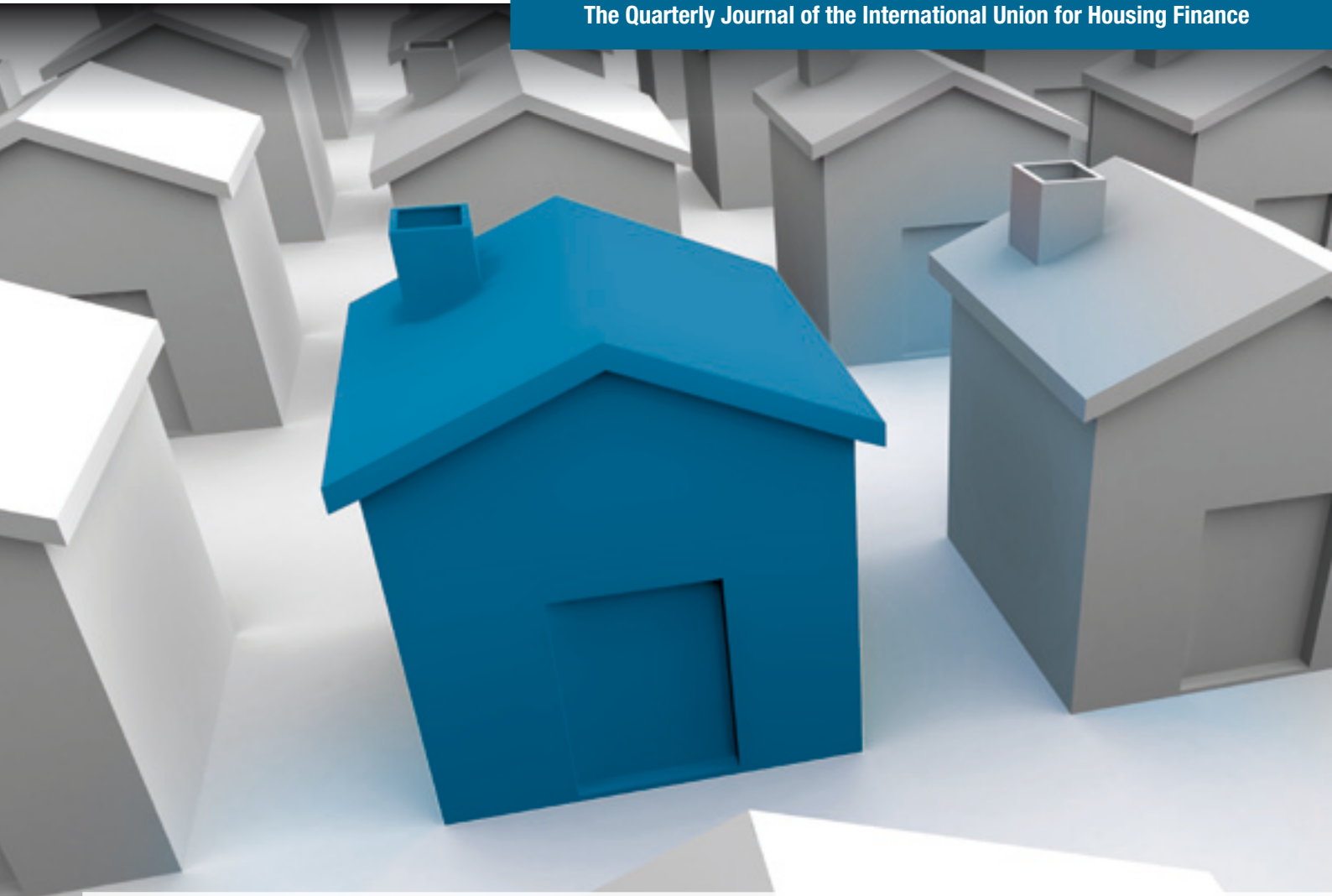


# HOUSING FINANCE INTERNATIONAL

The Quarterly Journal of the International Union for Housing Finance



- ➔ **International Trends in Owner-Occupation In the Light of the Financial Crisis**
- ➔ **The Implications of the Credit Boom and Bust on Development and Urban Regeneration in Riga**
- ➔ **Analysis of Fluctuation in Housing Prices in Iran**
- ➔ **Financing Eco-Housing in India: A Review**
- ➔ **The Impact of the Macro-Economic Environment on Institutional Housing Finance in Ghana**
- ➔ **Indicators of an Integrated Rental Market in Austria**



# International Union for Housing Finance

## Housing Finance International

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# Editor's Introduction

↳ By Andrew Heywood

As the shocks from the latest round of the Euro crisis continue to reverberate, leaving significant uncertainty about future monetary stability, housing finance commentators are attempting to assess the implications for housing and mortgage markets in Europe. Unsurprisingly the consensus is that the implications are likely to be negative, and investor appetite to fund mortgage-backed securities is unlikely to be enhanced as a result of recent events. In addition, further cuts to Government expenditure in affected countries plus stronger downward pressure on personal incomes combined with less job security can only tend to dampen markets further.

Ireland has been at the centre of the latest crisis. After decades of rapid growth Irish consumers are now facing a prolonged period of unparalleled austerity. One interesting question about the implications for Irish housing and mortgage markets concerns tenure balance. At just under 80% Ireland has one of the highest rates of homeownership in Europe outside of some of the new member states. Inevitably the question now arises as to whether affordability pressures will be aggravated by falling incomes and job losses, resulting in real decline in home ownership. If home ownership falls, which tenure will grow in response? It is difficult to see an expansion in social renting within projected Government expenditure constraints and it is not yet clear to what extent investment in private renting will fill the gap.

Tenure and home ownership are themes of many of the articles in this issue of HFI. We are particularly pleased to lead off with an article by Christine Whitehead *International trends in owner occupation in the light of the financial crisis*. Christine updates and builds on previous studies by her and others, to look at the changing picture in terms of home ownership levels. Drawing on data from a cross section of European countries plus the US, Canada, Australia and New Zealand, she analyses recent

tendencies for home ownership rates to plateau out, or even fall, although at very different absolute levels. Christine looks at a range of factors including cohort effects, economic conditions and Government policy. This is an important article at the right time.

In his article *The implications of the credit boom and bust on development and urban regeneration in Riga*, Guntis Solks focuses on Riga to examine the rapid development of housing and mortgage markets in Latvia in the period to 2008 and the subsequent contraction. The article identifies a period of rapid economic growth and a major increase in mortgage lending leading to a house price bubble, and overheated development programmes. When the bubble burst house prices in Riga fell by over 74% in the period to September 2009. There have since been modest signs of some market recovery although the future course of events remains uncertain.

The causes of fluctuations in house prices is the theme of Hassan Gholipour Fereidouni's article *Analysis of fluctuations in housing prices in Iran*. Taking the period 1993-2006 Fereidouni demonstrates wide fluctuations in the rate of house price growth against a strong long-term average of 5.8%, ahead of the average growth in GDP. He examines the effect of a number of factors on price fluctuations including expansion of private credit, oil price increases, increases in construction costs, availability of loans for construction, and correlation of fluctuations with returns on the stock market. His conclusions represent useful confirmation of the effects of several factors and in one case the results of his analysis are unexpected. Overall the article makes a helpful addition to our wider understanding of housing markets as well as that of Iran.

As readers may be aware, the 28<sup>th</sup> IUHF World Congress is now scheduled to take place in India between the 12<sup>th</sup> and the 14<sup>th</sup> October 2011. The largest conference of its kind, the World Congress dates back to 1914. As one of several articles on India in the run-up to

next year's Congress, *Financing eco-housing in India: a review*, makes a timely contribution to an important subject that risks being neglected as public, corporate and individual financial constraints build up - at least in the West. The article sets out the benefits of eco-housing in an Indian context in terms of reducing CO<sub>2</sub> emissions, cutting energy bills and facilitating better access to power. The authors then go on to discuss the way housing finance is adapting to eco-housing, and point to a number of initiatives in relation to new and existing buildings including micro-finance and use of eco-housing mortgages.

Nicholas Addai Boamah examines the pre-conditions for a sustainable housing finance system in his article *The impact of the macro-economic environment on institutional housing finance in Ghana*. Boamah shows the negative effects of high inflation, exchange rate instability, and fluctuations in interest rates on the costs and risks associated with lending in Ghana. He points to the need for these macro-economic problems to be resolved if Ghana is to develop a mature housing finance market; there were only c. 250 mortgage loans granted in Ghana in 2000.

*Indicators of an integrated rental market in Austria* may not be the most revealing title to a non-Austrian. Nevertheless, behind that title is a fascinating study of the Austrian rental market with a focus on the rise of Limited Profit Housing Associations (LPHAs). Encouraged via supply-side subsidies with their origins under Franz Joseph I, LPHAs now control some 13% of residential stock in Austria. The article considers the degree to which Austrian social and private rental markets can be considered integrated with full competition between those sub-sectors. The authors, Alexis Mundt and Wolfgang Amann will already be known and respected by readers of HFI.

Andrew Heywood

# Contributors' Biographies

**Ms Christine Whitehead** is Professor in Housing in the London Department of Economics at the London School of Economics and has been Director of the Cambridge Centre for Housing and Planning Research, University of Cambridge for twenty years. Her research interests are in housing economics and finance as well as more general urban and policy issues. Her latest publication, with Sarah Monk, "Making housing more affordable: the role of intermediate markets", was published in September 2010 by Wiley Blackwell.

**Mr Guntis Šolks** is a doctoral student and researcher in University of Latvia, Faculty of Geography and Earth Sciences. His research interests are related to urban geography, focusing on re-urbanisation processes and urban regeneration.

**Mr Hassan Gholipour Fereidouni** is a PhD student in international real estate investment at the School of Management at Universiti Sains Malaysia (USM). His research interests are focused on international economics. He received his B.A. degree in Economics from the University of Mazandaran and his MBA degree from Universiti Sains Malaysia (USM). He is an Iranian citizen. He can be contacted at: hassanhgf@gmail.com.

**Dr Nitin Pandit's** focus is on conceptualising and cultivating multi-disciplined approaches to scale-up energy efficiency practices as the President of the International Institute for Energy Conservation (IIEC). He has guided IIEC in implementing trend-setting programs including mainstreaming financial and technical mechanisms for energy efficient *Eco-Housing* in India. He is a Civil and Environmental Engineer with a Ph.D in Public Policy.

**Dr Mahesh Patankar**, Director in Market Innovations at Customized Energy Solutions (CES), has over 15 years experience in environment management and energy efficiency in Asia, Africa and Latin America. He leads energy market development efforts integrated with demand response and smart grids programs. Mahesh is a Chemical Engineer with a Masters in Financial Management and a PhD in Diffusion of Clean Technologies.

**Ms Ira Athale Prem**, Project Manager at the International Institute for Energy Conservation (IIEC), has worked in economic research and energy policy for over 5 years. At IIEC, she is working on EcoTRA- Eco-housing Trust and Retention Accounts, to develop a financial mechanism to promote energy and water conservation in Mumbai's residential buildings. Ira has Masters Degrees in Economics and Public Policy.

**Mr Nicholas Addai Boamah** is a lecturer in the Department of Real Estate and Land Management of the University for Development Studies, Ghana. He holds a BSc (Hons) in Land Economy (Kwame Nkrumah University of Science and Technology, Ghana), MPhil in Real Estate Finance (University of Cambridge, UK), and an MSc in Finance (Liverpool University, UK). His research interest is in housing finance, land markets, and corporate finance.

**Mr Alexis Mundt** is research associate at the Vienna based IIBW- Institute for Real Estate, Construction and Housing Ltd. with a focus on comparative housing policy and social housing in Europe.

Associate **Prof. Dr. Wolfgang Amann** is owner and director of the IIBW – Institute for Real Estate, Construction and Housing Ltd., based in Vienna/ Austria. He is a lecturer at FHW – University of Applied Sciences, Vienna. Dr. Amann is an expert consultant for the Austrian Parliament, (sub)coordinator of the working group "Legal aspects of building, land and planning" of the European Network for Housing Research (ENHR) and member of the "Real Estate Market Advisory Group" of UNECE – United Nations Economic Commission for Europe.

# International Trends in Owner-Occupation: In the Light of the Financial Crisis

↳ By Christine M E Whitehead

## 1. Introduction: the financial crisis and owner-occupation

One outcome of the global financial crisis has been a decline in owner-occupation in many countries. This has particularly hit those countries where private sector funding has been readily available as a result of the deregulation of housing and more general financing systems. In some countries there was also a suggestion that policy to encourage owner-occupation might have pushed rates too far for sustainability. The two main reasons for the decline are of course not hard to identify: the increase in foreclosures, as households have been unable to keep up their repayments; and the near closure of the wholesales mortgage backed securities market associated with the wider credit crunch. This has meant that even households wanting to buy and able to pay, at least by traditional criteria, have not been able to obtain a mortgage. In turn there are two distinct questions now being asked: will owner-occupation return to the levels observed in mid decade once economies return to something like normal: and should governments still continue to encourage the expansion of owner-occupation in the ways that they have been in the past. But there is also a more fundamental question: are the underlying trends in owner-occupation quite as straightforward as has been assumed – or were there anyway changes in behaviour which might modify future trajectories?

In this paper we draw on a number of earlier studies and secondary sources to examine first how owner-occupation rates and their growth have varied across countries; second, what has happened in and after earlier crises; third, whether there are pointers to the future from underlying trends; and finally where policy might go in the future.

## 2. Evidence from earlier studies

Some fifteen years ago, in 1996, 'Is the UK Different?' looked at the pattern of tenure across European countries and how these had changed since 1945 (Freeman et al, 1996). The main reason for making these comparisons was to query how much tenure mix and the owner-occupation rate were the outcomes of country specific regulation, taxation and subsidy. Table 1 reproduces the figures up to 1990 for some of the major OECD countries.

The data suggested that the proportion of owner-occupiers had risen across all major countries except Japan, Canada and Germany – with Germany's decline associated particularly with reunification. But it also suggested that there were large country differences – and that owner-occupation levels were beginning to stabilise.

Overall there appeared to be three groups of countries:

- those with less than 50% owner-occupation in 1990 notably Germany, the Netherlands, Sweden and also Switzerland, all of which have had consistently low levels through the post war period;
- at the other extreme those with 70% or above in Spain, Ireland, Australia and also Iceland (the highest at 88%), New Zealand and Greece among OECD countries – all of which had high rates throughout the post war period (and would have included Finland if it had not been for the property led crisis of the late 1980s);
- the countries in between, which included particularly the USA, the UK, France, and most of the rest of Europe from Scandinavia to the South which had showed considerable increases over the period.

The UK stood out as having made the greatest jump from 1970 to 1990 with owner-occupation growing by over 15% in that period, as a result not only of income growth but also of both deregulation of the finance market and housing policy – notably through the Right to Buy, by which more than a million homes were transferred into owner-occupation in the 1980s.

As importantly the mid 1990s study examined the extent to which owner-occupation rates for particular types of household differed between countries. The evidence suggested that the big variations came among younger households. In countries with smaller sectors younger households tended to be private tenants. However among settled middle aged households the proportions were very similar across countries with very different owner-occupation rates – even where renting was the majority tenure. The implication was that owner-occupation is the tenure of choice for those looking for a long term home and who are able to pay. Equally there was some evidence that tenure was related to type of dwellings – with secure middle aged households disproportionately living in single family homes and renting concentrated in apartments.

One of the report's authors, Alan Holmans, went on to examine the trends in four Anglo-Saxon countries, the USA, Canada, Australia and the UK, in the context of the severe recession, especially in the UK, in the early 1990s. He also examined the more fundamental question of whether the growth of owner-occupation had run up against economic and social limits (Holmans, 2000). An important conclusion was that the UK was atypical in that it reached over 60% owner-occupation a quarter of a century later than the other four countries. Moreover both Australia and Canada had experienced significant declines in owner-occupation – Canada in the 1960s, and Australia in the 1970s, while both the USA and

New Zealand experienced small falls in the early 1990s. One explanation for the varying trends lay in the extent of in-migration – which sometimes led to falls in proportions while absolute numbers were actually continuing to increase quite rapidly. As important is the impact of cohorts working through the system. In all the countries other than the UK older households were much more likely to be owner-occupiers simply because they had been able to buy when they were younger, in a way that did not occur in the UK until the 1970s. There was thus an inbuilt expectation that owner-occupation rates among the older generation in the UK would continue to rise for some years.

The evidence also suggested that owner-occupation was beginning to fall among younger households, even before the crisis of the late 1980s and early 1990s, in both Australia and the United States – and that owner-occupation among younger households also fell significantly after the financial crisis in the UK. So looking further into the future the cohort effects could be expected to reduce expansionary pressure. Even so, the continued growth in population and household numbers in all four countries meant that absolute numbers might well not fall.

A 2004 study repeated much of the analysis of the original mid 1990s report (Scanlon & Whitehead, 2004). In the early 2000s (column 2, Table 2 taken from that report), showed that the biggest change had been with respect to the transition economies, where owner-occupation rates had jumped ahead of more traditional high owner-occupation countries such as Iceland, Portugal, Greece and indeed Ireland (77% in 2003) and in some cases Spain (84% in 2003). This reflected policies of restitution and privatisation which in most transition countries, except the Czech Republic and to a lesser extent Poland, left only small residual social rented and tiny private rented sectors.

Among more traditional European countries there had been consistent, if slower, growth except in Finland which saw significant decline, which had been affected by severe recession, and in Denmark, where the proportion of younger households in owner-occupation fell very significantly over the decade. On the other hand, in some countries, notably Spain, and to a lesser extent the Netherlands, there was relatively rapid growth, at least in part, as a result of government policy, including encouraging social tenants to buy.

Owner-occupation rates in the Anglo-Saxon countries followed relatively similar trends with some increases, probably mainly as a result of cohort effects, and continuing signs

**Table 1: Proportion of all households in owner-occupation – historical data for OECD countries**

Country	1945/50	1960	1970	1980	1990
USA	57	64	65	64	64
UK	29	42	49	56	65
Sweden	38	36	35	41	42
Spain	NA	NA	64	73	76
Netherlands	28	29	35	42	44
Japan	NA	71	59	62	61
Ireland	NA	NA	71	76	81
Germany	NA	NA	36	40	38
France	NA	41	45	51	54
Finland	56	57	59	65	67
Canada	66	66	66	62	63
Australia	53	63	67	71	70

*Note:* the level of % amongst other OECD countries in 1990 ranges from 30% in Switzerland to 88% in Iceland. Portugal, Norway, Denmark and Austria had between 50-60%; Luxembourg, Italy and Belgium from 65-70% and New Zealand and Greece between 70-80%.

