulnerabilities

Prior to the financial crisis, there was little or no appreciation of the potential vulnerabilities of this new funding system, with a general assumption that, as long as UK mortgage assets were sound, wholesale funding would be forthcoming. But, the way wholesale funding developed in the UK gave rise to specific vulnerabilities that have been less evident in other countries with large wholesale funding markets because of important structural differences:

(i) Vulnerability to Periodic Systemic Losses of Investor Confidence

Wholesale funding markets have periodically shut in the past, as seen during the emerging market crisis of 1997 - 1998, though never for as extended a period as in 2007 - 2009. But, during these episodes, investor fear has usually driven a flight to quality. Despite most bonds suffering, bonds that are considered especially "safe" often benefited from investors' heightened concerns about risk.

Most notably, this has acted to support the US agency market (RMBS and other bonds issued by Fannie Mae and Freddie Mac which fund the majority of prime US mortgages) because these were considered to carry an implicit US government guarantee (and indeed the US government did come to the aid of Fannie Mae and Freddie Mac in 2008). But, such a flight to quality has also supported covered bond markets in Europe that have built a reputation for being ultra-safe. They are considered by many investors to benefit from implicit government support, because of their importance within the financial system and in delivering credit to the real economy.

The UK RMBS and covered bond markets have never had such implied support. When the government took control of Northern Rock in 2007, it guaranteed the senior unsecured bonds while failing to give any support to the RMBS and initially also the covered bond programme. This sent out an important message, not lost on investors, that RMBS and covered bonds were, in terms of UK government backstop, inferior to senior unsecured bonds issued by banks and building societies.

This can be contrasted with the actions of the European Central Bank (ECB) which, in deciding to buy covered bonds in May 2009, sent out a strong signal of support for this market. Furthermore, the UK government took the decision to focus support on large depository institutions, with the small building societies and specialist, non-deposit taking lenders excluded from all government measures. Again, an important signal was sent about where investors could expect to see the limits of government support.

This could be contrasted with actions in other countries, most notably the US, which has supported asset backed securities (ABS) markets through the Term Asset Backed Securities Loan Facility (TALF) and Federal Reserve and Treasury purchases of Fannie Mae and Freddie Mac RMBS.

The ECB and Fed took these actions because the systemic importance of, respectively, the covered bond and ABS markets, to their financial systems made their continuing functioning vital to re-establishing stability and underpinning recovery. The lesson is clear. Once a financing system or instrument becomes vital to the stability of the financial system as a whole, and to the wider economy, governments will have little choice but to provide tangible support when needed.

RMBS and covered bonds have not reached this level of importance in the UK, where retail deposits remain vital to the funding of our banks and, in particular, our mortgage market. They are followed in systemic importance by senior unsecured bank bonds, because the failure to

[2] CML data

[3] Bank of England data

repay investors in these bonds would trigger a bank insolvency.

Thus, it was no surprise that the Chancellor gave an assurance to the public, after the run on Northern Rock, early on in the crisis, that all retail deposits would be safe regardless of the limits set under the financial service compensation scheme (FSCS)[4]. Nor was it a surprise that the CGS was applied to senior unsecured bank bonds while its equivalent for the RMBS market, the ABS guarantee scheme, which was based on a proposal from the final report on mortgage finance written for the Treasury by Sir James Crosby, came later and on terms making it unattractive relative to the CGS. Thus, while the CGS has provided guarantees on £134bn of unsecured bank bonds, the ABS guarantee scheme has seen no usage.

The government provided support where it felt it needed to, which was understandable during a crisis. But, as the crisis subsides, it has the opportunity to take a more strategic view by providing support more evenly amongst different funding mechanisms. Unfortunately, this opportunity has not yet been seized despite examples from abroad, such as the Australian RMBS purchase facility designed to support new RMBS issuance, which has helped that market recover.

Instead, the UK has stayed with a system of direct support through the CGS, even though support through a collateralised funding scheme such as the ABS guarantee scheme would have provided more comfort to taxpayers, since the government would have received a priority claim on the mortgage pools backing the bonds.

The result of this lack of UK government support for the RMBS and covered bond markets has been a distortion of competition in funding markets. This has disadvantaged these instruments relative to retail deposits and senior unsecured bonds, and made them more vulnerable to future shocks in the UK than equivalent markets overseas.

While US and German mortgage consumers should continue to benefit from a reliable stream of funds, funded respectively through the agency RMBS and covered bond markets, UK consumers will remain vulnerable to interruptions in the flow of funds of the kind we have seen in the last two years.

The focus of support on retail deposits and senior unsecured bonds is also distorting the competitive landscape as it is disadvantaging lenders that rely on wholesale sources such as RMBS.

(ii) Vulnerability to Systemic Cross-border Losses of Investor Confidence

Cross border investors have a tendency to retrench back to their home countries in times of severe stress. Consequently, UK lenders' dependence on overseas investors, with an estimated 70% of RMBS and covered bonds sold to foreign based institutions, has been shown to have been a particular weakness, although issuers had, reasonably, believed that tapping foreign investment funds would provide diversification.