*Source:* Helman E (1994)

**Table 2: Owner-occupation rates in the twenty-first century**

Country	Early 2000s	Latest
Hungary	92 (2003)	--
Lithuania	84 (2002)	97 (2008)
Spain	82 (2003)	85 (2008)
Slovenia	82 (2002)	82 (2006)
Greece	80 (2001)	80 (2009)
Iceland	78 (2003)	80-85 (2008)
Ireland	77 (2003)	74.5 (2009)
Portugal	76 (1999)	76 (2006)
Belgium	74 (1999)	76 (2006)
Australia	70 (1999)	67.4 (2010)
UK	70 (2001-2)	69.5 (2007)
USA	68 (2002)	67.2 (2009)
Canada	66 (2001)	66 (2008)
Finland	64 (2001)	59.0 (2008)
Austria	57 (2001)	56.2 (2009)
France	56 (2002)	57.4 (2007)
Sweden	55 (1997)	66.3 (2008)
Denmark	53 (1999)	54 (2009)
Netherlands	53 (1998)	57.2 (2008)
Czech Republic	47 (2001)	--
Germany	41 (2001)	--

*Sources:* Scanlon & Whitehead (2004); EMF (2010)

of stabilisation, especially in Australia and New Zealand. In the UK rates continued to rise quite rapidly, as higher owner-occupation cohorts replaced older groups who had continued to rent. At the same time however the proportions of first time buyers fell dramatically in the early 1990s (Whitehead with Gaus, 2007). In the USA on the other hand there was evidence that owner-occupation rates were holding up, against the expectations of commentators in the mid 1990s, at least in part because of the government's positive stance on owner-occupation.

The general picture suggested that economic conditions were important in slowing the growth in the early 1990s— or even reversing it, as in Finland. For instance, while owner-occupation in England continued to grow during the decade, there was evidence of a slight decline at the beginning of the financial crisis in 1989. Similar patterns were found in other western European countries. Country commentators suggested that where there were large-scale increases in the observed proportion of owner-occupiers in some countries there were also housing policy and fiscal changes, and that the general picture was more a slow continuation of past trends.

An important conclusion across many countries was that younger households were entering owner-occupation later, and that any growth tended to arise from increases in middle aged households and the consequent impact on older households' propensity to own their own homes. In Germany, for instance, there were continuing large differences between the East and the West – where even in the mid 1990s 77% of mid-life households were owner-occupiers and this proportion had continued to rise. In France, the proportion of younger households entering owner-occupation had fallen but mid-life households with children remained predominantly owner-occupiers. In Denmark, again, the pattern was similar with a declining proportion of younger households becoming owner-occupiers but the proportion of mid-life households owning continued to rise.

The latest data on owner-occupation rates has been collated by the European Mortgage Federation (EMF, 2010). The table covers the whole of the EU and its member states as well as a number of non-EU countries. It suggests that, overall, the picture is surprisingly similar

to the turn of the century. Many of the transition economies have owner-occupation rates in the high eighties up to the mid nineties, with only Poland, and especially the Czech Republic standing out as still below 50%. More traditional high owner-occupier countries such as Greece, Ireland, Portugal, Italy and Spain all had rates well over 70% but there was little evidence of continued growth. Iceland was atypical in seeing a further expansion in the early 2000s which was argued to be the outcome of deregulation and housing policy change. This proportion has now obviously fallen back probably by now to below 80%. Ireland on the other hand saw a decline in rates over the decade related both to the growth in private renting and to affordability issues.

In countries with lower owner-occupation rates, particularly Germany, the Netherlands and France, there was continued slow growth. But in many of the mid-range countries, notably the UK, the USA, Finland, Australia and New Zealand, there have been signs of some decline. Only in Sweden, where pro owner-occupation policies have been strong and, to a lesser degree, the Netherlands has there been significant growth. Both of these countries have been seen as in some ways following the UK, but twenty years later.

Overall, therefore the evidence is definitely of a slow down and sometimes a decline in the proportion of owner-occupiers, except where government policy continues to support expansion. These pressures were generally evident well before the particular pressures arising from the financial crisis – and indeed in most countries the statistical evidence on the effect of that crisis is still quite limited. The most important factors affecting longer term trends appear to relate to when significant growth in owner-occupation took place and the subsequent cohort effects.

It is also obvious that there is no clear sign of convergence between countries, or of a 'natural' limit to the owner-occupation rate. In this context a detailed study using the European Consumer Household Panel (ECHP) looked at the main observable determinants of equilibrium housing tenure outcomes across Europe between 1994 and 2001 (Hilber, 2007). With respect to household characteristics, the analysis suggested that age was the dominant variable, and the only one to

have a quantitatively positive impact explaining enormous variations, not just between countries, but also within countries and metropolitan areas.

Controlling for demographic and socio-economic attributes, the findings then suggested that the nature of the physical stock, notably with respect to house/apartment and size, was particularly important in determining both individual and regional owner-occupation rates. The share of public housing at the regional level was also highly significant. Perhaps unexpectedly, the impact of tax reforms, such as restrictions on mortgage tax relief, and more general differences in tax policies between six European countries were found to have little direct effect on the spatial variation of owner-occupation rates.

### 3. Trends in owner-occupation by age

We now turn to a more detailed examination of longer term trends in owner-occupation among younger households, as those will ultimately determine future owner-occupation rates. We concentrate on the evidence from the USA, the UK and Australia, three Anglo-Saxon countries where owner-occupation has been regarded as the tenure of choice; where government has supported growth; but where owner-occupation rates overall are stable or falling.

The country where the growth in owner-occupation has been longest affected by declines in rates among younger households is Australia. Overall, owner-occupation rose to around 70% by 1961. Thereafter rates have varied around that figure rather than following any obvious trajectory. The picture for younger households is very different.

Quoting from Yates (2010):

*"Figure 5 (here figure 1) shows that home ownership rates for those in the prime first home owner age groups began to decline in the mid 1970s, with that for the younger 24-29 year old cohort falling from 1976 and continued to do so for the next 20 years, and with the decline carrying through to the 30-34 year old cohort with a 5 year delay." Between 1981 and 2006, home ownership rates for households with a reference person aged between 25 and 34*

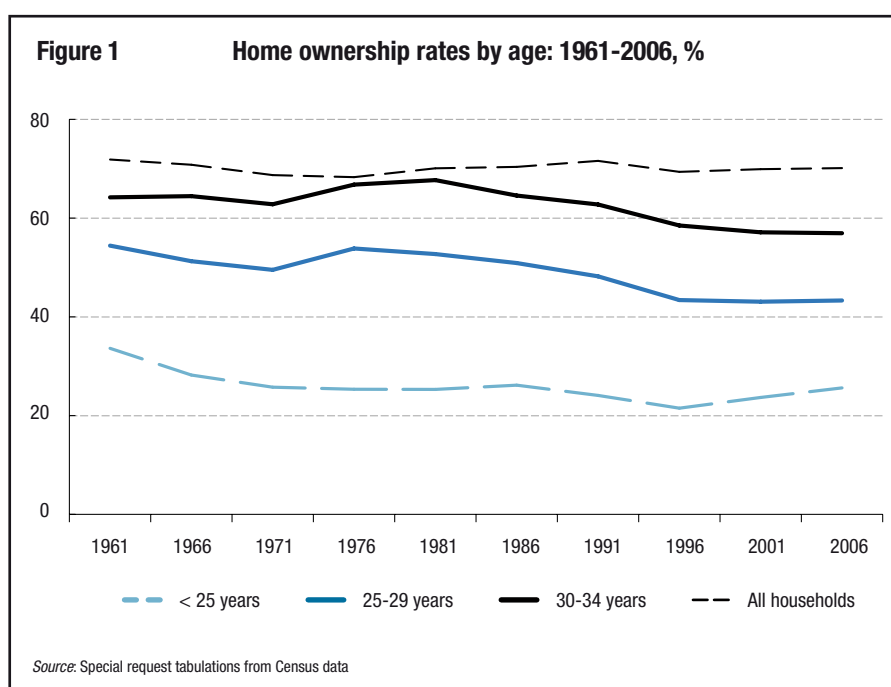
<sup>1</sup> Patterns in home ownership rates for the youngest group are less systematic because they apply to small numbers of households, and a disproportionate share of these become home owners without needing a mortgage.



years old declined by 10 percentage points to 51 per cent and by seven percentage points to 68 per cent for those between 35 and 44 years old (Yates et al, 2008: p32). Australia's home ownership rate has been relatively stable at its current level of 70 per cent because home ownership rates are higher amongst older cohorts (who entered into home ownership in an economically more benign climate) and because the population is ageing."

As Yates points out, this pattern is clearly not the result of short term financial crises but is more an outcome of longer term worsening trends in affordability, as house prices have risen more rapidly than incomes, and those without parental assistance have found it increasingly difficult to enter the market. Incentives for those on higher incomes to invest in housing worsened the situation for first time buyers. As importantly while there was a rapid increase in the real value of housing debt beginning around 2000, this was almost entirely concentrated among existing owners. This increase followed the 1999 change in the tax treatment of capital gains for individual investors, which encouraged highly geared investment in assets. Even prior to 2000, first home buyers played only a relatively minor part in contributing to housing demand, accounting on average for less than 20 per cent of housing finance commitments over the past two decades. By the mid 2000s, their share had fallen well below this figure. It increased after the crisis, as a result of the assistance to first time buyers which formed part of the government response to the global finance crisis, but has now fallen to below 15%. Thus the evidence from Australia shows first that it is longer run issues of affordability, and in particular competition from existing owners, that has limited first time buyer purchases – and that the credit crisis and the subsequent decline in economic activity (which have anyway both been very muted in Australia) have done little to affect these more fundamental trends.

Trends in England in many ways follow a similar pattern, although much later. Moreover these trends have been far more directly affected by two financial crises in the late 1980s/early 1990s and since 2007. The first, in particular, resulted in large numbers of foreclosures as well as far fewer first time buyers. Table 3 shows the overall pattern of owner-occupation with the largest expansion in the 1980s, in part as a result of the Right to Buy but also because of income growth and deregulation. Thereafter owner-occupation rates grew more slowly, mainly through cohort effects, as the proportions buying with a mortgage if anything fell. By 2001, when mortgage tax relief



**Table 3: Owner-occupation rates in England since 1981**

	Owner-occupiers		
	Own outright	Buying with a mortgage	All owner-occupiers
1981	25.0	32.2	57.2
1991	24.8	42.8	67.6
2001	28.8	41.5	70.4
2002	29.1	41.3	70.5
2003	29.7	41.2	70.9
2004	30.3	40.4	70.7
2005	30.3	40.3	70.7
2006	30.5	39.7	70.1
2007	30.7	38.9	69.6
2008	31.1	37.3	68.3
2008-09	31.4	36.5	67.9

Sources: 2001 to 2008 ONS Labour Force Survey; 2008-09 English Housing Survey – full household sample

was finally removed, growth rates stabilised at around 70%, although absolute numbers of owner-occupiers continued to increase. But by 2005 – when the economy suffered a short term downward blip – the proportion of owner-occupiers started to fall and has fallen more rapidly in the face of the current financial crisis.

Figure 2, also from Yates 2010, shows the pattern by age group. The decline in owner-occupation among younger households started during the financial crisis of the late 1980s/

early 1990s but showed no sign of slowing during the expansion of the 1990s. There was a slowdown in that decline in the early 2000s for the group in their late twenties – perhaps reflecting slightly improvements in affordability, including more intermediate housing provision, for that group. But overall the picture is of decline.

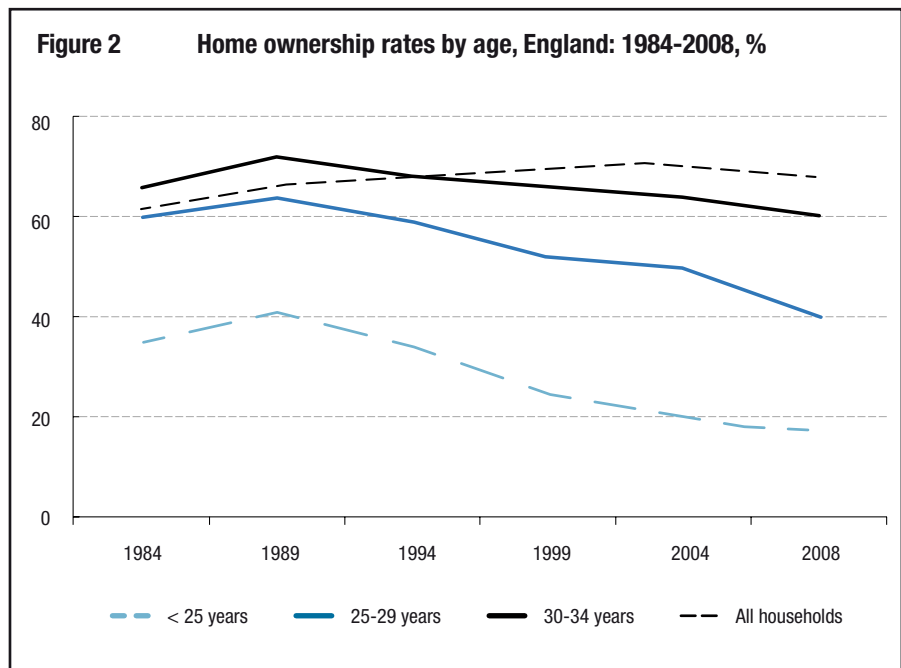
Moreover, as in Australia, while mortgage debt increased rapidly during the early 2000s and especially after 2005 it clearly funded existing

owners rather than first time buyers, often through interest only remortgaging which grew particularly rapidly (Whitehead with Gaus, 2007; Scanlon et al, 2008). This pattern continued until near the end of 2007 and the Northern Rock crisis (Whitehead & Scanlon, 2011). This suggests that there was little capacity among younger age groups to use the readily available funds to enter the market. On the other hand investment in the private rented sector grew rapidly, and improved their opportunities in the rental market.

Since that time more than one million households who might have been expected to enter owner-occupation have been unable to do so – or have chosen to remain as renters or living with friends and family. This is significant because increasing deposit requirements have offset any improvement in affordability arising from reductions in house prices and interest rates (Whitehead, 2011, forthcoming).

The evidence from other OECD countries where mortgage debt to GDP ratios also grew rapidly suggests similar patterns. Increasing debt was concentrated among those who already owned their own homes – even though this did not generally increase their debt to wealth ratios because of house price rises. For first time buyers on the other hand affordability issues made entry into owner-occupation increasingly difficult – until it was almost cut off by the credit crisis (Scanlon et al, 2008 and 2011 forthcoming; Andre, 2010).

The pattern in the United States has been rather different – at least in terms of timing. Owner-occupation rates in the USA stabilised below 65% in the 1970s, although the absolute numbers continued to rise quite quickly because of rapid increases in household numbers. In the 1990s owner-occupation rates increased again and that rise (often associated with strong policy encouragement particularly in the form of tax breaks) as well as easier lending continued through to the mid 2000s, when the owner-occupation rate reached 69% (table 4). However, before the financial crisis and without significant change in policy, the proportion began to fall slowly and is continuing to do so in the face of recession and foreclosures (it was 66.9% in the third quarter 2010 (US Census Bureau, 2010)). At the same time, as with many other OECD countries – but to a greater extent, indebtedness among existing owners rose very rapidly in the twenty first century to the extent that homeowner equity fell below 50% in 2007 for the first time in history (Girouard et al, 2006; André, 2010).



**Table 4: Owner-occupation by Age: USA**

	< 35	Overall
2000	40.7	67.5
2001	41.3	67.9
2002	41.3	67.9
2003	42.2	68.3
2004	43.1	69.0
2005	43.0	68.9
2006	42.6	68.8
2007	41.7	68.1
2008	41.0	67.8
2009	39.8	67.4

Sources: Table 12a Household estimates for the US by age of household, 2000-present, Current Population Survey/Housing Vacancy Survey H-111, Bureau of Census, Washington DC, 20733

In the United States, unlike Australia and the UK, in the 1990s and early 2000s, there were also continuing increases in the proportion of younger households in owner-occupation. This trend was only reversed at the same time as it was those for owner-occupation overall (table 4). Since then, the speed of decline has been faster among younger households, which is hardly surprising particularly given the difficulties of accessing funds since 2008, and the extent to which foreclosures are usually concentrated among those who have been owners for relatively short periods of time. It is far too early to say what the trajectory will be after the crisis works its way through the system – but on the evidence

from Australia and the UK this might not be fully reversed so there could be a longer term downward trend in owner-occupation among younger, particularly non family, households.

### 4. Conclusions: looking to the future

Reflecting on trends over the last few decades, owner-occupation appears to be the tenure of choice for stable, especially family, households. What varies most between countries is the timing of entry into owner-occupation and of the growth in owner-occupation rates,

and therefore the tenure of older households. Thus, countries like Australia, New Zealand and Ireland that had high rates of owner-occupation in the 1960s have particularly high rates among the older generations. Government policy initiatives can clearly have very large effects, as is evidenced in the transition economies in particular, but also in the UK where the Right to Buy transferred large numbers of mainly middle aged households into owner-occupation.

While owner-occupation has generally been growing overall, if more slowly than in the past, rates among younger households have been falling in many countries with more mature tenure structures. This trend is often attributed to issues of worsening affordability – but it is also associated with changing incentives for households (usually existing owner-occupiers) to invest in the private rented sector – further excluding first time buyers but providing some alternative source of housing.

As a result of the financial crisis, reductions in credit availability and the tightening of credit conditions have clearly constrained entry into owner-occupation at least for the short and medium term. What is less clear is whether owner-occupation rates will recover or even continue to expand into the longer term. The crisis of the late 1980s and early 1990s put longer term put downward pressure on rates in some countries and it maybe that this is the most likely scenario as the world economy, and global financial markets, recover. This is even more likely to be the case if financial regulation is tightened in the ways currently under discussion.

This leaves open the question of what governments should do. There are very real benefits to the public purse from owner-occupation, notably in terms of the reduced housing costs faced by older households. Housing is also most household's largest capital asset which can help pay for other services. But currently mechanisms to support the use of these assets involve reverse mortgages and other financial instruments which are currently both poor value for money and difficult to access. This is one area where governments may wish to intervene. But the most fundamental issues are associated with the real resource costs associated with different tenures. Here the evidence suggests that in many institutional structures, owner-occupation can be the most appropriate tenure for a majority of households. In others, however, the reverse is true. As a result we are likely to continue to observe very different owner-occupation rates even across countries with similar demographic conditions.

### References

André C (2010), "A Bird's Eye View of OECD Housing Markets", *OECD Economics Department Working Papers*, No. 746, Paris, OECD

European Mortgage Federation (2010) *Hypostat* 2009, Brussels, EMF

Freeman A, Holmans A and Whitehead C (1996) *Is the UK Different? International Comparisons of Tenure Patterns*, London, CML

Girouard N, Kennedy M & André C (2006) *Has the rise in debt made households more vulnerable?* Economics Department Working Paper No 535, Paris, OECD

Hedman E (1994) *Housing in Sweden in an International Perspective*, Karlskrona, Boverket

Hilber C (2007) 'The determinants of homeownership across Europe: panel data evidence', Paper presented at 54<sup>th</sup> Annual Meeting of the Regional Science Association, Savannah, November

Holmans, A E (2000) 'Owner-occupier households: recent trends in England and the USA, Australia, Canada and New Zealand', *Housing Finance* No 45, London, CML

Scanlon K & Whitehead C (2004) *International trends in housing tenure and mortgage finance*, London, CML

Scanlon K, Lunde J & Whitehead C (2008) 'Mortgage Product Innovation in Advanced Economies: More Choice, More Risk', *European Journal of Housing Policy*, June 2008, pp. 109-131

Scanlon K, Lunde J & Whitehead C (2011 forthcoming) 'Responding to the housing and financial crises: mortgage lending, mortgage products and government policies', *International Journal of Housing Policy*

US Census Bureau (2010) *Residential vacancies and owner-occupation, 3<sup>rd</sup> quarter 2010*, CB10-155, Washington, Bureau of Census

Whitehead C (2011) 'Owner-occupation in an increasingly uncertain world: the English experience' in Ronald R and Elsinga M *Beyond Homeownership: Housing, Welfare and Society*, London, Routledge

Whitehead C and Scanlon K (2011) Europe's Selective Housing Bubble: UK, in Bardhan A, Kroll C and Edelstein R *One World One Crisis: The Global Housing Market Meltdown*, Berkeley, University of California Press

Whitehead C with Gaus K (2007) *At Any Cost? Access to housing in a changing market place*, London, Shelter

Yates J (2010) 'Cyclical versus structural sustainability of home ownership: Is counter-cyclical intervention in housing markets enough?' Paper presented at the RICS Symposium: 'Meeting the Challenges of the Housing Economy: An International Perspective', Edinburgh 8-10 September

Yates J, Kendig H & Phillips B with Milligan V and Tanton R (2008) *Sustaining fair shares: the Australian housing system and intergenerational sustainability*, Australian Housing and Urban Research Institute, Final Report No 111 at <http://www.ahuri.edu.au>

# The Implications of the Credit Boom and Bust on Development and Urban Regeneration in Riga

↳ By Guntis Šolks<sup>1</sup>

## 1. Introduction

This paper explores the development of the housing and mortgage markets during the credit boom and bust in Latvia. The evolution of these markets was researched in the capital city of Latvia – Riga, which is the main economic, political and cultural centre in the country.

The case of Latvia is particularly interesting as it experienced the fastest growth of its national economy and the worst economic contraction of the European Union (EU) member states. In 2006 the economy expanded by 11.9%, followed by a 10.2% gross domestic product (GDP) rise in 2007 the total amount of which had more than doubled since the restoration of independence in 1991. The national average price of dwellings in Latvia rose by 228%, and Riga experienced price rises of 267% during the period of economic growth (2004-2007). High demand for dwellings and favourable credit conditions determined the rapid growth of a mortgage market and total mortgage debt rose to 36.5% of GDP in 2008 (GPG, 2010).

Riga and its suburban areas experienced a large construction boom that had significant impact on the spatial structure of the city so Riga is used as a prime example to illustrate the implications of the credit boom and bust in Latvia. As global inflation impacted on Latvia, a major economic contraction occurred which had a destructive effect on real estate, construction and the mortgage market sectors. The recovery of the economy was observed in early 2010, and there are optimistic prognoses for further development.

Initially the causes of growth in the housing and mortgage markets in Latvia are explored and described by looking at various economic and

social aspects characteristic to Latvia. The next section is a description of the development of these markets during the credit boom with a focus on the development of the spatial structure of Riga. This development in three different areas of the city is described separately, because the character of development was different in the city centre, suburbs and suburban territories of Riga. As development in the central part of Riga relates to urban regeneration processes, it is viewed from the regeneration aspect as well. In addition the main reasons for the credit bust and collapse of the housing market is described as well as the impact on development and urban regeneration processes in Riga. The next section describes the recent recovery of the economy in various aspects and gives an outlook for further development of the housing and mortgage markets.

## 2. Preconditions for the development of the housing market and the credit boom

Latvia was one of the fastest growing economies in the EU. After a successful transition to a market based economy, Latvia's average annual GDP growth from 1996 to 2000 was 5.7%, rising to 8.2% between 2001 and 2005. In 2006 the economy expanded by 11.9%, followed by a 10.2% GDP rise in 2007. Real GDP per capita has more than doubled since independence, to around €8.375 in 2007. Unemployment fell to 6% in 2007, down from 12% in 2002. Owner occupancy has risen dramatically, from 21% in 1990, to 87% in 2006. These conditions determined a rapid increase in demand for new premises, that resulted in the growth of mortgage lending as well (GPG, 2010).

Significant activity in the mortgage lending sector in Latvia began in the very late 1990s, when the national economy experienced growth after decline and stagnation, characteristic for the first years after the restoration of independence. During this period borrowing was not popular because of the relatively high interest rates (15%) offered by foreign banks operating in Latvia.

Rapid growth of mortgage lending was affected by various factors that refer to different sectors:

- factors related to the development of the economy of Latvia;
- factors related to the development of the banking sector in Latvia;
- factors related to the improvement in living standards of the population;
- factors related to the legislation and statutory norms (Andrejeva, 2006);
- factors related to psychological aspects.

The main factors determining the growth of mortgage lending activities related to the development of the economy of Latvia are: growth of the GDP, the development of the construction sector, and increasing transactions in the real estate sector (Andrejeva, 2006). This led to the rise in prices for real estate as demand was surpassing supply. The accession of Latvia to the EU (Andrejeva, 2006) in May 2004 also contributed to the development of the economy and the real estate sector, because it had a positive psychological effect on the population, who saw it as a guarantee for further development, and thus encouraged them to borrow.

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The contributing factors related to the banking sector were the low rates of the mortgage loans (6%-8%) (Hansabanka, 2002), the amount of loan to value, and favourable loan repayment terms and conditions. In addition, competition between banking institutions made mortgage lending affordable to more residents. The availability of credit resources was mostly provided by foreign money, mainly from Scandinavian countries and Russia (Andrejeva, 2006).

The improvement in living standards of the population secured a growth in the demand for properties, because residents had experienced a considerable increase in income. The insufficient existing housing stock which was mostly in poor physical condition, increased the desire of the population for more spacious and better quality apartments (Andrejeva, 2006).

Legislation and statutory regulations also contributed to the development of mortgage lending, because of a favourable tax system and state support programmes. The decision to abolish rent control in denationalized residential houses (Andrejeva, 2006) was a significant precondition for many residents to borrow in order to purchase their own property as an era of low rental prices came to an end. Residents of the denationalized houses were eligible to receive a special allowance from the municipality when they agreed to leave their flat, which they were able to invest in new property.

Psychological factors were an important precondition for the growth of mortgage lending, because they significantly affected public opinion. The assumption that every Latvian wanted to have his own house determined sales growth and the rise of owner occupancy. The banking sector used aggressive marketing methods to encourage residents to borrow in order to purchase properties. Borrowers were confident about their financial situation, because their incomes were gradually increasing and they were sure that they would be able to repay the loans.

The rapid expansion of the mortgage market in Latvia was a key factor in the boom of real estate prices. Relatively low interest rates (6%-8%) encouraged households to borrow in order to purchase new dwellings. The entry of more foreign banks and development of the financial markets also contributed. The pace of growth was amazing - housing loans expanded by almost 90% annually from 2004 to 2006 (GPG, 2010), and interest rates rose to 16% for credits in the national currency (Nams24, 2002).

### 3. The credit boom as the driver for development and urban regeneration

During the rapid economic growth of Latvia (2000-2007), when real GDP (GPG, 2010) increased between 6.9% - 11.9% yearly (CSBL, 2009), demand for new housing and commercial premises increased sharply. It can be explained by the growth of incomes and the run-down condition of the existing housing stock. For almost ten years after the collapse of the Soviet Union only a few new structures were built, mostly for personal use. This resulted in a shortage of dwellings despite the rapid depopulation in Latvia, especially in Riga, where the population decline has been 23% in the last 20 years.

Active mortgage lending was a significant precondition for the rapid development of the real estate sector in Latvia. Prices of real estate in Riga rose dramatically (the average price rise was 267%) during the period of economic growth (2004-2007), and the banking sector had a significant role in financing most of the purchases made by residents. The total mortgage debt in Latvia rose from 2% of GDP in 2000 (€141 million) to 33.75% of GDP in 2007 (€6.7 billion). When the economy went into recession, the ratio of housing loans still rose to 36.5% of GDP totalling €7.3 billion in 2008 (GPG, 2010).

In order to increase amounts of borrowing, banks cooperated with the construction sector, offering loans for dwellings particularly in recently developed real estate projects. Thus there were situations, when a bank was financing the construction itself, and after its completion the same bank was crediting purchases of the premises in the same property.

Various areas of Riga experienced the boom in construction. If looked at from a geographical point of view, the most desirable land within the administrative city limits was the city centre, where most of development projects were implemented. This part of the city attracted investment mostly because of its central location and adequate infrastructure. Although there were several limitations for development, such as lack of free building plots, the necessity to preserve sites of cultural heritage, various limitations concerning the size of the buildings, the specific demands of architecture and bureaucracy, developers chose it as an opportune area for investment. The old town of Riga, despite it being considered a more prestigious neighbourhood than the city centre outside it, did not attract so much attention from developers, because of stricter restrictions on development and much higher cost

to acquire property for development. The city centre of Riga includes former working class neighbourhoods with their specific problems – run-down housing stock and complicated social structure. Although these neighbourhoods have relatively high future development potential, because they are almost centrally located and have sufficient infrastructure, they have been mostly ignored by developers. This can be explained by the uncertainty of developers as to whether their investments will pay off because of the possible lower interest from potential buyers, who would prefer a more gentrified environment (Šolks, 2010).

Most of the building activities in Riga city centre were carried out on brownfield sites, thus contributing to urban regeneration. Development in the central part of the city contributes to urban regeneration because its principle redevelopment is of land which has been previously used. The most popular brownfield sites chosen by private investors were former industrial sites and abandoned residential buildings in the city centre (Barber, 2007). Both these kinds of sites have similar disadvantages, mostly connected with the poor or run-down infrastructure and restrictions pertaining to the preservation of sites of cultural heritage. If looked at from the point of view of private investors, the advantage of former industrial sites is that old manufacturing complexes, despite their high cultural value, are not officially included as sites of cultural heritage which should be preserved (Šolks, 2010). In practice this allows developers to demolish all structures, because the reconstruction of abandoned industrial buildings is more expensive than building new structures. In these cases issues of conservation and the preservation of the industrial heritage is a challenge for architects and urban planners. However, the outcome has mostly resulted in the loss of a significant part of the industrial heritage that has had a significant effect on the historical spatial structure of Riga.

Most of the old industrial sites, and abandoned or run-down residential buildings, whose origins dated back to the end of the 19th century were reconstructed or refurbished and oriented mostly to the residential sector, just like newly built structures. In comparison with dwellings the proportion of commercial premises was not high in the city centre, because the central part of Riga was losing its position as the commercial district to various suburbs. The plan was to attract potential middle and upper class residents by offering them the advantages of a central location with various cultural attractions and a good public transport infrastructure. This situation can be characterised as a clear case of gentrification, as new residents with rela-

tively high incomes replaced previous residents with lower incomes who had lived in the area since the period of Soviet occupation.

These changes improved the quality of the urban space in Riga city centre, but only in a local context. Urban regeneration projects were accomplished as individual projects on a piecemeal basis, and they did not provide widespread urban regeneration to the whole neighbourhood, and the surrounding houses and social environment remained unchanged. This situation contributes to further fragmentation of the spatial structure of city, something that local authorities officially would like to avoid.

An interesting issue is the level of occupancy of the newly built or reconstructed structures in the city centre. Even during the rapid economic growth it was relatively low. Sometimes all dwellings were officially sold, and the low occupancy rate could be explained by the activities of speculators. Factors limiting property sales were the rapid depopulation in Riga and the suburbanisation process which saw residents leaving central areas of the city to settle in suburban territories. Development in the central areas of the city also contributed to the decrease of population in the city centre as previous residents from the denationalized houses were resettled, mostly in the suburbs of Riga. In the case of recently finished development projects higher occupancy levels can be observed in buildings, where the dwellings were offered for sale earlier, because the total number of potential buyers who were able to afford to pay the relatively high prices was limited. This further led to a situation when development projects attracted less interest from potential buyers.

The suburbs are the most populous neighbourhoods in Riga, and they were developed during the period of Soviet occupation. The most characteristic type of housing in these areas is multi storey buildings which accommodate a wide range of socio-economic groups.

These areas were not so desirable to potential private investors as the city centre, but they attracted investment because there were less restrictions concerning the scale of the buildings. However, there were advantages as well – good transport connections to the city centre, more green spaces and accessible waterfronts. Private investors were interested in the development of the high rise buildings in order to provide more dwellings for sale. As the prices were lower than in the central areas of the city, these properties were available to more potential buyers.

A significant part of the development in the suburbs was connected with the activities of the municipality-owned construction company “Rīgas Pilsēt būvnieks”. This enterprise implemented several housing development projects mostly for the rental market and targeted residents who were waiting in a queue for municipal housing. In comparison to the activities of private developers during the period of rapid economic growth, “Rīgas Pilsēt būvnieks” was not so significant, if the total numbers of developed properties are compared. However, newly built municipal housing had maximum occupancy, as it was not profit-oriented. This situation did not impact on the level of sales of privately developed properties, because the demands of each sector was different.

Brownfield sites outside the city centre did not attract so much attention from private investors, because these areas were classified as suburbs despite their proximity to the historical core. In addition, there was enough vacant land for construction, where projects could be accomplished without major investment.

The suburban areas adjacent to Riga have experienced rapid population growth, a result of the mobility of the population induced by suburbanization processes. These municipalities experienced a comparatively large influx of population from Riga, and the population of these municipalities increased by approximately 20%. Residents with relatively high incomes were keen to have their own houses, and development projects in suburban areas offered a wide range of private housing opportunities.

Initially there was very high demand for private housing development projects in suburban areas of Riga, because this kind of housing was something new to Latvia. In general, it offered comfortable housing, good transport connections to the city centre, and segregated communities, where people with relatively high incomes reside. The high demand for this type of housing determined a construction boom in the municipalities adjacent to Riga. Large areas of agricultural land mostly near to the existing road system, were converted into building sites, and many new suburban villages emerged.

There were different types of offers in the real estate market ranging from sites consisting of parcels of agricultural land to completely furnished houses. In most cases potential buyers were offered building plots with all necessary services connected or almost completed houses without interior decoration.

### 4. Credit bust and the collapse of the housing market

The economic situation dramatically worsened as the result of global inflation impact on Latvia. Unregulated mortgage loans resulted in the appearance of delinquencies. Already in January 2007, when construction and real estate sectors were experiencing growth, one out of every three Latvian borrowers were already encountering difficulties in making their monthly mortgage repayments. The Government brought in measures to reduce housing speculation in order to reduce the inflation rate (GPG, 2010).

The definition of speculation in the real estate sector in Latvia is when a borrower buys more properties than he intends for his own use to re-sell them and derive profit from increasing real estate prices (Ducmane, 2005). The tax on speculative real estate transactions was changed; 25% of the amount of the transaction had to be paid in tax if the property was sold in the 12 months after its purchase. Hence in order to purchase a property with a bank mortgage, the buyer was obliged to deposit 10% of the total price of the property instantly. This regulation was initiated to avoid delinquencies if the buyer was overestimating his ability to repay the loan. Other restrictions were to increase the Land Registry and mortgage registration fees, and buyers were required to secure certification of their legal income from the State Revenue Center (GPG, 2010).

By the middle of 2007, Latvia's low interest rates combined with its high GDP growth rates had caused the economy and the housing market to overheat. Latvian banks were lending money to consumers at interest rates lower than the inflation rate. The loss of jobs and falling incomes caused a rapid downturn in the demand for premises and falling property prices led to substantial losses for banks and other financial institutions. In December 2008 the government nationalized Latvia's largest domestically-owned bank Parex, and later a €7.5 billion standby loan from a group led by the EU and the International Monetary Fund (IMF) was necessary (GPG, 2010). As a result of the financial crisis mortgage lending almost completely ceased causing substantial problems for further development.

Foreign currency loans comprise 92.53% of total mortgage debt (loans in Euro comprise 83.3% of total mortgage debt) in 2010 (BL, 2010), but it did not play a part in the bust. Bank of Latvia avoided the devaluation of the national currency and kept fixed pegs to the euro throughout the global financial crisis. This averted increases in the local-currency cost of repaying foreign

currency loans. This is the case unlike Iceland, Poland and Hungary, where the cost of repaying loans in national currencies soared after devaluation of the national currencies during the recession (Ummelas, 2010).

In Riga development, urban regeneration processes, construction, real estate and the mortgage lending sectors are all interlinked and interdependent, so it is self evident that all these sectors have been badly affected by the credit bust. New developments have practically disappeared in general, resulting in stagnation in the construction sector.

By the end of 2008 the average price of a standard apartments in Riga fell by 41%, and the number of real estate transactions fell by 65% (GPG, 2010). An additional contributory reason was that potential buyers were waiting for further price decreases before buying. The average price fell to €487 m<sup>2</sup> in September 2009, a decrease of 74.5% compared with the peak in June 2007 when it was €1,620 per m<sup>2</sup> (ARE, 2009). To reduce the losses originating from maintenance of the flats offered for sale, sellers offered them for rent, which resulted in stimulation in the rental market despite decreasing rental prices.

The economic recession and following credit bust had a substantial impact on urban development in the central part of the city as construction activities were suspended. This resulted in the emergence of new urban brownfield sites, i.e. abandoned construction sites. Several developers used the decreasing labour costs and other expenditures to their advantage to carry out demolition works in potential development areas, where construction will be started when the economy recovers.

The situation in relation to housing development and urban regeneration of former brownfield sites was typical for an economic recession – most of the ongoing projects were suspended for an indefinite period of time. There were two main reasons for this – the low demand for newly built dwellings and the lack of funds for construction activities as the banking sector had ceased mortgage lending. Most of the suspended projects were offered for sale, but there was very low interest from other potential investors. This can be explained by an existing oversupply, low demand for premises and decreasing purchasing ability of potential buyers, but also because of the necessity to take on the existing loan obligations of the projects. These projects were at various stages of development, somewhere only demolition activities had been started, to projects that were almost completed. There were several development and

urban regeneration projects, where no construction related activities had been carried out at all, but areas with proposed projects were for sale as well.

Exceptionally, building activity in the neighbourhoods outside the city centre in Riga were little affected by the economic recession. The credit bust had a significant impact on the real estate sector as the number of transactions decreased rapidly, however it had no effect on development, because most of the projects had been finished before the credit bust emerged. There had been a comparatively large supply of dwellings built during the period of Soviet occupation which were available for a lower price than newly built dwellings. This situation resulted in a lower demand for new dwellings and less investment in development projects.

Initially newly built dwellings were offered for sale and they were oriented to middle and upper-middle class buyers. As there was almost no demand for dwellings when the credit bust emerged, the number of transactions and prices of properties decreased dramatically.

The city council had a significant role in the real estate sector in Riga during the credit bust, because the municipality-owned enterprise “Rīgas Pilsēt būvnieks” increased its activities as the overall expenditure on construction decreased by 10.8% in 2009 (Diena, 2009). These development projects were financed by banks despite their strict lending policy, because the municipality was a more credit worthy borrower able to repay the loan. This enterprise continued to implement housing development projects mostly for residents who were waiting in a queue for municipal housing. The role of the municipality in the construction sector rose remarkably compared with previous years of economic growth. However, these activities had a minor impact on the real estate sector in general, because these dwellings were oriented towards other social groups than the privately led housing development projects.

The suburban territories of Riga suffered most from the economic recession and following credit bust. These territories experienced large urban growth during the credit boom, and development was mostly financed by loans for purchase or construction of the single-family detached houses. As the economic crisis occurred, and the national economy shrank significantly, many borrowers faced difficulties in making their payments because of decreasing incomes or job loss. Construction activities were largely suspended and many properties were re-possessed or expropriated by banks.