This weakness has not been shared by other major mortgage markets to the same extent. Both Germany and the US have large domestic institutional buyer bases funding mortgages, through the covered bond market in Germany and the agency market in the US. This has left them less vulnerable to the cross border investment retrenchment seen during the financial crisis.

(iii) Vulnerability to Crises Affecting Leveraged Investors

The overwhelming majority of demand for floating rate bonds (whether they are RMBS, covered bonds or senior unsecured bonds issued by lenders) has traditionally come from leveraged investors (banks, hedge funds using leverage, structured investment vehicles - SIVs - and conduits). This is because most long term cash investors such as pension funds need dependable income streams and floating rate bonds do not provide these. But, for leveraged investors whose cost of funds is linked to Libor, floating rate securities are ideal as they provide a matching Libor linked income stream.

The UK was again more vulnerable here, because most UK RMBS have been floating rate to match the interest rate profile of most UK mortgages. As a result, the overwhelming majority of investors, some 75%, were leveraged, and as much as 50% of investor demand came from banks.

By contrast, in the US and most continental European markets such as Germany, long term fixed rate mortgages predominate so securities funding those mortgages also typically are fixed rate, making them more attractive to unleveraged investors such as pension funds.

Typically, demand from leveraged investors is quite cyclical, rising and falling with the credit cycle, while demand from unleveraged investors such as pension funds tends to be more stable over time, reflecting the more stable profile of pension saving. And leveraged investors are always potentially vulnerable to systemic losses of confidence that undermine their ability to refinance.

This created another vulnerability for the UK mortgage market as it came to rely increasingly on wholesale funding, that was not mirrored in key overseas markets to the same extent. Clearly, the implications of this vulnerability were not recognised by lenders or UK regulators at that time.

(b) The Consequences of the UK's Structural Vulnerabilities

None of the three vulnerabilities outlined above has been resolved. This suggests it may be quite hard for the government to remove its c£300bn of funding support in the short term and that, if and when it does, the financial system will still remain vulnerable to future shocks in the absence of structural changes.

Moreover, as the financial crisis has demonstrated, this vulnerability is independent of the credit performance of the underlying loans and, to a large extent, also of the strength of the lenders operating in the market. The investor hiatus in new RMBS and covered bond issues was regardless of the quality of the mortgage assets, or even the lender behind the transaction. The closure of these primary issuance markets was absolute and indiscriminate.

This has important policy ramifications. It suggests that the FSA's focus to date on bank capital and liquidity and on tightening mortgage regulation, culminating in the publication of the FSA mortgage market review (MMR) discussion paper in October 2009, does not address the most significant weakness in the UK banking system – that is the structure of funding markets.

This is a significant shortcoming in the tripartite response to the financial crisis, as it was not poor quality residential mortgage lending that made UK banks vulnerable in the crisis, nor even in the first instance their capital or liquidity position. Rather, it was their inability to refinance in wholesale markets that forced the government to come to their aid. A major gap in the policy response has been the lack of progress towards answering the question how to ensure that our funding system is less vulnerable to future interruption.

[4] HM Treasury statement of 17 September guaranteeing northern Rock deposits.

3. Impact of the Financial Crisis

The vulnerabilities of the global financial system became all too apparent from the summer of 2007 when wholesale funding markets suddenly seized up. This proved to be the first sign of a financial crisis that necessitated unprecedented government support across the globe. The range of measures introduced by central banks and governments has been extraordinary. In the UK these have been:

Bank of England:

- Special liquidity scheme (SLS) – with this scheme the Bank of England allowed deposit takers to swap their illiquid bonds from short dated gilts.
- Asset purchase facility – allowed the bank to purchased securities in the open market to ensure that credit continued to flow to vital parts of the economies such as companies that had lost other sources of funds.
- Enhanced access to the discount window – this provided additional funding support to banks.
- Quantitative easing – allowed the Bank to create money and use it to purchase bonds, mainly gilts, in the open market to increase the volume of cash in the banking system.

Treasury:

- Credit guarantee scheme (CGS) – allowed deposit takers to issue bonds with a government guarantee.
- Asset backed securities (ABS) guarantee scheme – allowed deposit takers to issue ABS with a credit or liquidity guarantee from government.
- Asset protection scheme – government provided insurance for deposit takers against exceptional credit losses.
- Equity injections in banks – government took equity stakes in some banks to shore up their capital.
- Promise to depositors that their money is safe – government guaranteed the deposits of Northern Rock and offered to do likewise if other institutions suffered similar deposit runs.

As if these measures were not enough, the financial system and the wider economy also benefitted from an unprecedented loosening of both fiscal and monetary policy, with the budget deficit reaching some 12% of GDP and Bank rate cut to an all time low of 0.5%.

Of those measures above which are designed directly to support wholesale funding, by far the most important have been the SLS and the CGS, and both of these are explicitly time limited. The BoE's SLS was launched in April 2008 and ran until January 2009. The BoE has released details of the scheme's usage which shows that £287bn of collateral (mostly RMBS and covered bonds) was pledged to support £185bn of funding provided to the banks.

Ironically, while the financial crisis closed primary issuance markets, it led lenders to create record volumes of new RMBS and covered bonds, which were retained on balance sheet and used as collateral to access central bank repo facilities, in particular the SLS.