### 5. The recovery of national economy – facts and perspectives

The economy of Latvia contracted by 18% in 2009 being the deepest recession in the EU. The Ministry of Economy of Latvia declared that the country has overcome the economic recession as statistics showed a slow recovery with GDP growth of 0.3% in early 2010 in comparison with early 2009 (TVNET, 2010), and growth of 13.4% in the second quarter of 2010 compared to the first quarter of 2010. This increase is determined by an increase in the output of industrial production which rose by 14%, while the construction sector contracted by 19.5% in the second quarter of 2010 (Rutule, 2010).

The main contributor to the economic recovery is the industrial sector, which shows essential growth despite decline in consumption in the Latvian market. This shrinkage was compensated with the growth in exports as the main export markets came out of recession. Economic activities contributed to the fall of the national unemployment rate to 15% in August 2010 (LR, 2010b), down from 22.3% in 2009 (LR, 2010a), while the unemployment rate in Riga was 11.1% in August 2010 (LR, 2010b). This trend contributes to the increase in the number of those economically active in the population, which positively affects the real estate sector, especially the rental market.

However, emigration is also contributing to the fall in the unemployment rate, because many unemployed residents are leaving the country as they cannot find a job with a competitive salary. The rate of emigration is rising compared to 2009, and in the first half of 2010 the official number of emigrants was 6274, which contributes 46.6% of total population decline in Latvia (CSBL, 2010b). However, the real number is higher, as many emigrants are not officially registered. Another reason for the fall in unemployment is the fact that the unemployed are not officially registering any more if they do not receive unemployment benefit. These previously mentioned aspects demonstrate that the recovery of the national economy is not so strong as presented by the authorities.

In 2010 the construction sector is still in decline even compared with 2009. The number of permissions issued for building work decreased by 41% in the first half of 2010 compared to the same period in 2009 (Drazdovska, 2010a). This situation is not surprising, because construction activities during the period of economic growth resulted in an oversupply of housing. Construction companies in 2010 are mainly focussed on the construction of municipal housing as subcontractors, industrial projects and

development of the traffic infrastructure, which is funded by the EU. Several new development projects in Riga were proposed in 2010, and recovery of the construction sector is expected at the end of 2010 (FINANCENET, 2010).

Deflation in Latvia has shrank from 3.1% in January 2010 to 0.6% in July 2010 (CSBL, 2010a), and the price rise for dwellings reflects the confidence expressed by the authorities that the Latvian economy is recovering. Despite economic contraction the average price for dwellings started to rise in late 2009 after stabilization in September 2009. Before rising again the average price had fallen to €487 per m<sup>2</sup> in September 2009, 74.5% down from the peak of €1.620 in June 2007 (GPG, 2010). In May 2010, the average price had rise by 21.6% compared to the lowest point in September 2009. In the summer of 2010 the average price had stabilised at €602 per m<sup>2</sup> (Kluinis, 2010).

During the economic recession vendors, who had encountered financial problems offered property for sale at low prices. Vendors who had no, or minor financial problems chose to wait for prices to rise and to offer their properties for sale when there was market recovery. Initially price rises were determined by the limited number of houses on the market as many sellers were unwilling to sell properties at such low prices, and news of the upward turn in the economy. This led to the growth of demand for better quality dwellings and rise in prices continued until May 2010. The supply of dwellings also increased, leading to the stabilisation of the real estate market in summer 2010, when various companies declared only 0.1% - 0.5% price rise (Latio, 2010). The stabilisation of prices in this period can be explained by holiday period when activity in the real estate market is low. However, prices are expected to continue to rise in the autumn again (LA, 2010), despite the fact that a significant increase in public utilities charges is expected. Previously autumn and winter seasons saw higher price decreases as many sellers wanted to sell their properties to avoid higher public utilities charges.

The total loan portfolio of the banking sector in the second quarter of 2010 shrank by 1.7% and totalled €21.20 billion by June 2010 (Mārtiņa, 2010). 71.4% of total loans were without payment delays in the same period. Total mortgage debt in Latvia shrank by 4.2% and totalled €6.76 billion in June 2010. 27.9% (€1.85 billion) of the mortgage loans are classified as problem credits with payment delays in the same period (FKTK, 2010). In June 2009 mortgage loans were 83.6% of the total amount of delinquencies. the average size for a delinquent loan for a legal person is €525.611, but for private person – € 35.000.

Restructured loans comprise 69%, and loans in the work-out process comprise 31% of the total amount of problematic credits (FKTK, 2009).

The rapid development of mortgage lending was the main reason for price rises for dwellings during the credit boom, and banking institutions still have a significant role in the real estate sector. Banks established special subsidiaries for the management of expropriated properties, as banks cannot own real estate which is not essential for their basic business. Dwellings expropriated by banks in dealing with mortgage delinquencies were offered mostly for rent and will be offered for sale when the real estate market recovers. This arrangement has slowed down the decrease in property prices because a large number of potentially cheap properties were not offered for sale.

In 2010 banks have restarted mortgage lending, although on a significantly smaller scale than during the credit boom. They have become more cautious and have applied stricter lending criteria (Kluinis, 2010), so not all applicants can qualify. Restarted mortgage lending has stimulated the price rise in real estate, because sellers are not prepared to reduce the price as they did during the credit bust when most purchases were made without borrowing.

The national government passed an insolvency law in August 2010 in order to protect borrowers encountering financial problems from unfair crediting conditions set by banks. This law is disadvantageous for banks as it may limit their options to call in loans, so it will have a significant impact on mortgage lending in the future. It is proposed that banks will provide loans only up to 50% of the value of the transaction. This will avoid delinquencies in future as mortgage lending will be available to affluent residents only or at lower loan to value (DB, 2010). These limitations will slow the price rise for properties and will contribute to a stable real estate market with economically grounded prices.

Real estate companies are looking for foreign investors mainly from countries of the Commonwealth of Independent States (CIS) in order to revive the stagnating market. From July 2010 amendments to the Immigration Law became valid. They determine that non EU citizens may obtain a residence permit for 5 years if they purchase a flat for at least €71.000 or a detached house for at least €142.000. There is significant interest, mainly from Russian citizens. However, only two people have applied for a residence permit on the basis that they have purchased property in Latvia (Skrejija, 2010). These factors will activate the real estate market, although they will not contribute to price

rises, because existing low property prices is the main reason for interest from foreign buyers. If prices rise significantly again, interest will probably rapidly decrease. As foreign buyers are mostly interested in comparatively expensive or luxurious properties (Petrāne, 2010), these transactions will not impact on the standard apartment market.

Although statistics show a gradual recovery of the real estate market as the prices are rising, the number of transactions is still very low, actually, there is stagnation. Price rises cannot only be attributed to this, there are often individual reasons for this. There are still properties for sale at reduced prices. This can be due to the vendors having financial problems and are keen to sale the property as soon as possible. A very important factor for the increase in prices was announcements by real estate companies reporting a gradual price increase. Thus most sellers increased their prices based on these announcements. Thus there are situations when seller and buyer cannot agree a price, because buyers insist on discounts while sellers do not want to reduce the price, motivated by the recovery of the economy and the observed price rise for real estate (Drazdovska, 2010b).

The recovery of the national economy provides room for future optimism. However, the economy of Latvia depends on global economic processes and further recovery depends on them as well. Although the GDP is expected to contract by around 3% in 2010, economic growth is expected to resume in 2011 with a 3.5% expansion. Latvia must reduce its budget deficit to 6% of GDP in 2011 (GPG, 2010) and it may slow the recovery as well. The final results of parliamentary elections in October 2010 may also have some effect on further development, but it is considered that there will not be dramatic changes. An insignificant decrease in demand for dwellings can be foreseen as population decline and emigration are expected to continue. Although deflation is expected for the next two years, prices for real estate are gradually rising, and a further slow price rise is expected in future years.

## 6. Conclusions

Significant activities in the mortgage lending sector in Latvia began at the end of the 1990s, when the national economy developed and GDP increased remarkably. The main reasons for the rapid growth of mortgage lending were the development of the economy and the banking sector and the improvement of living standards.

The rapid expansion of Latvia's mortgage market was a key factor in the price boom for real



estate. Relatively low interest rates (6%-8%) encouraged households to borrow, and the total amount of housing loans expanded by almost 90% annually from 2004 to 2006 (GPG, 2010).

The credit boom was a significant precondition for the rapid development of the real estate sector in Latvia. Prices in Riga rose dramatically (average price rise was 267%) and total mortgage debt in Latvia rose from 2% of GDP in 2000 (€141 million) to 36.5% of GDP (€7.3 billion) in 2008 (GPG, 2010).

Riga experienced a construction boom in various parts of the city. The most desirable part for private developers was the city centre where development activities can be classified as urban regeneration processes. Suburban territories of Riga also experienced active development as demand for detached single family houses was high.

Most of the purchases made by residents were credited by banks and amounts of mortgage lending were not regulated, which resulted in the appearance of delinquencies. The situation dramatically worsened as global inflation impacted on Latvia, and the government brought in measures to reduce housing speculation and reduce spending.

The loss of jobs and falling incomes of the population caused a rapid downturn in demand for premises and falling property prices led to substantial losses for banks. In December 2008 the national government nationalized Latvia's largest domestically-owned bank Parex. In 2008 Latvia secured a €7.5 billion standby loan from a group led by the EU and the IMF (GPG, 2010).

The average price for standard apartments had fallen to €487 per m<sup>2</sup> in September 2009, 74.5% down from the peak of €1.620 in June 2007. Many borrowers encountered financial problems as their incomes decreased or they lost their jobs. A significant part of them lost their properties as they were not able to repay their loans.

The credit bust had a major impact on development in Riga because most of the development projects were suspended as demand for dwellings decreased and developers faced financial problems. Neighbourhoods in Riga, outside the city centre, were an exception as the economic recession had little effect on building activities in these areas, because the municipality-owned enterprise "Rīgas Pilsētbūvnieks" increased its building programme as construction costs fell to provide accommodation to rent. The economy of Latvia contracted by 18% in 2009 and experienced the worst recession in the EU. Statistics show GDP growth by 0.3% in early 2010 mostly determined by the development of industrial

sector which rose by 14%. The construction sector in 2010 is still experiencing decline, but it is expected to recover at the end of 2010.

The unemployment rate is also decreasing (to 15% in August 2010 (LR, 2010b)) and it may seem as a sign of economic improvement although emigration and other factors affect it as well.

The average price for dwellings started to rise already in the late 2009 after stabilization in September 2009. Recently the average price has risen by 21.6% in May 2010 compared to the lowest point in September 2009, and had stabilised in the summer of 2010 at €602 per m<sup>2</sup> (Kluinis, 2010). Although statistics are showing a gradual recovery of the real estate market as the prices are rising, the amount of transactions is still very low.

Total mortgage debt in Latvia shrank by 4.2% and totalled €6.76 billion in June 2010. 27.9% (€1.85 billion) of mortgage loans are classified as delinquencies with payment delays (FKTK, 2010). In 2010 banks have restarted mortgage lending on a significantly smaller scale and it has stimulated the price rise for real estate. It is proposed that in the future banks will provide loans only up to 50% loan to value in order to avoid delinquencies, the national government passed an insolvency law in August 2010 in order to protect borrowers encountering financial problems from unfair crediting conditions.

Real estate companies are looking for foreign investors mainly from CIS countries in order to revive the stagnating market. Amendments to the Immigration Law will make investments in real estate in Latvia more advantageous as it will be possible to obtain a residence permit for five years following the purchase of a property of certain value.

The recovery of the national economy provides room for future optimism. Although the GDP is expected to contract by around 3% in 2010, economic growth is expected to resume in 2011 with a 3.5% expansion. An insignificant decrease in demand for dwellings can be foreseen as the population declines and emigration are expected to continue, although prices for real estate will gradually rise in future years.

### References

ARE (Arco Real Estate) (2009) Market Overview. Available at <http://www.arcoreal.lv/index.php?page=60&lang=en>. Accessed August 20, 2010.

Andrejeva, V. (2006) Development of Latvian Mortgage lending System. Problems and Solutions. Doctoral Thesis, Riga: RTU Publishing House.

BL (Bank of Latvia) (2010) Key Indicators of the MFI (Banking) Sector. Available at <http://www.bank.lv/lat/main/fa/statistika/banku-stat/gbsr/>. Accessed November 30, 2010.

Barber, A. (2007) Planning for Sustainable Re-urbanisation: Policy Challenges and City Centre Housing in Birmingham', *Town Planning Review* 78(2), pp. 179-202.

CSBL (Central Statistical Bureau of Latvia) (2009) Industry, construction, housing and services. Available at <http://www.csb.gov.lv/csp/content/?cat=472>. Accessed August 24, 2010.

CSBL (Central Statistical Bureau of Latvia) (2010a) Consumer price statistics. Available at <http://www.csb.gov.lv/csp/content/?Ing=en&cat=602>. Accessed August 24, 2010.

CSBL (Central Statistical Bureau of Latvia) (2010b) Demographic indicators. Available at <http://www.csb.gov.lv/csp/content/?Ing=en&cat=607>. Accessed August 24, 2010.

DB (Dienas bizness) (2010) Db viedoklis: Zaudējumu sadale uz galviņām, August 6, 2010. Available at <http://db.lv/r/354-blogi-viedokli/357-db-viedoklis/226994-db-viedoklis-zaudejumu-sadale-uz-galvinam>. Accessed August 15, 2010.

Diena (2009) Gada 2. ceturksnī būvzīdības sarūkošas par 10,8%, tai skaitā, strādnieku samaksa - par 20,9%. August 11, 2009. Available at <http://www.diena.lv/lat/business/hotnews/gada-2-ceturksni-buvzidas-sarukusas-par-10-8-tai-skaita-stradnieku-darba-samaksa-par-20-9>. Accessed August 20, 2010.

Drazdovska, I. (2010a) Pirmajā pusgadā Rīgā ekspluatācijā nodoti 347 objekti, Db.lv, August 13, 2010. Available at <http://db.lv/r/329-buve-ipasums/342-buvnieciba/227340-pirmaja-pusgada-riga-ekspluatacija-nodoti-347-objekti>. Accessed August 15, 2010.

Drazdovska, I. (2010b) Sērijveida dzīvokļu tirgū – pārdevēju un pircēju stīvēšanās, Db.lv, August 5, 2010. Available at <http://db.lv/r/329-buve-ipasums/341-nekustamais-ipasums/226953-serijveida-dzivoklu-tirgu-pardeveju-un-pirceju-stivesanas>. Accessed August 19, 2010.

Ducmane, K. (2005) Mājoklis. Privatizācija. Zeme. Nekustamais īpašums 2 (314), *Latvijas Vēstnesis*.

- FINANCENET (2010) Analītiskis: Būvniecība no krīzes varētu sākt iziet gada nogalē, August 13, 2010. Available at [http://www.financenet.lv/viedokli/342152-analitiskis\\_buvnieciba\\_no\\_krizes\\_varetu\\_sakt\\_iziet\\_gada\\_nogale](http://www.financenet.lv/viedokli/342152-analitiskis_buvnieciba_no_krizes_varetu_sakt_iziet_gada_nogale). Accessed August 16, 2010.
- FKTK (Finanšu un kapitāla tirgus komisija) (2010) Par Latvijas banku darbības operatīvajiem rādītājiem 2010. gada jūlijā. Available at [http://www.fktk.lv/lv/publikacijas/pazinojumi\\_masu\\_informacijas\\_l/2010/2010-08-20\\_par\\_latvijas\\_banku\\_darbi/](http://www.fktk.lv/lv/publikacijas/pazinojumi_masu_informacijas_l/2010/2010-08-20_par_latvijas_banku_darbi/). Accessed August 25, 2010.
- FKTK (Finanšu un kapitāla tirgus komisija) (2009) Par Latvijas banku problemātiskajiem kredītiem. Available at [http://www.fktk.lv/lv/publikacijas/pazinojumi\\_masu\\_informacijas\\_l/2009/2009-07-27\\_par\\_latvijas\\_banku\\_probl/](http://www.fktk.lv/lv/publikacijas/pazinojumi_masu_informacijas_l/2009/2009-07-27_par_latvijas_banku_probl/). Accessed August 25, 2010.
- GPG (Global Property Guide) (2010) Strong recovery in Riga continues in Q1 2010. Available at <http://www.globalpropertyguide.com/Europe/Latvia/Price-History>. Accessed August 18, 2010.
- Hansabanka (2002) Hipotekārās kreditēšanas attīstība Baltijā. Available at <http://www.swed-bank.lv/lib/lv/hipotek-kredit.pdf>. Accessed August 19, 2010.
- Kluinis, A. (2010) Mājokļu cenas nekāpj, NRA, July 8, 2010. Available at <http://zinas.nra.lv/ekonomika/latvija/26690-majoklu-cenas-nekajp.htm>. Accessed August 20, 2010.
- LA (Latvijas Avīze) (2010) Rudenī gaidāms straujāks sērijveida dzīvokļu cenu kāpums Rīgā, August 25, 2010. Available at [http://www2.la.lv/lat/sodienas\\_zinas/?doc=8324](http://www2.la.lv/lat/sodienas_zinas/?doc=8324). Accessed August 25, 2010.
- Latio (2010) Gada laikā sērijveida dzīvokļu cenas augušas par 18,4%, jūlijā kāpums – neliels. Available at <http://www.latio.lv/lv/zinas/2537/>. Accessed August 24, 2010.
- LR (Latvijas reitingi) (2010a) Bezdarba līmenis Latvijā - 22%- jau trešo mēnesi augstākais ES, January 8, 2010. Available at <http://www.reitingi.lv/lv/news/latvija/37441.html>. Accessed August 20, 2010.
- LR (Latvijas reitingi) (2010b) Patlaban reģistrētā bezdarba līmenis Latvijā - 15%, August 24, 2010. Available at <http://www.reitingi.lv/lv/news/darbs/45245.htm>. Accessed August 24, 2010.
- Mārtiņa, I. (2010) Kredīti par 10,6 miljardiem latu tiek maksāti bez aizķeršanās, Db.lv, August 9, 2010. Available at <http://db.lv/r/460-finanses/465-bankas/227060-kredit-par-10-6-miljardiem-latu-tiek-maksati-bez-aizkersanas>. Accessed August 18, 2010.
- Nams24 (2002) Available at <http://www.nams24.lv/en/>. Accessed July 21, 2010.
- Petrāne, L. (2010) Uzturēšanās atļaujas grib iegūt, investējot greznos īpašumos, Db.lv, August 24, 2010. Available at <http://db.lv/r/329-buve-ipasums/341-nekustamais-ipasums/227698-uzturesanas-atlajas-grib-iegut-investejot-greznos-ipasumos>. Accessed August 24, 2010.
- Rutule, E. (2010) Iekšzemes kopprodukts 2.ceturksnī samazinājies par 3%, Diena, August 9, 2010. Available at <http://diena.lv/lat/business/hotnews/iekaszemes-kopprodukts-2-ceturksni-samazinajies-par-3>. Accessed August 25, 2010.
- Skrejija, D. (2010) Pieteikušies pirmie uzturēšanās atļaujas kārotāji, Db.lv, August 2, 2010. Available at <http://db.lv/r/460-finanses/469-makroekonomika/226787-pieteikusiesi-pirmie-uzturesanas-atlajas-karotaji>. Accessed August 17, 2010.
- Šolks, G. (2010) Reurbanizācijas procesi Rīgā, Latvijas Universitātes raksti, Zemes un vides zinātnes 752, pp. 156-163.
- Ummelas, O. (2010) Poland Ready to Take 'Brutal' Steps on Foreign Currency Loans, Belka Says, Bloomberg, September 20, 2010. Available at <http://www.bloomberg.com/news/2010-09-20/poland-ready-to-take-brutal-steps-on-foreign-currency-loans-belka-says.html>
- TVNET (2010) EM: Ekonomiskā lejupslīde Latvijā ir apturēta. Available at [http://www.financenet.lv/zinas/341304em\\_ekonomiska\\_lejupslide\\_latvija\\_ir\\_aptureta](http://www.financenet.lv/zinas/341304em_ekonomiska_lejupslide_latvija_ir_aptureta). Accessed August 21, 2010.

# Analysis of Fluctuation in Housing Prices in Iran

↳ By Mr Hassan Gholipour Fereidouni

## Abstract

The purpose of this paper is to analyze the factors which contributed to the fluctuations in housing prices in Iran over the period 1993-2008. Using the Ordinary Least Square (OLS) approach, the empirical results show that as credit to private sector, oil prices and construction costs increase, there is an accompanying increase in housing prices. Furthermore, the empirical findings indicate that there is no significant relationship between returns from the stock market and housing prices. The empirical results also show that with more availability of housing loans provided by Bank Maskan<sup>1</sup>, housing prices tend to decrease. These findings have some implications for policymakers and investors.

## 1. Introduction

House prices in Iran have recorded impressive swings during the last two decades (Abbasinezhad & Yari, 2009). For instance, the annual growth rate of house prices has fluctuated from negative figures to 67% for the period of study with an average growth of 22% per annum between 1993 and 2008 (See Figure1).

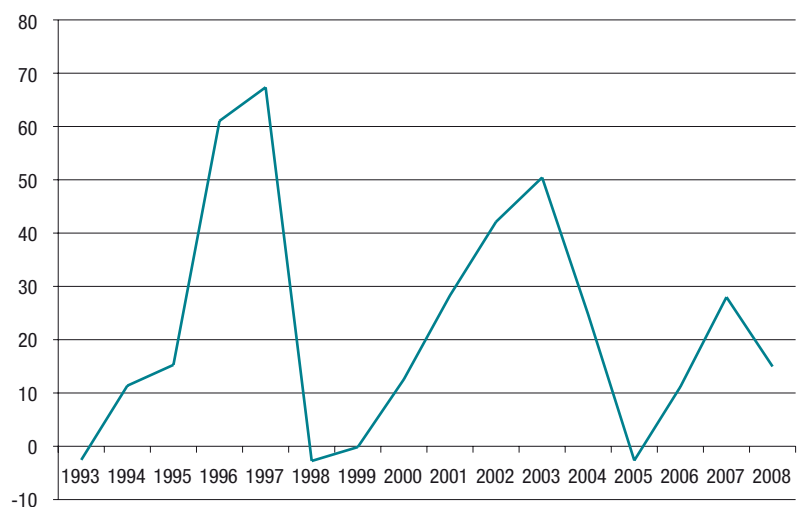
The issue of housing price swings is of great importance for Iranian policy makers and households for four reasons. First, fluctuation in assets prices and housing prices in particular, pose challenges to monetary authorities in calibrating the appropriate response (Gerlach & Peng, 2005; Brissimis & Vlassopoulos, 2009). It means that monetary authorities give primacy to achieving price stability, preferably defined as an inflation target, where inflation is itself measured by some variant of the Consumer

Price Index (CPI). Such an index consists of the prices of current goods and services, but not assets directly. Therefore, monetary authorities should adjust their current policy to the extent that asset price fluctuations have predictive content for future CPI inflation (Goodhart & Hofmann, 2007). Second, in the case of Iran, fluctuation in housing prices has a large effect on most macroeconomic indicators such as total output, investment and employment (MHUD, 2007). Third, residential property is the most expensive purchase for a household and represents above 30% of total household expenditure (MHUD, 2007; Abbasinezhad & Yari, 2009). Fourth, homeownership has traditionally been important in Iran for cultural and investment reasons, therefore, fluctuations in house

prices is very important for households. Hence, based on the above discussion, knowledge of the underlying factors that influence the fluctuations in housing prices is essential for monetary authorities and households.

The purpose of this paper is to empirically investigate those factors which contribute to the fluctuations in house prices during the 1993-2008 periods, focusing on credit to private sector, housing loans provided by Bank Maskan and oil prices in the case of Iran. The focus is on these three factors because some observers suggest that the variation in residential property valuations was spurred by them (e.g. Naghshineh-Pour, 2009; Abbasinezhad & Yari, 2009).

Figure 1 Annual growth rates of housing prices in Iran, %



Source: Ministry of Housing and Urban Development of Iran

<sup>1</sup> This bank is the main provider of loans for building, purchasing and repairing of houses in Iran.

The paper is structured as follows: Section 2 briefly provides some facts about the housing market in Iran; Section 3 identifies the factors which could be relevant for econometric investigation, drawing from the theoretical and empirical literature; Section 4 describes the sources of data and the methodology used in this paper; Section 5 reports the empirical results; and Section 6 makes some concluding remarks.

### 2. Housing market in Iran

Housing is one of the largest industries of the Iran economy (Abbasinezhad & Yari, 2009). The housing sector (including housing and real estate services) is one of the largest components, contributing around 15 percent of Iranian GDP (MHUD, 2007). Annual housing sector growth has been 5.8% from 1959 to 2006 which is more than GDP growth. Besides, around 20% to 40% of Iran economy's capital stock is within the housing sector in recent years (MHUD, 2007). Furthermore, around 25% of Iran economy's liquidity is allocated to the housing sector and also 14.6% of the employed male population is active in this sector (Abbasinezhad & Yari, 2009).

### 3. Factors contributing to the fluctuations in housing prices

In this section we set out the variables that we will consider for our empirical analysis, which follows in the next section. This choice of variables will be guided by two considerations: the relevance of the variables from a theoretical and empirical perspective and the availability of data. The following factors have been selected for this study: (1) credit to private sector (2) housing loans provided by Bank Maskan, (3) oil prices, (4) returns from the stock market, (5) construction costs. The first three factors are our interest determinants, whereas the last two factors are selected as they have influence on house prices in previous studies in Iran. It is noteworthy that our analysis focuses on a different credit aggregate, namely, credit to the private sector and housing loans provided by Bank Maskan which are expected to be linked to housing prices. The remaining part of this section will discuss the above factors.

#### 3.1 Credit to private sector

The first hypothesis to be tested is the relationship between housing prices and credit to the private sector. It is expected that housing prices are positively related to credit to private sector. The idea for choosing this variable is motivated by the argument of Naghshineh-Pour (2009) that

Iranian banks have lent funds to different types of loan applicants (agriculture, commercial, mining, etc) without requiring a viable business plan or conducting enough supervision. In fact, Iranian banks have offered most of their capital to be invested in development projects. But, the investors have often initiated the plans but later redirected the capital to real estate. Consequently, considerable amounts of capital have been funnelled into the real estate markets, particularly into the housing market with the result that real property values have become inflated. On the other hand, when credits to the private sector have been reduced by banks, house prices also have shown a falling trend.

Consistent with the previous argument, past studies also show that the increased availability of credit can raise the demand for property and, since in the short run the supply of real estate is relatively fixed, can lead to increased property prices (Gerlach & Peng, 2005; Brissimis & Vlassopoulos, 2009; Oikarinen, 2009). This means that credit cycles have coincided with housing price cycles in a number of countries (IMF, 2000; BIS, 2001). Collyns and Senhadji (2001) find that there is a strong relationship between bank lending and asset price inflation, especially in the real estate market across East Asian economies. Fitzpatrick and McQuinn (2004) examine the relationship between domestic bank credit and Irish house prices using a single-equation approach and find evidence of a long-run mutually reinforcing relationship. According to Borio et al. (1994), a large expansion of credit can affect property valuations indirectly, as it will encourage investment and consumption spending, increasing economic activity and creating favourable expectations for future income flows from assets, thus boosting valuations. Abbasinezhad and Yari (2009) find that there is a positive and significant long-run relationship between the growth of liquidity and the growth of house prices in the case of Iran. Based on the above discussion, a positive correlation is expected between the housing prices and credit to the private sector.

#### 3.2 Housing loans provided by Bank Maskan

According to Abbasinezhad and Yari (2009), there was a negative relationship between housing loans and house prices in Iran during 1973–2004. Thus, one would expect that availability of housing loans provided by Bank Maskan would decrease housing prices because housing loans which are efficiently supervised by Bank Maskan (allocated to the housing construction) can increase the supply of houses and consequently can lead to decreased housing prices.

On the other hand, some recent research such as Oikarinen (2009) and Gimeno and Martínez-Carrascal (2010) argue that there is a positive relationship between housing loans and housing prices in Spain and Finland respectively. Gimeno and Martínez-Carrascal (2010) analyze the links between house purchase loans and house prices in the Spanish economy. By using a vector error-correction model, their results show that both variables are interdependent in the long-run. Employing time series econometrics Oikarinen (2009) shows that housing loans have a notable impact on housing prices in Finland. He argues that an increase in the availability of housing loans may lower lending rates and stimulate current and future economic activity. As a result, better availability of housing loans may lower discount rates and increase expected future cash flows leading to higher housing prices. Moreover, he adds that an increase in the availability of housing loans is likely to increase demand for housing directly if household borrowing has been constrained. The growth in demand will then be reflected in higher housing prices. A positive relationship is expected between housing loans and house prices in the case of Iran.

#### 3.3 Oil prices

The oil price is probably the most important factor in explaining fluctuations in house prices in Iran because the Iranian economy is highly dependent on oil revenue. Changes in the price of oil and its volatility have significant effects on the economy and the housing market in particular. In other words, Iran's business cycle is largely related to oil prices and as a result business cycle movement is aligned with oil revenue changes (Samadi & Jalaei, 2004; Asgari & Chegeni, 2007). More specifically, Naghshineh-Pour (2009) argue that because of the formation of Dutch disease due to high oil prices and over injection of money into the Iran economy, large amounts of capital went into the housing market and, as a result, have increased the demand for housing. In addition, Abbasinezhad and Yari (2009), by using the Auto Regressive Distributed Lag (ARDL) approach, show that fluctuations in oil prices have a significant influence on housing prices. Their result is consistent with the Dutch disease theory for oil exporting countries. It means that an over injection of petro money into the economic system due to high oil prices will lead to the increase of price of non-tradable goods such as housing. Thus, we expect that there is a positive association between oil price swings and fluctuations in house prices at the period of study.

### 3.4 Returns from the stock market

House prices are expected to have a negative relationship with returns from the stock market, since when returns from the stock market fall, there are more incentives to invest in real estate (particularly in housing). Asgari and Chegeni (2007) find that there is a negative and significant relationship between house prices and returns from the Tehran stock market. In other words, as returns from the stock market decline, there are more incentives for investors to invest in housing and vice versa. Thus, the hypothesis to be tested is whether housing prices are negatively correlated to returns from the stock market.

### 3.5 Construction costs

In previous studies in Iran, a positive relationship has generally been found between housing prices and construction costs. Therefore, it can be expected that swings in the construction costs will create fluctuations in house prices. Supporting evidence for this hypothesis is reported, amongst others, by Asgari and Chegeni (2007). They find that there is a close and significant link between construction costs and the housing prices in short and long terms.

### 3.6 A model for housing prices in Iran

Based on the previous discussions, the proposed model for housing prices in Iran is as follows:

$$HP = f(CP, HL, OP, SR, CC) \quad (1)$$

where HP is the housing prices per square meter in Tehran; CP is the outstanding amount of total credit to the private sector; HL is the outstanding amount of total housing loans provided by Bank Maskan; OP is the oil prices; SR is the returns from the Tehran stock market; CC is the construction costs. All variables have been seasonally adjusted and are expressed in logs. The period covered is from 1993-Q2 to 2008-Q2.

In summary, the proposed model for housing prices in Iran can be expressed as:

$$HP = \beta_0 + \beta_1 CP + \beta_2 HL + \beta_3 OP + \beta_4 SR + \beta_5 CC \quad (2)$$

with the following expected signs:  $\beta_1 > 0$ ,  $\beta_2$  ?,  $\beta_3 > 0$ ,  $\beta_4 < 0$ ,  $\beta_5 > 0$ .

Table 1: Regression results for housing prices in Iran, 1993Q2–2008Q2

	Dependent Variable: Housing Price
$\beta_0$	0.673** (2.77)
CP	0.253** (2.81)
HL	-0.267** (-3.20)
OP	0.057** (4.38)
SR	0.244 (2.93)
CC	1.099** (5.19)
Adjusted R-squared	0.87

\* Significance at 5% level.

\*\* Significance at 1% level.

t-statistics are shown in parentheses.

## 4. Data and Methodology

The model employed uses time-series data. The most important sets of data, i.e. quarterly house prices were obtained for the purposes of this study from the *Ministry of Housing and Urban Development of Iran*. Data relating to the credit to private sector, housing loans provided by Bank Maskan, oil prices and construction costs are obtained from *Central Bank of Iran*. Data relating to returns from stock market is taken from the *Tehran Stock Exchange*.

The proposed model is estimated by OLS approach. The high value for the adjusted R-square indicated that the model is well specified. Therefore, the following interpretation of the results is justified.

## 5. Empirical Results

Table 1 reports the regression results. The credit to the private sector variable (CP) is statistically significant with a positive sign. This result is consistent with the expectation that the increased availability of credit can raise the demand for property and consequently can lead to increased property prices. This is consistent with, among others, Gerlach and Peng (2005), Brissimis and Vlassopoulos (2009) and Naghshineh-Pour (2009).

Housing loans provided by Bank Maskan (HL) have been negatively correlated with housing prices in Iran. The negative sign of the HL variable implies that expansion of housing loans contributes to decreasing housing prices because Bank Maskan has an efficient supervision on its outstanding loans which mostly have been invested in housing construction which lead to increased supply of houses and lower

housing prices. This result is consistent with the study by Abbasinezhad and Yari (2009) who show that housing loans provided by Bank Maskan have a negative impact on house prices in Iran.

Oil prices (OP) are statistically significant with a positive sign indicating that for Iran, oil prices and house prices are positively related to each other. This is not only consistent with the Iranian business cycle, which has shown that the oil price swings contribute to fluctuations in all macroeconomic indicators, including house prices, but is also consistent with the literature on the housing market in Iran, such as Asgari and Chegeni (2007) and Abbasinezhad and Yari (2009).

The returns from the stock market variable are not statistically significant at the 1% and 5% level. This result is not consistent with the study by Asgari and Chegeni (2007) who show that there is a negative and significant relationship between returns from the stock market and house prices in the case of Iran. The significant positive influence of construction costs (CC) on house prices indicates that construction costs do stimulate housing prices in Iran. This is consistent with the previous literature in Iran, such as Asgari and Chegeni (2007).

## 6. Conclusion

House prices have recorded impressive swings during last two decades in Iran. The aim of this paper has been to analyze those factors which contributed to house price fluctuations in the Iranian economy over the period 1993–2008. The following five factors have been used to measure the determinants of fluctuations in house prices: credit to the private sector; housing loans provided by Bank Maskan; oil prices; returns from the stock market; and construc-

tion costs. The empirical results of this study's model of house prices show that credit to the private sector, oil prices and construction costs contribute to the fluctuation in house prices. In addition, the results of our analysis show that housing loans provided by Bank Maskan have a negative impact on house prices. Finally, the empirical results indicate that there is no significant relationship between returns from the stock market and house prices over the period of 1993-2008.

Some policy implications arise from the observed empirical results. First, since fluctuations in oil prices have a positive and significant influence on housing prices therefore more care should be taken by policy makers about the injection of petro dollars into the economy which can increase housing prices in a period of expansion vice versa. Second, the strong linkage between credit to the private sector and housing prices needs to be taken into account by commercial, mining, agriculture banks and other financial institutions to monitor and supervise their outstanding loans which can be funnelled into housing market and, as a result, indirectly increase the demand for housing. Third, since housing loans provided by Bank Maskan negatively influence house prices, it is expected that Bank Maskan could have a more important role in the housing market in future. Fourth, since an insignificant relationship is evident between returns from the stock market and house prices, diversification benefits can be achieved by investing in these two markets.

### References

- Abbasinezhad, H. & Yari, H. (2009). Tasire shokhaye nafti bar gheymate maskan dar Iran [The effect of oil shocks on housing prices]. *Faslnamheye pazhoreshhaye eghtesadi*, 1, Spring, 59-77.
- Asgari, H. & Chegeni, A. (2007). Taien avamele moaser bar gheymate maskan dar manateghe shahrie keshvar be raveshe dadehaye tablooteye salhaye 1370 ta 1385 [Determinants of housing prices in urban area, using panel data over the 1370-1385]. *Faslnameh elmi eghtesade maskan*, 40, 19-36.
- BIS, 2001. Annual Report 71st. Bank for International Settlements, Basel.
- Borio, C., Kennedy N. & Prowse S. (1994). Exploring aggregate asset price fluctuations across countries. Bank for International Settlements, Basel BIS Economic Papers No. 40.
- Brissimis, S. N. & Vlassopoulos, T. (2009). The Interaction between Mortgage Financing and Housing Prices in Greece. *The Journal of Real Estate Finance and Economics*, 39, 146-164.
- Collyns, C. & Senhadji, A. (2002). Lending booms, real estate bubbles and the Asian crisis, IMF Working Paper No. 02/20, February 2002.
- Fitzpatrick T. & McQuinn K. (2004). House prices and mortgage credit: empirical evidence for Ireland. Central Bank and Financial Services Authority of Ireland, Dublin Research Technical Paper, No. 5/RT/04.
- Gerlach S. & Peng W. (2005). Bank lending and property prices in Hong Kong. *Journal of Banking & Finance*, 29, 461-481.
- Gimeno, R. & Martínez-Carrascal, C. (2010). The relationship between house prices and house purchase loans: The Spanish case. *Journal of Banking & Finance*, doi:10.1016/j.jbankfin.2009.12.011.
- Goodhart, C. & Hofmann, B. (2007). *House Prices & the Macroeconomy: Implications for Banking & Price Stability*; Oxford University Press Inc, New York.
- IMF (2000). World Economic Outlook, May 2000. IMF, Washington DC.
- MHUD (2007), Amalkardeh 30 saleh bakhsh maskan, Ministry of Housing and Urban Development of Iran, online, retrieved 23 January 2010, from <http://maskan-sakhteman.ir/Content/?CID=30&PID=39&LID=1>
- Naghshineh-Pour, A. (2009). Financial Crisis, Iranian Style, online, retrieved February 2009, from: <http://mpr.ub.uni-muenchen.de/13282/>
- Oikarinen, E. (2009). Interaction between housing prices and household borrowing: The Finnish case. *Journal of Banking & Finance*, 33, 747-756.
- Samadi, S. & Jalae, S. A. (2004). Tahlile advare tejari dar eghtesade Iran [Analysis of Iran economy's business cycle]. *Majaleh Tahghighate Eghtesadi*, 66, autumn, 139-153.
- Jahani, M. (2007). Rokode bazare maskan and rahkarhaye boronraft az an [Recession in housing market and some solutions to be released from it]. *Faslnameh elmi eghtesade maskan*, 45, 12-28.

# Financing Eco-Housing in India: A Review

↳ By Dr Nitin Pandit<sup>1</sup>, Dr Mahesh Patankar<sup>2</sup> and Ms Athale Prem<sup>3</sup>

The article reviews a variety of financing options for Eco-housing in India and discusses an innovative mechanism promoting finance for retro-fitting of existing buildings.