Figure 3 shows the dramatic impact of this on the level of RMBS 'issuance' (there was also a spike in retained covered bond issuance, including through a number of new programmes set up by building societies specifically to access the SLS). 2008 saw a record overall RMBS issuance of over £180bn, almost all destined to support the SLS and other collateralised loans from the central bank.

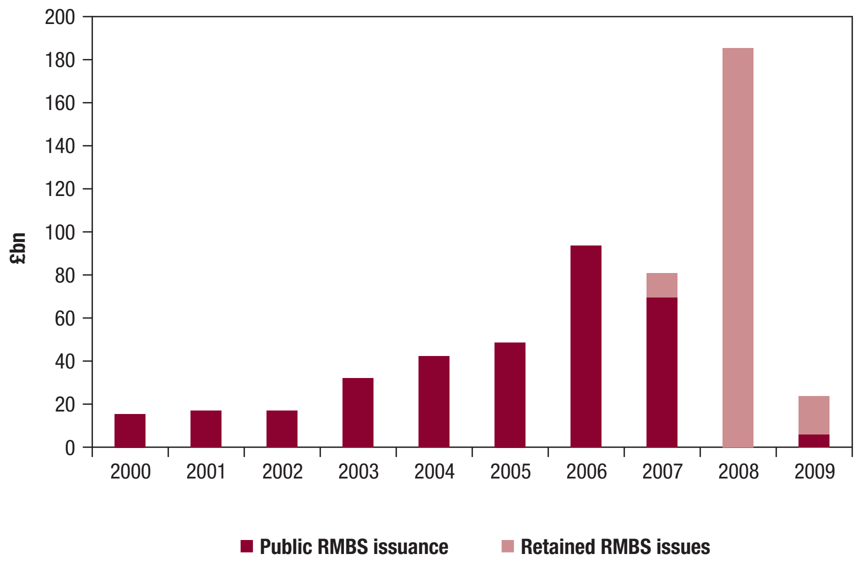
The BoE has been quite vocal in its criticism of securitisation in the wake of the US sub-prime mortgage crisis. Yet, ironically, its requirement that lenders must post AAA rated collateral to access the SLS has driven record levels of retained RMBS issuance, as the tranching in RMBS enables issuers to create AAA rated securities even when their own rating is much lower. This should illustrate to the BoE and the government the value of RMBS as a funding instrument.

The SLS is set to terminate over the course of 2011 and January 2012 requiring banks to repay £185bn. The further requirement to refinance £134bn of funds raised under the CGS over 2012 - 2014 can only make banks' task that much harder. Even if lenders can refinance the SLS, cost will be an issue. The SLS was priced at the equivalent of 3 month Libor even though it is a 3 year facility. So banks are likely to face a significant rise in funding costs if they can replace the SLS with privately raised funds, whether these are retail or wholesale.

The requirement to repay these two schemes at set future dates has created serious uncertainty for the banks in receipt of the funds. These banks do not know with any certainty how they will be able to fund their existing balance sheets beyond 2011, let alone fund any net new lending to customers. Furthermore, the use of these schemes is very concentrated amongst a small number of banks.

On top of the requirement to refinance the SLS and CGS, some £53bn of existing master trust RMBS and covered bonds become repayable in 2010, following a similar level of redemptions in 2009. Lenders would thus have to issue £53bn of bonds in 2010 just to stand still in these markets.

Figure 3 **Publicly Issued and Retain RMBS Volumes**



Source: Bank of England.

Moreover, since these bonds were sold in the pre-crisis period, they carry very low spreads, so even if they can be refinanced without government support, the cost again is likely to be significantly higher than lenders have been paying. For example, Lloyds' 2009 RMBS issue was priced at 3 month Libor + 185bp while Barclays covered bond was mid swaps + 60bp (equivalent to Libor + 60bp). These deals are respectively about 160bp and 60bp above the spreads lenders were paying in these instruments before the financial crisis.

Table 1: Recent RMBS and Covered Bond Issues without Government Support

	Type of issue	Rating	Spread	Amount raised
Lloyds Banking Group	RMBS	AAA only	Libor +185bp	£4bn
Nationwide Building Society	RMBS	AAA only	Libor +145bp	£3.5bn
Barclays	covered bond	AAA	Swaps +60bp	€2bn
Abbey/Santander	covered bond	AAA	Swaps +65bp	€1.75bn

Source: Issuers, Fitch Ratings

4. The Current Condition of Funding Markets

The measures of support outlined above have helped to stabilise the financial system, and have even allowed confidence to rise to the point where banks have resumed RMBS and covered bond issuance without direct government support, with four deals launched in the second half of 2009 as shown in Table 1.

The speed with which these markets have recovered has surprised many commentators. However, it is widely believed that potential aggregate investor demand is quite limited, with many investors who previously bought UK RMBS or covered bonds either now defunct, as in the case of some leveraged investors such as SIVs, or no longer purchasing UK mortgage securities. Despite these concerns, the recovery in markets has encouraged the government to start to consider how it might reduce its financial exposure, so there has been much talk about "exit strategies".