## 1. Introduction

The residential real-estate market in India has seen substantial growth over the past decade. Housing finance cumulatively grew at a rate of 30%<sup>4</sup> during 2002 and 2007. The global recession led to a decline in real-estate investment by investors and end-users. Early 2009 saw tightening of credit norms by banks, leading to a liquidity crunch among developers. The sector has shown signs of recovery, with an 18% year on year rise in housing finance disbursements in 2009-10<sup>5</sup>. Factors contributing to this growth include India's economic growth in the past year, the recovery in demand for housing and competitive interest rates offered by banks.

Allied to the growth in housing finance, is the 7% growth in India's construction sector<sup>6</sup>. Most of India's residential buildings are highly resource intensive during the construction stage and to operate and maintain over their lifetime. In Indian cities such as Mumbai, residential buildings account for approximately 30% of the city's energy consumption<sup>7</sup>. Eco-housing is defined as "*Environmentally benign and energy efficient buildings, sustainable construction practices, and healthy and productive indoor environment, with lower natural resource use*"<sup>8</sup>. Major benefits of Eco-housing are:

### ■ Environmental benefits

Electricity generation in India is responsible for 42% of the country's CO<sub>2</sub> equivalent emissions in 2007. In the building construction sector, cement production accounts for 8% of India's CO<sub>2</sub> equivalent emissions<sup>9</sup>. Reducing the energy consumption in building construction and improving energy efficiency in residential buildings can lead to a substantial reduction in greenhouse gas (GHG) emissions. Other environmental benefits include reduction in air and water pollution, top-soil conservation, maintaining bio-diversity and reducing waste.

### ■ Economic benefits

Reduced energy consumption in homes means lower electricity bills for residents. Growth in demand for energy efficiency (EE) products and services will promote increased economic activity for EE manufacturers, energy service providers, and contractors. This also reduces the burden on municipalities for provision of services such as water supply, waste collection and disposal.

### ■ Equity

Currently, many state utilities in India are supply-constrained and provide only intermittent power to rural consumers. An increase in the availability of power will allow utilities to improve power supply to rural populations.

A majority of homes in India are constructed using conventional building practices and using materials that have varying embodied energy<sup>10</sup>. Such

buildings also use resource-intensive water consumption. Over the past decade, there have been significant developments to increase sustainability in the sector, including research and development of green technologies and building materials, and

### Box 1 - Eco-Housing in Maharashtra

The Eco-Housing ratings system and certification mechanism was created by IIEC and its partners for the city of Pune, India in 2005, and has now been developed for India's 5 climatic zones. The program development efforts were supported by the United States Agency for International Development (USAID). Eco-Housing Assessment Criteria are used by the certifying body (Science and Technology Park, Pune) to award 1 to 5 star ratings to housing projects. So far, 15 projects in Pune have applied for certification. The Pune Municipal Corporation provides incentive to builders and home-owners for certified Eco-Housing Projects- such as property tax rebates and reduced rates for premium.

At the State level, the Maharashtra Government has adopted Eco-Housing and plans to make certain portions of it mandatory. The Government is currently developing a phased plan to include Eco-Housing criteria such as rainwater harvesting and solar water heating in the Development Control Rules for cities and towns.

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<sup>4</sup> National Housing Bank (2007). NHB Annual Report <http://nhb.org.in/Publications/Annual%20Report%20Bilingual%202007-08.pdf>

<sup>5</sup> CRISIL (2010). Retail finance- Housing, Annual Review <http://www.crisil.com/research/research-industry-information-report-retail-finance-housing-contents.pdf>

<sup>6</sup> RBI (2009). Growth Rates and Sectoral Composition of Real Gross Domestic Product <http://www.rbi.org.in/scripts/AnnualReportPublications.aspx?id=909>

<sup>7</sup> MERC (2010). Detailed Tariff Orders of Utilities, <http://www.mercindia.org.in/>

<sup>8</sup> IIEC (2010). Eco-housing Concepts, <http://ecohousingindia.org/index.php?option=content&task=view&id=6&Itemid=38>

<sup>9</sup> Ministry of Environment and Forests (2010). India: GHG Emissions 2007, Indian Network for Climate Change Assessment, New Delhi.

<sup>10</sup> Embodied energy is the energy used to make a product, expressed in MegaJoules/kg. For example, glass has embodied energy of 26 MJ/kg, while cement has 4.5 MJ/kg. Source: Prof. B V Venkatarama Reddy [http://www.ese.iitb.ac.in/events/other/renet\\_files/2-9/Session%203/Energy%20in%20buildings%28B.V.V.Reddy%29.pdf](http://www.ese.iitb.ac.in/events/other/renet_files/2-9/Session%203/Energy%20in%20buildings%28B.V.V.Reddy%29.pdf)

ratings systems for eco-friendly, energy-efficient residential buildings. Three important ratings systems in India are: Eco-Housing (Box 1), Teri GRIH<sup>11</sup> and IGBC Green Homes<sup>12</sup>. The number of certified green residential buildings in the country is now close to 80<sup>13</sup>.

The term Eco-housing has been used as a generic term in further sections to refer to residential buildings that meet the sustainability criteria.

## 2. Modifying Housing Finance for Eco-housing

Conventional housing finance products for new and existing projects do not explicitly promote Eco-housing; reasons for this are explained with respect to new and existing buildings.

In constructing *new buildings*, the initial costs of including sustainability measures are borne by the builder (10- 15% more than conventional houses), but the benefits accrue over time to the home-buyer. The incremental costs of Eco-housing can be recovered through energy savings within 3- 10 years, depending on the features of the building. Unless there is strong demand from home-owners, it is not directly in the interests of builders to construct green buildings. The dilemma of split-incentives can be resolved by designing financial products that incentivize the beneficiaries of Eco-housing.

To convert an existing *multi-family building* into a green building, interventions can be made at the household level (e.g. improving the insulation of a home, or installing efficient appliances), or in the building common area (e.g. installing efficient pumps or rainwater harvesting systems). Households may require financing to improve the energy efficiency of their homes. While Indian banks provide Home Improvement loans at concessionary interest rates, these loans are not targeted at improving efficiency. Market surveys of bankers and borrowers have revealed that Home Improvement loans are typically treated as personal loans by borrowers, and may be used for different purposes unrelated to housing. For interventions in the common areas of buildings, banks are typically unwilling to finance these initiatives, as they perceive a credit risk in lending to a Co-operative Housing Society (CHS),

as there may not be collateral backing the loan. Banks also face high transaction costs, relative to the size of the loan.

Increasing availability of housing finance has been an important driver for India's rising home-ownership. Modifications to housing finance products can help promote the shift from conventional to Eco-housing. The following sections review initiatives in India to provide specialized Eco-housing finance products.

## 3. Eco-housing financing mechanisms

Various financial mechanisms to fund Eco-housing in new and existing buildings that are under consideration in India are in Table 1, and reviewed below.

### 3.1 Micro-Finance

Housing micro-finance is a small but growing section of the microfinance market in India. It is a means of housing finance for low-income, informal sector employees, who cannot receive loans from commercial banks. Several banks and the country's National Housing Bank provide finance or refinance to Micro Finance Institutes (MFIs), which in turn provide small loans to lower-income households to build new homes or upgrade existing homes. For example,

SEWA Bank has developed a loan product for its members, with unsecured home loans of \$500 at interest rates ranging from 14% to 18%. The houses are typically in slums, and funds are used for new building construction, or for basic improvements, repairs and additions<sup>14</sup>.

There is a large and growing demand for housing finance for the poor. However, according to the Microfinance India: State of the Sector Report, 2008<sup>15</sup> microfinance for new and existing homes in urban areas is constrained by the large size and volume of loans required, longer repayment periods, and other problems such as legal risks from informal land title and lack of awareness about building construction.

There are extensive efforts to promote energy efficient building materials for the poor in India by organizations working in slum rehabilitation such as the Society for the Promotion of Area Resource Centres (SPARC) and by research institutes, such as the Building Materials and Technology Promotion Center (BMTPC).

Despite efforts in the areas of micro finance for housing, and promotion of Eco-housing technologies and materials for the poor, there are currently no efforts to integrate the two, i.e. to promote micro-finance for Eco-housing. One idea being considered focuses on supporting micro-enterprises (See Tables 4 and 5) with annual revenues of under \$22,000 which can provide retrofitting services for existing buildings.

**Table 1: Eco-housing Finance for New and Existing Buildings**

Financing Mechanism	Financial Off-takers	
	New buildings	Existing buildings/ Retrofits
Micro Finance for Eco-housing	Home-owners	Home-owners, Service Providers
Eco-housing Mortgages	Home-buyers	Home-owners
Financial Incentives for Eco-housing, e.g. Fiscal incentives	Builders, Home-buyers, Manufacturers	Home-owners, CHS, Manufacturers
Related financial mechanisms to make homes sustainable, e.g. equipment finance	Builders, EE entrepreneurs	Home-owners or Manufacturers

Source: IIEC Research, 2010

<sup>11</sup> TERI (2010). Green Rating for Integrated Habitat Assessment <http://www.grihaindia.org/>

<sup>12</sup> Indian Green Building Council (2010). IGBC Green Homes <http://www.igbc.in/site/igbc/index.jsp>

<sup>13</sup> Eco-housing: 15 buildings. IGBC-23 buildings <http://www.igbc.in/site/igbc/certifiedbuilding.jsp> Griha- 40 buildings [http://www.grihaindia.org/index.php?option=com\\_regproj&task=show](http://www.grihaindia.org/index.php?option=com_regproj&task=show)

<sup>14</sup> Cities Alliance (2002). "SEWA Bank's Housing Microfinance program in India", CIVIS Issue 4 iii [http://www.citiesalliance.org/ca/sites/citiesalliance.org/files/SEWA\\_CIVIS\\_Nov02.pdf](http://www.citiesalliance.org/ca/sites/citiesalliance.org/files/SEWA_CIVIS_Nov02.pdf)

<sup>15</sup> N. Srinivasan (2008). Microfinance India: State of the Sector Report 2008, Access Development Services [http://www.microfinanceindia.org/download\\_reports/state\\_of\\_the\\_sector\\_report\\_2008.pdf](http://www.microfinanceindia.org/download_reports/state_of_the_sector_report_2008.pdf)



### 3.2 Eco-housing mortgages

Indian banks and housing finance companies have developed mortgage products tailor-made to Eco-housing. The State Bank of India has launched a nation-wide product to promote green homes. The bank provides the following benefits to customers buying certified IGBC Green Homes<sup>16</sup>

- 5% reduction in margin
- 0.25% cut in interest rates
- waives processing fees

In Pune, the Bank of Maharashtra and ING Vysya Bank created Eco-housing mortgage products that had the following features:

- 0.5% rebate on the prevalent interest rate
- To promote purchase of efficient equipment and appliances (additional solar-water heater, efficient lighting products, efficient refrigerators and air-conditioners), the banks offered 1% interest rate subsidy for the products
- The banks allowed either higher repayment tenure or a 3-month moratorium on repayment

The following reasons were provided as justifications for the lower interest rate:

- Investment in Eco-housing increases the loan amount by at least 10%
- Similarly, efficient equipment and appliances cost more, and their sale could be promoted through favourable interest rate, as well as tie-ups with manufacturers
- An early entry in the eco-housing market would fetch a bank a major share in the business

### 3.3 Fiscal incentives

Government incentives to builders, developers, architects, home-buyers and energy service providers can help shift the market of residential buildings from conventional to green. Municipalities in India levy property taxes, and can provide rebates or tax credits to home-owners on these taxes, if green initiatives are implemented. Incentives can also be provided

in charges levied on builders at the time of construction. The Municipality can provide tax breaks to manufacturers of equipment used in green buildings. Examples of fiscal incentives provided by Municipalities are below:

The Pune Municipal Corporation (PMC) offers a 10-50% concession on total premium paid by builders, depending on the project rating achieved by a certified Eco-housing project<sup>17</sup>.

Municipalities provide the following benefits to buildings certified under the GRIHA rating system<sup>18</sup>:

- 90% reimbursement of registration fee
- Rebate in property tax
- Concession in electricity and water charges
- Concession in Municipal Corporation tax

By providing incentives to builders and home-owners, the Municipality is able to achieve its goals of meeting the growing demand for electricity, water and waste removal at lower costs. As the number of certified green buildings rises, the tax incentive is likely to impact Municipal revenues (net of savings on service provision). At that time, the Municipality can consider making some green interventions mandatory, e.g. solar water heating. It can then provide rebates to additional Eco-housing measures that are optional, e.g. grey water recycling.

### 3.4 Other related finance incentives

This section reviews other financing mechanisms that incentivize energy conservation in buildings.

#### *Equipment Finance*

While the construction of a building and its materials consumes energy, a larger amount of energy is consumed during the life of the building. Energy efficient appliances inside the home can reduce the home-owner's energy bill and carbon footprint.

India has a standards and labelling program<sup>19</sup> run by the Bureau of Energy Efficiency (BEE), for

appliances such as refrigerators, air-conditioners, televisions, ceiling fans etc. The number of stars on the product guides the buyer about its energy efficiency- 5 star products are the most efficient. For some appliances, 5-star products are significantly more expensive than the lower rated appliances, and are not easily available in retail stores.

Consumer awareness and willingness to buy eco-friendly appliances varies. A survey in Mumbai showed that consumer awareness of energy efficient lights was high. More than 50% of surveyed consumers were willing to buy star-rated light fixtures, even if the cost was higher. However, in the case of big-ticket items such as air-conditioners, the intention to buy more expensive efficient A/Cs was as low as 15% of the total<sup>20</sup>.

There are numerous subsidies and incentives for energy efficiency and renewable energy (RE) applications for EE/ RE products<sup>21</sup>. One example is the interest subsidy from the Ministry of New and Renewable Energy (MNRE) to promote solar water heating systems. The subsidy can be availed through Indian Renewable Energy Development Agency (IREDA) and certain public, private and co-operative banks. Home-owners can take loans at 2% to purchase Solar Water Heaters<sup>22</sup>. The advantages of providing incentives to promote EE appliances in homes are:

- Banks do not require specialized knowledge of energy efficiency, as the products promoted are labelled products by the BEE
- These models use the existing supply chain of manufacturers, retailers and banks, bringing EE finance into the mainstream

Table 2 illustrates the up-take of interest subsidies for SWHs.

It should be noted that the data in the table refers to domestic, commercial, industrial and institutional installation of SWHs. Despite the provision of a soft loan, there has been only a moderate response to the program. After the first year, uptake is increasing at a declining rate.

An alternative model that is being discussed in India is for credit card companies and Non-

<sup>16</sup> State Bank of India (2010). SBI Green Home Loans <http://www.sbi.co.in/user.htm>

<sup>17</sup> PMC (2010). PMC Eco-housing Program: Procedure and Concession [http://www.punecorporation.org/informpdf/dev\\_permission/Eco\\_housing3.pdf](http://www.punecorporation.org/informpdf/dev_permission/Eco_housing3.pdf)

<sup>18</sup> TERI (2009). Griha will make green buildings a way of life, TERI Features [http://www.teriin.org/newsletter\\_media/feb/news.htm](http://www.teriin.org/newsletter_media/feb/news.htm)

<sup>19</sup> BEE (2010). Standards and Labeling program <http://220.156.189.23:8080/beeLabel/index.jspf>

<sup>20</sup> Urban Catalyst Consultants (2008). End-use Consumption analysis: Consumer survey in Mumbai residential societies.

<sup>21</sup> More information on the impact of EE/ RE incentives programs can be found in "Sustainable Growth through Energy Efficiency" by Debashish Majumdar, CM and MD Indian Renewable Energy Development Agency Ltd. [www.reeep.org/file\\_upload/9\\_tmp-phpVnLygn.ppt](http://www.reeep.org/file_upload/9_tmp-phpVnLygn.ppt)

<sup>22</sup> MNRE (2008). Accelerated development and deployment of solar water heating systems in domestic, industrial and commercial sectors, [http://www.ssacl.co.in/revised-SWHS-2008-09\\_2009-10.pdf](http://www.ssacl.co.in/revised-SWHS-2008-09_2009-10.pdf)

Banking Financial Companies (NBFCs) to provide loans at concessional interest rates (such as at 0% financing) to consumers, and share the cost of the interest rate cut with the manufacturers. These financing institutions have a presence in appliance stores all over urban India and customers are accustomed to promotional offers during sales season.

One of the challenges that will need to be addressed before implementing this model is that the lending bank/ NBFC may require a guarantor to protect against credit default. For large scale implementation, a national or international agency will have to participate in the program and provide a credit default guarantee for a fee.

### Finance to Energy Service Providers

To promote Eco-housing in existing homes, another option in India is financing Energy Service Providers (ESPs). While larger ESPs may not participate in the existing residential buildings market, micro small or medium enterprises (MSMEs) such as Licensed Electrical Contractors (LECs) or plumbing contractors may do so. These firms can install and maintain technologies such as efficient end-use pumps, Solar Water Heaters (SWHs), Solar PV-powered LED and CFL lights, on-site wastewater treatment and rainwater harvesting in residential buildings.

A model to finance these entrepreneurs to implement Eco-housing in existing buildings is under consideration in India. In this model, banks provide loans to the ESP to install and maintain a green product for the home-owner. The loan is used to purchase the product and cover installation costs. The ESP enters into a performance contract with the CHS to be repaid on a "shared-savings" or "guaranteed savings" basis<sup>24</sup>. Energy savings of the CHS are paid to the ESP, who uses these funds to service the loan.

It may be possible to modify this model by adding a role for the electricity utility. Utilities can charge the consumer- the CHS through its electricity bill, and pass through the payment (for a fee covering transaction costs) to the service provider.

**Table 2: Up-take of Solar Water Heater Interest Subsidies: 2005- 2009**

Details of Up-take	2005-06	2006-07	2007-08	2008-09	2009-10	Total
No. of Participating Banks / FIs	19	30	31	33	35	35
No. of End-Users availing soft loan	246	11,664	16,498	19,541	6,360	54,309
Total collector area installed in (m <sup>2</sup> sq.)	876	45990	71098	85378	26521	229,863
Total loan amount considered by IREDA / released by Bank (USD mn)	0.11	6.61	10.50	12.18	3.72	33.12
Total upfront interest subsidy released by IREDA (USD mn)	0.01	1.23	2.07	2.71	0.83	6.85

Source: IREDA, 2009<sup>23</sup>

The model tackles energy use in residential common areas of existing buildings, an area which is usually neglected. Funding to ESPs can increase entrepreneurship among small enterprises and access to technologies in this sector. Another advantage of this model is that Indian Public Sector banks are committed to supporting the MSME sector, and can provide concessional funding to these firms.

ESPs and banks will require training, and an awareness campaign will be needed to convince CHS that they will benefit from this model. A service network between consumers, service providers and financial institutions will also be needed, which Indian cities currently lack.

### 4. EcoTRA: An innovative model to finance Eco-housing in existing buildings

In addition to the models discussed above, innovative new ideas on financing Eco-housing are being discussed and tested in India. One of them is EcoTRA- IIEC's proposal to establish Trust and Retention (escrow) accounts to finance climate-friendly interventions in common areas of CHS.

The model functioning is as follows: Banks lend to CHS for energy and water efficiency improvements in common areas. The bank places a lien on the general purpose account of the CHS for repayment of the loan. The repayment may be aligned with energy savings from the installation of Eco-housing measures. The model is below.

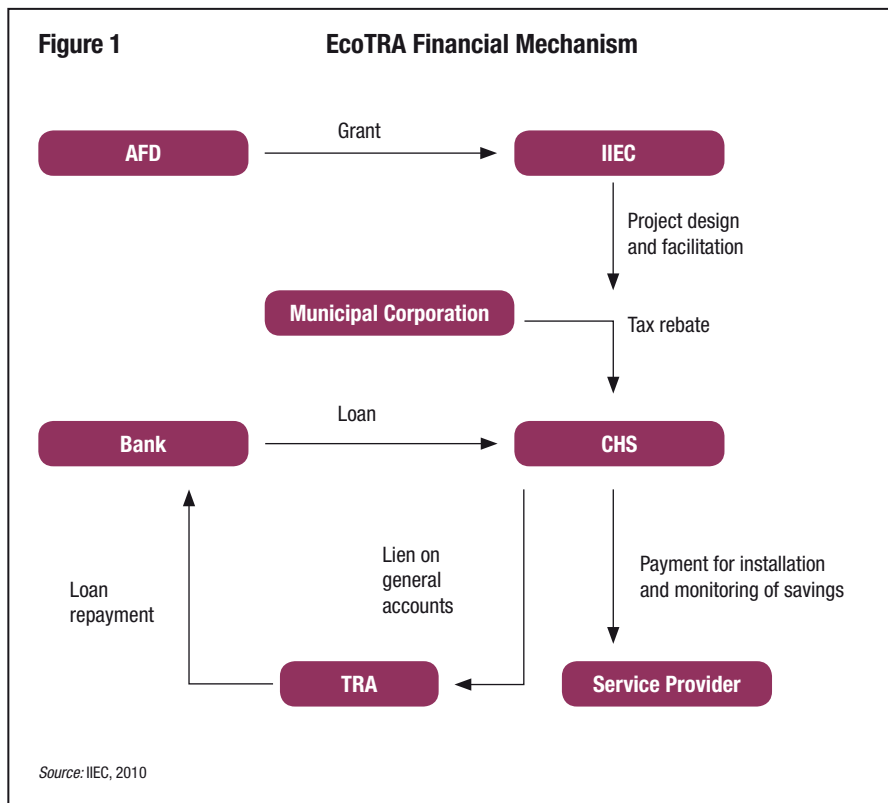
The escrow mechanism is expected to reduce the risk of lending, giving banks access to a large number of new clients. Co-operative housing societies will have increased access to finance and lower utility bills; energy efficiency service providers will receive additional business, and large-scale implementation will lead to lower energy consumption and GHG emission. The model includes incentives from the Municipal Corporation to the CHS for implementing Eco-housing measures.

EcoTRA was IIEC's winning proposal at the Agence Française de Développement, Gates Foundation and World Bank co-hosted Marketplace on Innovative Financial Solutions for Development<sup>25</sup> in Paris on March 4-5, 2010. IIEC will test the financial model in the city of Thane in 2010-11. The program design will incorporate features to ensure that the program is sustainable after the pilot is implemented.

<sup>23</sup> B. Venkateswara Rao (2009). IREDA's Role for Commercialization of Solar Water Heating System, [www.hareda.gov.in/Presentation%20for%20Solar%20Thermal%20Business%20Meet.ppt](http://www.hareda.gov.in/Presentation%20for%20Solar%20Thermal%20Business%20Meet.ppt) Solar Thermal Business Meet, Gurgaon.

<sup>24</sup> For a discussion of performance contracting, see <http://www.energyservicescoalition.org/resources/whatis.htm>. For a discussion on Energy Service Companies in India, see papers from the Asia ESCO Conference, New Delhi January 2010 <http://www.asiaesco.org/presentation-download.html>

<sup>25</sup> AFD (2010). Marketplace on Innovative Financial Solutions for Development, Paris <http://en.fininnov.org/main.php?page=call-end2>



## 5. Concluding Summary

The table below (see Table 3) summarizes models for financing Eco-housing, the uptake so far, ease of implementation in India, loan structure and applicability to EE projects. It will be important to track changes in the state and central government policies, as well as in the microfinance sector in India, which could have significant impact on financing eco-housing in future.

## Annex

According to the Micro, Small & Medium Enterprises (MSME) Development Act, 2006, MSMEs are defined as follows for the manufacturing and service sectors:

**Table 4: MSMEs in Manufacturing Sector**

Enterprises	Investment in plant & machinery
Micro	Investment in plant and machinery less than USD 55,000
Small	Investment in plant and machinery over USD 55,000 but not exceeding USD 1.1mn
Medium	Investment in plant and machinery over USD 1.1 million but less than USD 2.2mn

**Table 5: MSMEs in the Service Sector**

Enterprises	Investment in equipment
Micro	Does not exceed USD 22,000
Small	More than USD 22,000 but does not exceed USD 45,000
Medium	More than USD 45,000 but does not exceed USD 1mn

Tables 4 & 5 source: Union Bank of India (2010). MSME Banking <http://www.unionbankofindia.co.in/msmedefinition.aspx>

All data presented in USD converted using the rate USD 1 = INR 45

**Table 3: Comparison of Financing Models for Eco-housing**

Financing method	Uptake	Ease of Implementation	Loan size, tenure, rebate
Microfinance for new/existing Eco-housing	None for Eco-housing.	Difficult	None
Eco-housing mortgages	Low	Moderate- if Eco-housing ratings system exists	Loans starting at \$80,000; 50 bps off interest rate
Fiscal Incentives	Low	Moderate	Up to 50% off premium; 90% reimbursement of registration fee; Property tax rebate; Concessions in utility charges and local tax
Other- Equipment Finance	Low	Difficult for interest-rate subsidies on SWHs; Easy for star-labelled EE products;	2% interest rate on SWH loans; 0% financing on consumer goods loans;
EcoTRA	Being established	Moderate	Proposed rebate from Municipal Corporation; Average loan size expected to be \$4000

# The Impact of the Macro-Economic Environment on Institutional Housing Finance in Ghana

↳ By Nicholas Addai Boamah

## 1. Introduction

Adequate housing greatly impacts on the productivity of a country's labour force, the health and mental state of the citizens of a nation, social relations, civic pride, and strong and stable communities; these are all necessary for the attainment of socio-economic development of nations. However, adequate housing cannot be provided for the citizens of a nation without first establishing a sustainable housing finance regime. The main essence of a housing finance system is to deliver sustainable funds to the producers and purchasers of housing: both rental and owner-occupied (Gyamfi-Yeboah and Boamah, 2003). But housing development is long-term in nature and requires a large amount of long term finance. This indeed is a source of concern to all nations all over the world, particularly for developing countries like Ghana. There is therefore the urgent need to develop a sustainable housing finance market in Ghana. This will promote housing investment and development by providing sustainable housing funds to households in the country. Similarly, property finance through the housing finance market will free up capital that might be locked up in dwellings under development which eventually becomes "dead capital" (Boamah, 2009). Property owners will also be able to realize equity from their properties for investment in profitable ventures. Homeowners as well as the overall economy could be enriched, thereby complementing the government's effort to reduce poverty (Asare and Whitehead, 2004).

In most countries, institutional finance contributes significantly to housing delivery. One of the major means of raising funds to finance the purchase of houses in many parts of the world is through the use of a mortgage (Gyamfi-Yeboah

and Boamah, 2003). In Ghana, the contribution of formal finance to housing development is extremely limited. The housing sector has long been isolated from the formal financial institutions in the country. Although house prices have overly exceeded households' income no comprehensive housing finance system has been put in place in Ghana. A major intervention in the institutional housing finance sector was the establishment of the Home Finance Company Ltd (HFC-now HFC Bank Ltd) in 1991. Unfortunately in November 2003, the HFC turned into a universal banking institution providing commercial, mortgage and investment banking services to its customers. Mortgage lending has thus become part of the HFC's investment portfolio; the form of the intervention has therefore changed and created a conducive environment for diverting the company's attention from long-term housing finance to short term investments such as commercial loans. For instance, in 2007 the outstanding mortgages of the HFC stood at GH¢27,222,010 as compared to GH¢78,145,583 in commercial and consumer loans (GH¢0.9704 = US\$1, (BoG, 2009)). Therefore, in 2007 the HFC had only 25.6% of its outstanding loans in mortgages and as much as 73.6% in commercial and consumer loans. Prior to the establishment of the HFC in 1991 there was virtually no formal housing finance market in the country.

Despite the potentially large market size, lending for housing in Ghana is inadequate. For instance, the HFC Bank granted housing loans of only GH¢34,424,907 (GH¢0.9704 = US\$1 (BoG, 2009)) in 2007 and GH¢26,175,285 (GH¢0.9235 = US\$1 (BoG, 2009)) in 2006 (HFC Bank, 2008). Similarly, in 2000 the HFC offered a total of US\$5,700,000 (¢5,321.70 = US\$1 (GSS, 2005)) to a total of 230 mortgagors; this amounted to 95% of all housing credit granted

in the country for 2000 (HFC, 2004). Similarly, between 1974 and 1988 the defunct Bank for Housing and Construction (BHC) and the Social Security Bank (SSB) respectively granted housing loans of ¢223,895,588 (to 363 mortgagors) and ¢766,200,000 (225 mortgagors) (Konadu-Agyemang, 2001). The BHC and SSB's housing investment over this fourteen year period was too little to stimulate housing development in the country. The commercial banks have no stand alone departments that engage in home mortgage finance (CHF International, 2004). Konadu-Agyemang (2001) noted that the banks have allocated less than 5% of their investment portfolio to the housing sector and that the proportion is decreasing over time.

There is an inadequate, highly underdeveloped and unsustainable housing finance system in Ghana. The undeveloped nature of the Ghanaian housing finance market may be due to a weak or unstable macro-economic environment. For instance, inflation and interest rates have been high and unstable over the years. The average annual inflation rate was 16.5% and the interest rate (base rate) was 27.22% in 2008 (Bank of Ghana, 2009). Such high inflation and interest rates are disincentives for long term housing investment. They increase lenders default risk exposure, and also constrain borrowers' ability to repay. As Fortin and Leclerc (2007) noted, a rise in interest rate disqualifies a significant number of would-be borrowers and reduces the vigour of the mortgage market.

This paper examines the impact of the prevailing macro-economic environment on the housing finance market in the country. It examines the effects of inflation, exchange and interest rates, and short term investment opportunities for the attainment of a sustainable housing finance system in Ghana. The paper used macro-economic

and corporate time series data over the period 1992 to 2008. Data on inflation was obtained from the International Monetary Fund's (IMF) World Economic Outlook Database. The paper obtained exchange rate data for the period 1992 to 2002 from the Ghana Statistical Service (GSS) and 2003-2008 from the Statistical Bulletins of the Bank of Ghana (BoG). Data on the interest rate was obtained from the Ghana Statistical Service. The paper used the IMF, BoG and GSS macro-economic time series data, because these institutions hold high quality, long duration and reliable data on Ghana. The paper obtained mortgage data from the HFC Bank Ltd (formerly Home Finance Company Ltd). It used the HFC Bank's data because it is the major mortgage lender in the country and also the most active lender in the Ghanaian housing finance market. It originates about 90% of mortgages in Ghana. It is also the only lender that had long period mortgage data on Ghana. Although, the Ghana Home Loans (GHL) is also active in the Ghanaian mortgage market alongside the HFC Bank, no data could be obtained from them. Information was gathered through mail shots, telephone contacts and archival and official documentary surveys.

## 2. Macro-economic factors and housing finance

The macro-economic environment of a nation plays a significant role in its quest at creating an efficient and sustainable mortgage market. Macro-economic factors such as inflation, interest rates, and exchange rates impact on mortgage affordability and the real value of mortgage repayments over time. They therefore affect both the lender and the borrower to a mortgage contract. The interest rate charged on a mortgage is a nominal variable; it is a function of the real risk adjusted interest rate and anticipated inflation. It could be expressed linearly as:

$$I_t = R_t + F_t \quad (1)$$

where  $I_t$  is the nominal interest rate charged by the lender at mortgage origination (%),  $F_t$  is the premium for expected inflation at mortgage origination (%), and  $R_t$  is the real risk adjusted rate of return at mortgage origination (%) ( $R_t$  is competitive with real return available on other investment opportunities in the economy).

The interest rate charged at mortgage origination is therefore based on the lenders anticipation of  $R_t$  and  $F_t$  over the life of the mortgage loan. Inflation affects housing finance via its effect on the interest rate charged by lenders at mortgage origination, and the real value of mortgage repayments over the life of the loan. The pres-

ence of inflation reduces the real value of the mortgage payment and the outstanding loan over time (Chambers et al., 2008). It is therefore essential for lenders to adequately capture the effect of inflation at mortgage origination. As Asare and Whitehead (2004) noted, correct anticipation of inflation by lenders increases the money interest rates, and for that matter nominal payments, thereby generating a "front loading" payment problem for borrowers. When inflation is high nominal interest rates are also high, even when they are negative in real terms; at high nominal rates of interest, there is a major "front-end-loading", or a cash squeeze problem for borrowers (Sandilands, 2002). High inflation is reflected in higher nominal interest rates and lowers mortgage demand as the part of household income that has to be spent on housing finance increases (Wolswijk, 2005). As Buckley (1989) noted inflation redistributes real mortgage repayments towards the early years of a mortgage loan with the results that payments out of mortgagors income in those years become extremely difficult. Nickell (2002) noted that high inflation shifts the burden of interest payments and repayments to the initial phase of the loan, with negative effects on housing credit demand. With higher inflation and nominal interest rates, an increasing fraction of households will in effect be limited by their current income from accessing housing credit (Fortin and Leclerc, 2007). The tilt or "front-loading" effect makes mortgages unaffordable, it increases mortgage repayments vis-à-vis mortgagors' current income, constrains borrowers' ability to repay, and exposes mortgagees to higher default risk.

But unanticipated inflation will reduce the real value of the mortgage investment unless there is a sufficient increase in the mortgage repayments to offset the debilitating effect of inflation. In an inflationary environment, the real value of mortgage payments over the length of the loan is reduced. Even though nominal mortgage payments may be constant, the real payments may decline over the length of the loan in a world with inflation. Buckley (1996) therefore suggested that with a rising inflation, nominal mortgage rates must rise to compensate lenders for the erosion of the value of latter payments. Miles (2004) noted that unanticipated inflation increases the risk premium and therefore the real interest rate. Unanticipated inflation will increase the real interest rate that both savers and lenders require, thereby increasing the real cost of mortgages (Asare and Whitehead, 2004). Savers may be reluctant to save if interest rates are negative in real terms and thus constrain mortgage lenders of the requisite funds for housing investment (Sandilands, 2002).

Inflation introduces a major distortion into the financing markets by discriminating heavily against long term investment such as housing. It is therefore a source of concern to both lenders and borrowers; none of them is free from the distortionary effects of inflation. It imposes a burden on lenders as they have to find a way of preserving the real value of their investments and also manage the potentially high default risk associated with correctly anticipated inflation. In the presence of inflation, affordability and the possibility of perpetual indebtedness become a prime concern for mortgagors. Buckley (1989) noted that a change in the inflation rate can make mortgages unaffordable thereby making housing less affordable even when there is no change in real income or real prices. The burden on borrowers to make more mortgage payments increases but their existing incomes may not be sufficient to meet such obligations. Inflation impacts negatively on mortgage demand and real growth in mortgage lending; this may be due to the demand-reducing consequences of the "tilt" effect or the potentially high default rate that results from high inflation rates. Mortgage demand may also slump as a result of high inflation volatility which usually increases with inflation. Also, Inflation volatility makes it difficult for lenders to correctly anticipate inflation at mortgage origination; this has a dampening effect on mortgage supply.

Exchange rate is another important macro-economic factor that impacts heavily on the development of housing finance markets. Currency depreciation has a dampening effect on the real value of mortgage payments in relation to stable foreign currencies. The real value of a mortgage loan relative to more stable currencies may decline as a result of the combining effect of currency depreciation and high inflation. Asare and Whitehead (2004) noted that this phenomenon in the absence of an appropriate instrument increases lenders risk of loss in terms of the value of regular mortgage repayment. Lenders may therefore denominate mortgages in terms of a more stable foreign currency as a hedge against the combined effect of currency depreciation and inflation. Although transactions are made in the local currency under such a circumstance, the unit of account becomes the foreign currency. The practice allows the domestic inflation element to be taken out of the interest rate (Asare and Whitehead, 2004). By borrowing in a foreign currency, mortgagors are exposed to currency and foreign interest rate risks. Mortgagors are therefore exposed to incremental borrowing cost anytime the unit of account appreciates against the transactional currency; with a weaker domestic currency the incremental borrowing cost is extremely high. This constrains borrow-

ers' ability to meet future mortgage obligations and increases default risk over time. Currency depreciation impacts negatively on both the supply and demand of mortgages. High exchange rate volatility intensifies currency risk.

Interest rates are an important element in the broader concept of capital costs of housing, reflecting the costs of capital invested in housing (Wolswijk, 2005). Interest rate volatility is a source of substantial risk to lenders; an unanticipated surge in the interest rate will decrease the market value of a fixed rate mortgage loan leading to significant losses. As Jaffe and Renaud (1996) noted, this is the result of the fact that mortgagors generally prefer long-term mortgage loans, but depositors prefer the liquidity of short-term investments. Housing investment differs from real capital as a long-term mortgage contract is required (Chambers et al, 2008). The housing finance market is different from most other credit markets, since it finances an asset whose value is usually very large relative to the borrower's existing income, and so loans need to be on much longer terms (Sandilands, 2002) for it to be affordable, but the liabilities of lenders are primarily short term. This imbalance between the maturity gaps of the assets and liabilities of lenders may cause the cost of their liabilities to rise relative to the returns on their mortgages (Boamah, 2003). Also, lenders who rely on deposits may be subjected to periodic outflows due to economic downturns or widening differentials between deposit and alternative investment rates (Chiquier et al, 2004). This may make them liquidity constrained.

Lenders face large unhedged interest rate exposure by funding long-term fixed-rate housing loans with short term deposits. The cost of deposits is raised by a rise in market interest rates without immediately raising the return on the mortgage assets, thereby creating interest rate risk for the lenders (Jaffe and Renaud, 1996). The interest rate charged on a given loan may be insufficient should economic conditions change after a loan is granted (Brueggman and Fisher, 2001, Boamah 2003). When interest rate rises in an environment of fixed interest rate mortgages, the interest payment obligation of institutional lenders to depositors will rise, but the interest rate on their mortgage assets will lag behind the prevailing market interest rates. This will lead to significant losses measured by the gap between the prevailing market interest rate and the interest rate on their outstanding mortgages. The interest rate risk can be hedged using adjustable-rate mortgages, but this only transfers the interest rate risk to the borrower and raises lenders default risk exposure. Chiquier et al (2004) noted that while variable rate mortgages reduce the interest rate risk for lenders,

they increase it for borrowers, which may lead to high rates of default in volatile economies. Even if banks are protected from interest rate risk through variable rate products, borrowers' ability to pay suffers in the face of abrupt changes in scheduled amounts due (Sacks et al., 2003).