At the same time, European Commission competition rulings have ordered a partial break-up of the organisations that have received government equity injections. These are also the banks which have been most dependent on government funding support, opening up the possibility that part of the government's exit strategy from funding may be achieved by selling loan books to new entrants to the UK mortgage market who have the credit standing to refinance these commitments without support.

For example, the sale of mortgage assets to a highly rated foreign bank or UK retailer might facilitate a relatively smooth refinancing of large chunks of government supported funding. But, sale to a new entrant without a strong credit rating would not offer the same refinancing opportunities. And sale to an entrant seeking to fund the assets with retail deposits will heighten competition in the retail deposit market still further, potentially threatening the profitability of some existing lenders.

These considerations are likely to influence the government's preferences when deciding which organisations are permitted to take advantage of this opportunity to expand and limit the field of potential bidders.

5. The Outlook for 2010-2015 – Finding a Route Back to Normality

(a) Prerequisites for a Return of Wholesale Investors

The outlook for the next few years is clouded in uncertainty given the government's desire to exit from its huge funding support, the pressure for major regulatory changes and the fragility of sentiment in the financial system and wider economy.

One way of approaching the question of what is likely to happen is to ask 'what are the prerequisites for the return of confidence on a scale that allows wholesale debt markets to return to something like normality, allowing the government to start to exit its funding support, and how likely are these prerequisites to be met?'

Aside from the requirement that government support is not withdrawn too rapidly, the three main prerequisites I see as necessary for a return of institutional debt investors are:

- That the macro-economy and property market have stabilised.
- Confidence that the legacy issues associated with pre-crisis lending are not going to undermine future financial stability.
- Lenders with sustainable future profitability.

I consider each in turn:

(i) Outlook for the Macro-economy and Housing Market

Recent data show that most of the leading economies have now pulled out of recession and economic indicators in the UK have been significantly more positive in recent months. There is also growing evidence of a recovery in the UK housing market, most notably shown by surprisingly strong house price figures over the past 9 months (see Figure 4 on next page).

So, on the surface, this precondition for a return of investor confidence seems to be increasingly in place, supported by the sense that the financial crisis is behind us and that the fall in house prices in 2007 - 2008 was a sufficient adjustment to provide some comfort that overvaluation is now less of a concern.

But, investor sentiment is fragile. Fear of a double dip remains, centred on the need for fiscal retrenchment, the possible impact of a normalising of interest rates on over-indebted consumers, and a sense that house prices remain at excessive levels relative to incomes.

And investor sentiment will be vulnerable to further shocks, not least because the economic imbalances that many commentators believe were the underlying cause of the financial crisis have not disappeared. Concerns seem to centre on the risk that new asset price bubbles are forming, sparked by low interest rates, and that fiscal deficits are so large in some countries that they could provoke a loss of investor confidence in countries/currencies. This is clearly not the ideal background for re-establishing healthy wholesale funding markets.

(ii) Mortgage Market Legacy Issues

Legacy issues in the UK mortgage market take several forms:

(a) There is the issue of pre-crisis lending to individuals whose credit standing is now too poor to allow them to qualify for a mortgage in today's stricter underwriting environment. This may be either because they were already impaired credit borrowers when they took out their loans, or because they have subsequently seen a deterioration in their credit score or financial status.

There has been quite a lot of attention paid to the difficulties this has created for the affected consumers who are 'stranded' on their existing deal. But, given that most impaired credit loans have interest rates linked either to 3 month Libor or Bank rate, most borrowers will have benefitted from large reductions in their monthly payments. Even if they could qualify for a mortgage, it is likely to be more expensive than their existing reversionary rate. Less attention has been paid to the impact on lenders who now have a cohort of inert customers who are paying interest rates that do not compensate for their risk profile.

(b) Reductions in house prices, coupled with lenders reducing their maximum LTVs, have pushed a significant number of borrowers into a position where they do not have the equity to remortgage. Again, the focus has been on the borrower, but for lenders this has created a cohort of customers with limited ability to remortgage away, who constitute relatively high risks, many of whom are on rates pegged at extremely thin spreads over Bank rate.

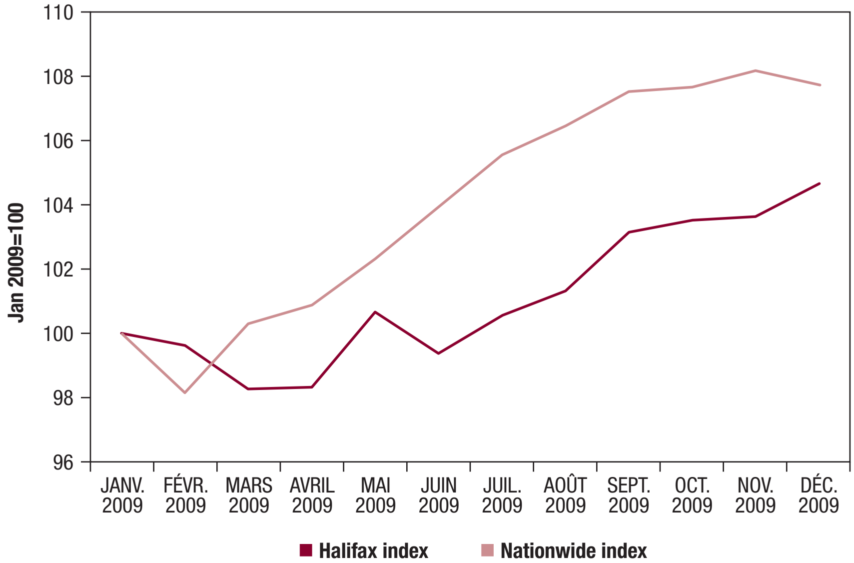
(c) The low rate tracker mortgage products offered to borrowers in the pre-crisis period have created a legacy issue of their own. In contrast to the 'can't moves' of (a) and (b) above, these customers could remortgage but have an incentive not to move their loan. These borrowers are unprofitable for the lender, not because of concerns about their credit quality but simply because they are locked into borrowing costs that are often below those of the lenders themselves.

From a lender perspective, the above cohorts of borrowers are all unprofitable on a risk adjusted basis, and are likely to exhibit low redemption rates, suggesting the drag they will exert on lender profitability could be drawn out. As Figure 5 illustrates, these legacy issues, together with the reduction in housing transactions, are already having a dramatic effect on mortgage redemption rates, with the average life of a mortgage going from around 4 years in mid 2007 to 10 years by Q2 2009.

(iii) The Outlook for Lender Profitability

Arguably the most vital precondition for lenders to be able to raise funds under their own name in the wholesale markets (through a senior unsecured or covered bond) is that they are sustainably profitable.

Figure 4 **UK House Prices During 2009**



Source: Halifax and Nationwide Building Society

An analogous requirement exists in the RMBS market, but here it is specific to the mortgages backing the bonds. The yield on the mortgages being funded by the RMBS must be high enough to cover funding costs. If this condition is not met, the lender will have to provide additional cash flow to support the transaction. It may chose to do this for strategic reasons, as Lloyds has shown in re-opening the UK RMBS market, but that cannot be sustainable indefinitely.

Has lender profitability been restored?

Lending rates have been rising relative to Libor across a range of banking markets, but it is unclear whether this has resulted in any gain in lender profitability, because lenders' funding costs have also been rising relative to Libor. And they face higher regulatory capital and liquidity requirements.

BoE data show that the average interest rate on new variable rate mortgage deals has indeed climbed significantly relative to 3 month Libor, as shown by the blue line in Figure 6, and reached 2.39% by August 2009, having been negative as recently as 2008.

Even for existing borrowers, shown in the pink line, there has been an increase in the spread over 3 month Libor despite the large number of borrowers locked into Bank rate trackers.

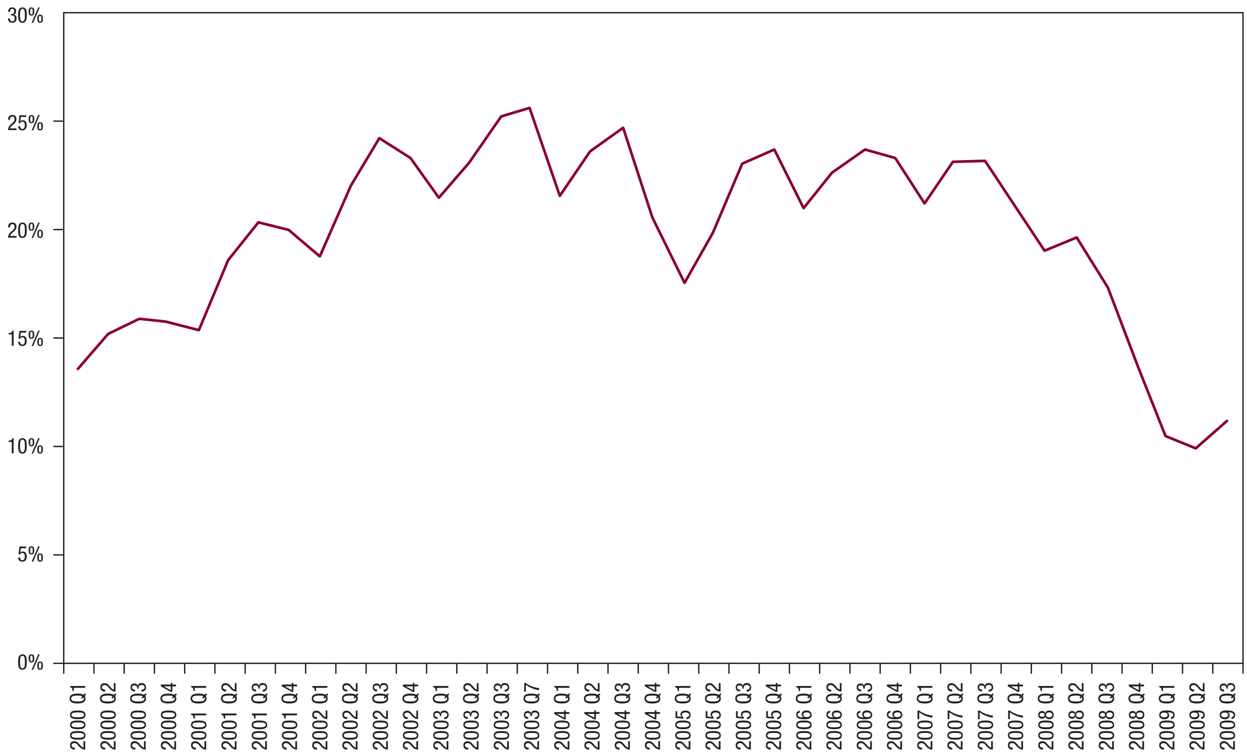
This reflects two phenomena. Firstly, many lenders have discretion not to reduce their standard variable rates (SVRs) in line with Bank rate, and have kept their SVRs at levels that provide a good spread over 3 month Libor now that Libor has come broadly back into line with Bank rate.

Secondly, there is a constant flow of borrowers going from discounted introductory rates to higher reversionary rates. In a normal market, this would be expected to be broadly offset by borrowers remortgaging off the reversionary rate on to another discounted rate, either with a different lender or via an offer from their existing lender. But, the rise in spreads on new mortgage deals since the financial crisis started has greatly reduced the incentive to remortgage, so on average fewer and fewer customers are on introductory rates as they move on to reversionary rates and stay there.

It seems that the rise in mortgage spreads over Libor is not yet sufficient to attract investors who are prepared to fund mortgages on a stand alone basis (i.e. through the RMBS market). For example, in Lloyds' recent RMBS deal investors received 3 month Libor plus 125bp for AAA paper with a put option[5] to investors which amounts to a claim on Lloyds itself. The industry average spread for all lenders on the existing mortgage book would, at some 160bp over Libor, be unable to cover a funding cost of this level once the implicit cost of the lower rated tranches that were retained is factored in.

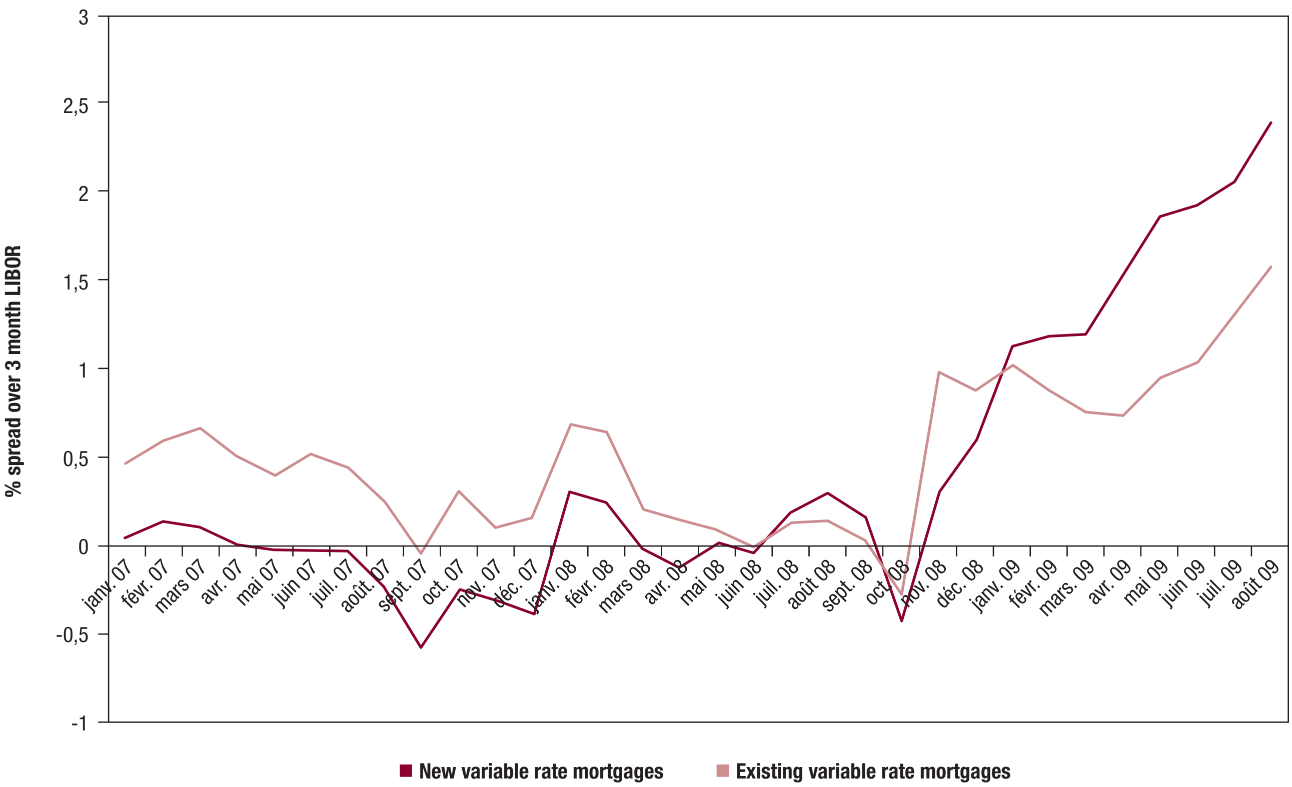
[5] The put option gives the bondholder the right to have the bonds redeemed at par by Lloyds Banking Group

Figure 5 **Mortgage Repayment Rate**



Source: CML

Figure 6 **Spreads over 3 Month Libor on New and Existing mortgages**



Source: Bank of England

Even on new mortgage business, where the average spread over Libor across the industry is some 240bp, this may still not be sufficient to ensure a reasonable spread over current all-in funding costs. If you consider the cost of funding a mortgage portfolio entirely through the RMBS market, thus taking account of the probable cost of the lower rated RMBS notes, the all-in cost might well eat up the entire spread over Libor on new loans.

A conclusion you could draw, based on the price the securitisation market would demand to fully fund a mortgage portfolio, is that UK mortgages are currently barely profitable, as the rise in mortgage rates compared to Libor has not caught up with the extra return RMBS investors now demand.

Retail deposit rates have also been at an unprecedented premium to Bank rate or Libor as deposit takers that are starved of wholesale funds compete for retail money as a substitute. This has meant that retail funded lenders have found it equally difficult to generate a profit from mortgages.

Only covered bond funding seems currently to offer lenders a decent spread on their mortgage lending, given that Barclays' covered bond was issued at 60bp over mid swaps, but the volume of funds raised has been modest. So, at present, it does not seem that underlying lender mortgage profitability has improved very much.

Looking ahead, unless Libor rises relative to Bank rate, the lack of mortgage churn should drive a further rise in average spreads on existing mortgages as customers move to reversionary rates. Also, most lenders have discretion to raise SVR relative to Libor, although such a move can provoke an adverse media reaction as was seen with Skipton Building Society's decision to remove the cap on its SVR mortgage in the current exceptional circumstances[6].

But, lenders' average cost of wholesale funds is also likely to rise further as bonds issued before the financial crisis at tight spreads gradually redeem and need to be refinanced at today's higher spreads. 2011 could be a particularly difficult year as SLS funds, which are effectively priced at 3 month Libor, will have to be replaced. This could further heighten competition for both wholesale and retail funds.

So, it is also not clear that further increases in mortgage profitability are in the pipeline, particularly against a background of elevated arrears and repossessions. Moreover, lenders remain vulnerable to further spikes in Libor, which would reduce spreads on tracker rate products and SVRs.

However, investor sentiment has been volatile and further reductions in the spreads they demand in the senior unsecured, RMBS and covered bond markets could boost lender profitability if they are not passed on to consumers in lower mortgage rates.

(iv) Wider Banking Markets

These potential investor concerns are mirrored in other lending markets, for example with commercial property lending and lending to corporate buyouts. The concern about loans made at the top of the commercial property market is an obvious example.

For the more diversified banks, these issues can be as or more important than those of residential mortgage lending, but the principles are the same. Investors will want to know that lenders can sustain profits going forward and overcome issues associated with 'legacy' loans.

(v) Concluding Thoughts on the Return of Investor Confidence

Given the scale of the global financial shock of 2007 - 2009, the recovery in conditions in the financial system has been heartening. Investor sentiment has been underpinned by an improving economic outlook, and while it is accepted that legacy issues will have to be worked through over time, it is also widely felt that lenders can remain profitable overall despite the pressures from higher funding costs outlined above. The central concern will be with the refinancing of £300bn of government support provided through the SLS and CGS, and re-opening competition across more lenders.

But, more strategically, policymakers now have a unique opportunity to bolster the architecture of funding markets and ensure that collateralised instruments such as RMBS and covered bonds are put on a more level playing field with retail deposits and senior unsecured bonds. This could take a number of different forms. By indicating greater support for the UK RMBS and covered bond markets, the government can bolster investor confidence, thereby decreasing lender funding costs and potentially speeding up the time frame over which government can withdraw its funding.

(b) The Scale of Funding Markets Going Forward

Even if these prerequisites are met, and investors become comfortable with investing in UK mortgage funding instruments again, it cannot be assumed that these markets will return to their previous size. A number of factors will limit the capacity of the market to absorb new issuance.

One is the disappearance of leveraged vehicles that bought RMBS, such as SIVs and conduits, using short term wholesale funds. This model is unlikely to reappear for the time being while hedge funds' use of leverage is likely to be restricted by greater caution on the part of the banks that provide the debt.

And perhaps more seriously, banks themselves may have a permanently lower appetite to invest in RMBS and covered bonds because these were bought in part as treasury assets for their safety and liquidity but have proven to be potentially much less liquid at times of stress than previously thought.

In addition, the new liquidity rules in the UK (that may be replicated in other countries) will require banks and building societies to hold government bonds in their liquidity portfolios rather than other highly rated instruments, which will further reduce bank investment in RMBS and covered bonds. Where banks have bond trading portfolios, they will also be faced with significantly higher regulatory capital requirements, which might be expected to curtail the size of these portfolios.

New investor groups will need to be found to fill the gap left by the diminished role of leverage investors. One hope is that pension funds and similar cash investment funds can be attracted by the higher spreads on offer. Now that Libor is not much above 0.5%, these funds' traditional aversion to floating rate paper may also be less of a problem for two reasons.

Firstly, the spread over Libor is a much larger proportion of the total coupon now, so paper which pays a good spread over Libor will look attractive in this interest rate environment. And, second, Libor is close to its practical floor of 0%, meaning that although the paper is floating rate, it effectively offers the investor a collar (the coupon is almost guaranteed not to fall by more than 0.5%).

It is unclear how large a contribution these cash investors can make, but market experts seem to agree that they cannot fully replace the gap left by the reduced presence of leveraged investors, at least in the short-to-medium term.

[6] For example http://www.walletpop.co.uk/2010/01/21/skipton-tears-up-mortgage-contracts-and-raises-svr/.

Thus, although there is enormous uncertainty as to how large investor demand might be, the gross volume of issuance is unlikely to be anything like as high as in the 2000 - 2007 period over the next 5 years. This, together with the slow expected growth of retail deposits, points to an on-going need for government support beyond the time limits currently in place.

(c) Options for Closing the Funding Gap

How will the funding gap be closed as the SLS and CGS terminate? Here we consider the possible ways in which this can take place.

(i) Roll-over of Government Support Mechanisms

The most straightforward solution to the refinancing risk associated with the end of the SLS and CGS is for the government to accept that private sector sources will not be sufficient, and commit to rolling over these schemes, or at least replacing them with another scheme that fulfils the same function. The discount window, which was introduced in 2008 to provide deposit takers with access to cash in exchange for a wide range of securities, could be the vehicle to replace the SLS.

Set up as the new permanent mechanism for providing liquidity insurance, the duration of its funding was extended on an emergency basis from 3 months to 1 year soon after its launch. It would be a possible substitute for the SLS.

(ii) Extend Quantitative Easing

An alternative for the government would be to expand quantitative easing to the point where new commercial deposits could fully replace the quantum of SLS and CGS funds. However, this may be an unattractive solution, because there is no mechanism by which the government can ensure that these deposits are placed with the institutions that face refinancing risk, so the risk of further instability in particular institutions would remain a concern.

(iii) Replace with Funds Raised Privately

The scale of funds provided through the SLS and CGS is such that it is difficult to see how unsupported markets can refinance them. Net RMBS and covered bond issuance in the strong market conditions of 2000 - 2007 was £35bn pa while retail deposit growth in 2009 was £59bn[7]. This implies a shortfall in 2011 alone of at least £100bn. While the government should take steps to encourage the revival of private sector wholesale funding, it should be under no illusion that these markets alone can provide a rapid solution.

(iv) Shrink Balance Sheets

If government funding support is not extended in sufficient volume, and capital markets are unable to make up the shortfall, lenders that are dependent on government funding will be faced with the option of either trying to compete more aggressively for a largely fixed pool of retail deposits or shrinking their assets.

Lenders can shrink their loan assets by curtailing new lending as existing loans redeem. This process has already been evident in the corporate debt market, where for example the total outstanding balance of bank and building society lending to the manufacturing sector has been shrinking since Q4 2008. But, in aggregate, lenders can only shrink their balance sheets if the end borrower reduces indebtedness or finds substitute forms of debt.

Many companies can tap the capital markets themselves and the reduction in bank lending to corporates has been driven by a switch from bank borrowing to bond issuance by some companies. Companies can also pay off debt through restructuring or asset sales.

But, for ordinary mortgage borrowers, there is no practical option of directly accessing the capital markets or selling assets, so if lenders' aggregate balance sheet capacity were to shrink, the only practical mechanism would be for borrowers to repay debt by saving. This would be a painful process where credit supply would need to be restricted until outstanding household mortgage debt had shrunk sufficiently.

Since households' ability to repay debt is constrained by their lack of access to alternative sources of debt, the strain is likely to fall disproportionately on those seeking new loans. This suggests a scenario where existing borrowers gradually pay down their debts while new loans are in very short supply, limiting the ability of potential first time buyers to enter the market, or families to trade up as circumstances dictate, much as we have seen since 2007.

6. Conclusion: The Balancing Act Ahead

The rapid growth of wholesale funding in the 2000-2007 period left the UK mortgage market dependent on leveraged and overseas investors. The events of 2007-2009 have shown that this created a serious vulnerability that required government to step in and funding the market to the tune of over £300bn to stabilise lenders' balance sheets. A question mark remains over what form of funding will ultimately replace this support.

The conclusion must be that some extension of government support is almost certain to be needed from 2011 onwards. The later government leaves an announcement of an extension, the more it risks creating uncertainty for lenders, which runs the risk of either provoking more financial instability as investors become nervous or reducing lenders' willingness to extend new credit.

But, the government will face a difficult balancing act. If support is withdrawn too quickly, credit conditions will tighten unnecessarily but, if government is too slow in withdrawing funds, it runs the risks of delaying the re-emergence of functioning markets by providing lenders with an easier option not to issue.

However, the Treasury and BoE can control the withdrawal of their support not only through its quantum but also through the price charged and, in the case of repo facilities provided by the BoE, through the haircuts it sets. So the government should be able to limit the risk of dependence on its schemes without risking a renewed under supply of credit.

The extent to which wholesale funding can fill the gap as government withdraws support depends on investors' perception of its safety, which ironically itself depends in part on whether investors believe government will come to their aid. At least the credit performance of UK mortgages has remained exemplary and this should bolster the UK's reputation in global funding markets.

[7] Bank of England data