The availability of short term instruments with attractive interest rates may make housing investment less attractive to investors. Short term investments may be preferred by lenders especially in a volatile economic environment since they are less prone to economic instability. For instance, a short term government bond that offers relatively high yield may be an attractive investment for banks due to its low risk nature; this may constrain the flow of funds to the housing sector which is riskier, especially in an unstable economic environment. Under high and volatile inflation and interest rates investors may favour short term investments such as treasury bills and commercial loans. Changes in interest rates make investments in long-term instruments very risky (Mishkin, 2006) and increase investor preferences for short term instruments.

### 3. Macro-economic factors and institutional housing finance in Ghana

The increasing population, the low levels of new housing development, the pride associated with homeownership and the inflation hedging role of housing assets has brought about increasing demand for housing thereby creating an increased demand for housing finance. Despite this, the supply side lenders have failed to develop the housing finance market in the country. In general, this may mean that mortgages as a form of investment are unattractive to lenders. This may be due to the risk in lending long-term in Ghana (Boamah, 2003), such as high and unstable inflation and interest rates, and currency depreciation. The success of every housing finance system is subject to the performance of the macro-economy (Akuffo, 2006). The relationship between the macro-economy and the development of the housing finance market is shown in figure 1. A stable macro-economic environment is important if sustainable housing finance is to be attained in Ghana. This affects lenders expected rate of return, required loan to value ratios, down payments, and hence loan affordability and the timing of home purchase by households. The major issue is whether these basic risk factors are right in Ghana.

The macro-economic environment has not been conducive to the development of housing finance

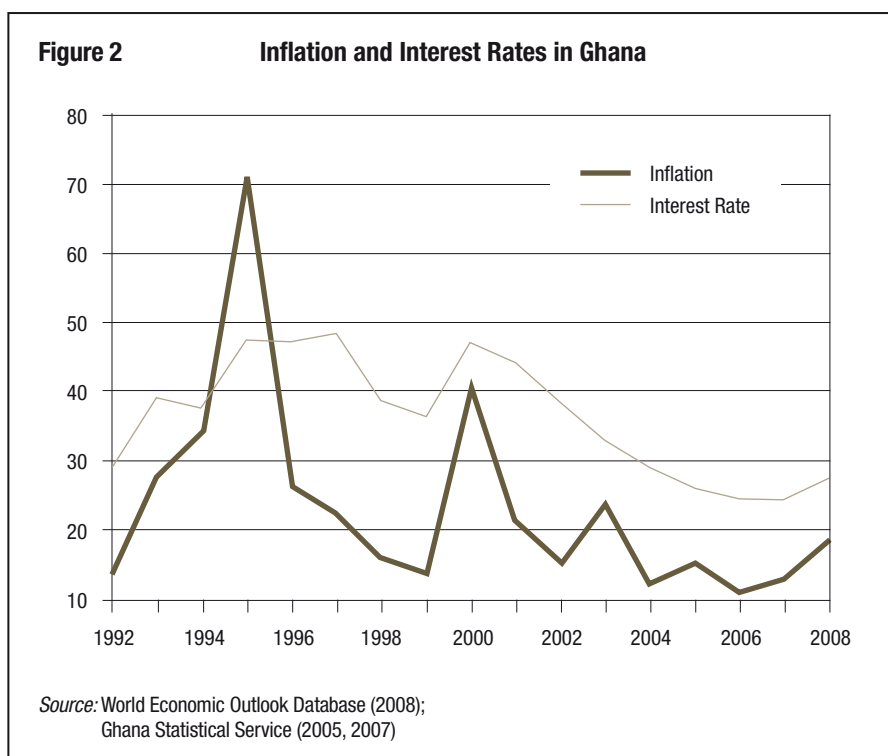
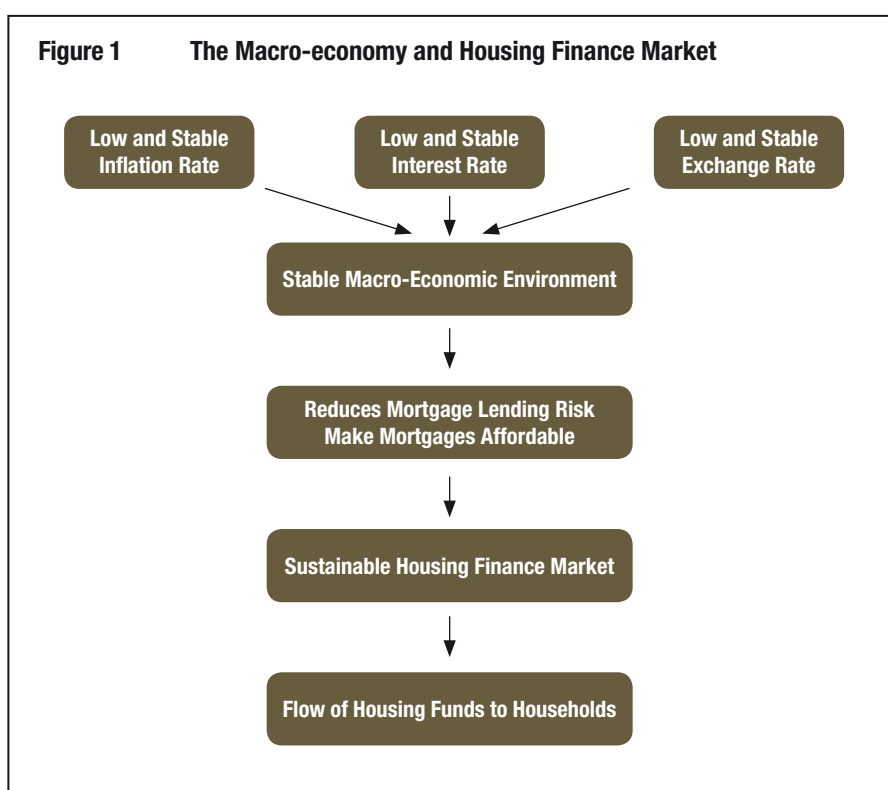
markets in Ghana. The rate of inflation has been high and unstable in the country; the degree of increase has been unimaginably high in some years as shown in figure 2. It increased between 1992 and 1995, decreased between 1995 and 1999, rose again between 1999 and 2000 and showed a downward trend after 2000. The high and volatile inflation rate made it difficult for lenders to correctly anticipate inflation for effective mortgage pricing in the country. Mortgage lenders in Ghana therefore risked losing the real value of their investments due to unanticipated inflation. For instance, between 1994 and 1995 inflation exceeded nominal interest rates; real interest rates were therefore negative. Lenders lost the real value of their mortgages and thus incurred significant losses due to their inability to capture the full effect of inflation. The incentive structures in the Ghanaian economy were distorted by the high and volatile inflation rates and shifted investor preferences from long-term investments (such as housing credit) to short-term ones (like consumer credit). The risk of loss due to unanticipated inflation is high in Ghana and has constrained the flow of funds to the housing sector since investments in housing finance are long term.

Anticipating inflation correctly does not totally protect lenders from losses due to its impact on nominal interest rates and loan default. Credit risk expanded in instances where Ghanaian lenders captured the effect of inflation correctly since income levels were not increasing with the varying rate of inflation. For instance, the basic monthly public sector salary in 2004 and 2005 were respectively c306,081 or GHc30.61 (US\$33.82) and c368,937 or GHc36.89 (US\$40.41) (GSS, 2007). The income levels were not sufficient to offset the effect of inflation on mortgage payments. For this reason, HFC abandoned its inflation indexed mortgages when inflation hit 70% in 1995. Due to the very high levels of inflation, the management of HFC had to quickly negotiate a cap on the agreed inflation indexed interest rates on the mortgages to avoid mass default on mortgage loans (Akuffo, 2006). This is not surprising, as Buckley (1989) noted, inflation index mortgages will not perform in a financial environment in which inflation remains at extremely high and volatile levels. The inflation rate in Ghana had a negative impact on the costs and benefits of mortgage indexation. The high inflation rate, whether correctly or wrongly anticipated by lenders, does not protect them and hence worked against the creation of sustainable mortgage market in Ghana.

Inflation is of major concern to borrowers as well; they are mostly concerned with mortgage affordability. The high and volatile rate of inflation has increased the "front loading cost" to

mortgagors in Ghana. Most households in Ghana are unable to finance mortgage debt servicing from their current incomes. The Center for Democratic Development (CDD) (2002) noted that 76% of households had less than US\$56 total monthly incomes, only 5.0% of households had monthly incomes in excess of US\$100, 66% of households were without a regular wage or salary, and only 18.0% of households were able to save money regularly. Also, the average annual household income was GH¢1,217 (US\$1,318) and the average annual per capita income was GH¢397 (US\$430) in 2006 (GSS, 2008). A Ghanaian therefore lived on an average monthly income of GH¢33 (US\$36). Also, house prices relative to households' income are excessively high. Karley (2008) for instance notes that a low income house cost about US\$35,700. With this low level of wages, high average house price, and high level of inflation in the country, real income levels are generally too low to support mortgage debt payment. The high inflation rates, high average house price, and low income levels have effectively reduced mortgage demand in the country. For instance, the number of mortgages created by the HFC per annum significantly decreased from 824 in 1994 to 417 in 1995 when inflation increased from 34.18% to 70.82%; decreased from 106 in 2002 to 85 in 2003 when inflation rose from 15.17% to 23.56%. This reflects the concerns of prospective mortgagors on mortgage affordability and their inability to finance mortgage repayments from their existing incomes.

The massive depreciation of the Ghanaian cedi relative to the major international currencies (such as the dollar and the pound sterling) over time also constrained the development of the housing finance markets in Ghana. For instance the exchange rate of US\$1 increased from ₵2,647.28 in 1999 to ₵7,869.57 by the end of 2002 (BoG, 2004-2008). The appreciation of the dollar to the cedi was approximately 176% over a period of 3 years. The continuous depreciation of the cedi and the uncertainty in the predictability of the exchange rate between the cedi and the major international currencies has constrained the ability of lenders to lend long-term in Ghana; they faced high currency depreciation risk. For instance in 1992 the HFC granted US\$1,900,000 (₵830,471,000) mortgage loans and the interest rate was about 29%. By assuming that the entire loan was granted at the end of 1992, constant annual payments, and 15 years mortgage duration, then the annual mortgage payment by the mortgagors of the HFC was US\$563,358 (₵246,238,029 or GH¢24,623.80). The payment loss to the HFC due to the depreciation of the cedi to the dollar



if mortgages were not denominated in dollars is shown in figure 4 (see next page).

From figure 4, the dollar payment remained constant throughout the fifteen (15) year period, but the dollar equivalent of the constant cedi payments declined over the period. In 1993,

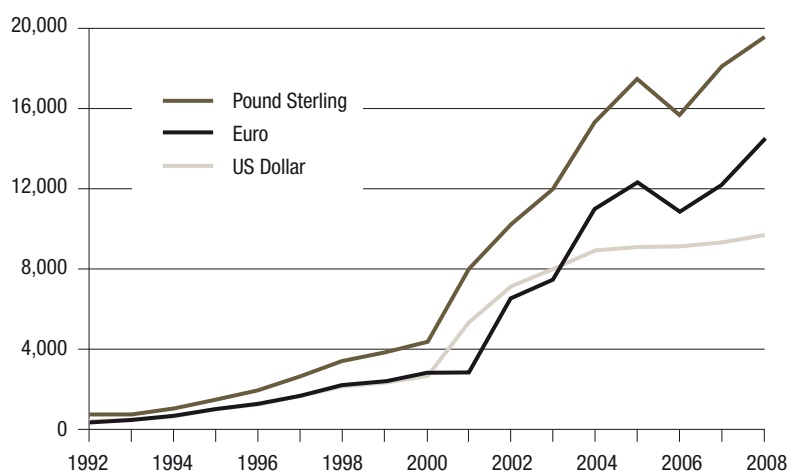
when the mortgagors made the first annual mortgage payment, the dollar equivalent of the constant cedi payment had decreased from US\$563,358 to US\$379,423.14 (a loss of 32.65% to the lender within a year). By 2007 when the mortgage was fully paid, the dollar value of the constant cedi payments had

decreased by 95.5% to US\$25,374.90. HFC was thus exposed to significant losses by offering cedi denominated mortgages to its mortgagors; this is represented in figure 4 by the gap between the constant dollar payments and the dollar equivalent of the constant cedi payment lines. In responding to the rapid depreciation of the Ghanaian cedi, the mortgagees adopted dollar denominated mortgages as a means of conserving the value of future debt repayment relative to foreign currencies. Asare and Whitehead (2004) noted that there is a “dollarization” phenomenon in the country. This process transferred the currency risk from the mortgagees to the mortgagors. Mortgagors were therefore required to repay debts denominated in dollars in the Ghanaian cedi and were therefore exposed to high incremental borrowing cost. The effect of the incremental borrowing cost on HFCs mortgagors in 1992 (see above example) is illustrated in figure 5 (see next page).

From figure 5, the mortgagors’ payment obligations increased significantly over the loan life due to the continuous depreciation of the cedi to the dollar. The increased indebtedness of the mortgagors is depicted by the difference between the constant cedi and the equivalent of constant dollar payments (actual cedi payments) lines in figure 5. The annual mortgage obligation of the mortgagors increased from ₵246,238,029 in 1993 to ₵1,491,366,266 in 1999 and ₵5,202,780,137 in 2007. The increase in the debt servicing obligation of borrowers (due to the incremental borrowing cost) was 2,012.91% from 1993 to 2007. The dollar denominated mortgages discouraged many potential mortgagors in the country. The average Ghanaian has therefore become apprehensive about the use of mortgages in housing acquisition; they fear that they may become perpetually indebted. The depreciation of the cedi therefore made the Ghanaian mortgage market uninviting to both lenders and borrowers. Because of the continuous depreciation of the Ghanaian cedi, most mortgagees in Ghana have focused on Ghanaian residents abroad at the expense of resident Ghanaians. For instance the HFC raised US\$18 million on the Ghana Stock Exchange (GSE) to finance a non-resident Ghanaian Mortgage Scheme, but no significant intervention has been made for resident Ghanaians. By using dollar denominated mortgages to reduce Ghanaian mortgagees’ exposure to inflation and currency depreciation risks, the mortgagees had limited incentives in developing the local mortgage market; the focus therefore was on Ghanaians with foreign denominated income.

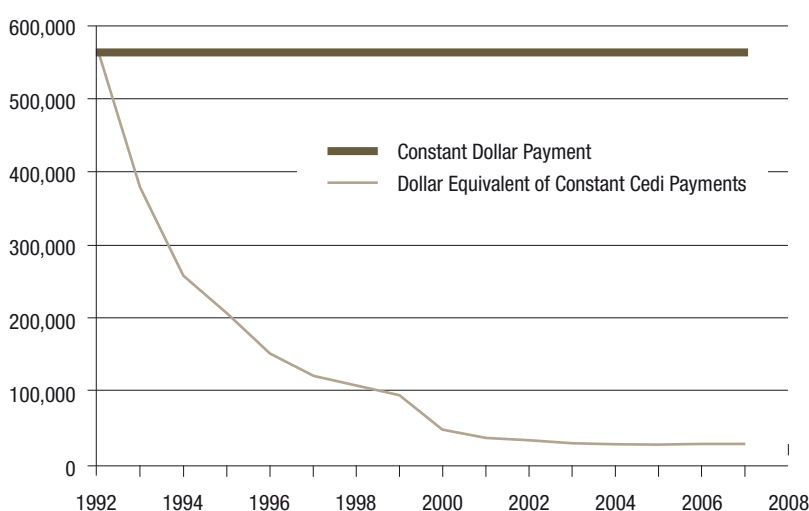
Interest rate risk has also hindered the development of the housing finance market in Ghana.

**Figure 3 Exchange Rate (Cedi per unit of foreign currency)**



Source: Ghana Statistical Service (2005, 2007); Bank of Ghana (2004-2008)

**Figure 4 Incremental Lending Loss**



Substantial interest rate risk may impede lending (Warnock and Warnock, 2008). Most mortgagees in Ghana relied mainly on depositors’ money to grant housing credit; they borrowed short and lent long. This risk is substantial in Ghana. Lenders therefore shunned the mortgage market due to their inability to manage the interest rate risk and the absence of appropriate hedging instruments in the country. For instance lenders could not rely on variable rate mortgages to hedge the interest rate risk in the country due to the generally volatile nature of the Ghanaian economy. The interest rate has been extremely high and unstable in the country. For instance interest rates were 39%, 47.50%, 51.58% and

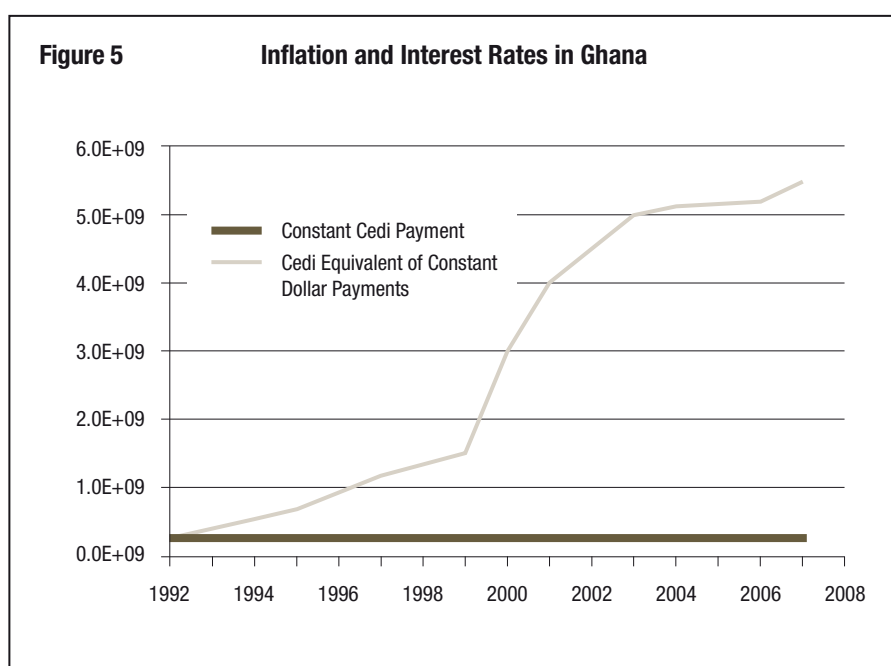
30% in 1992, 1995, 2000, and 2008 respectively (BoG, 2008).

The interest rate problem affected both lenders and borrowers in the country. On the demand side, most mortgagors were unable to service mortgages at such high interest rates due to the low levels of income in the country. On the supply side, the rising interest rate increased lenders risk of loss especially in fixed interest rate mortgages. As a result most lenders in Ghana preferred short term investments to long term ones for fear of being wiped out by the high interest rate volatility. Most lenders have dealt with the interest rate risk through short-term



investments such as treasury instruments. With the high interest rate volatility in Ghana lenders shunned long-term investments and borrowers were unable to predict how interest rates might fluctuate in the future. An important reaction to the interest rate rise in the country was a substantial drop in the number of new loans. For instance, new mortgage originations by the HFC decreased by about 51% from 1994 to 1997 when interest rates in the country increased from 37.5% to 48.25%, and decreased by 65% from 1999 to 2001 when interest rates surged from 40.5% to 55%. Housing finance in Ghana has therefore suffered substantially. Lenders can control interest rate risk via the use of capital market instruments and floating rate mortgages. However, the capital market instruments are unavailable in Ghana. The high interest rate in Ghana has also expanded the default risk associated with the use of floating rate mortgages. Interest rates are not only high but have also been volatile; this high level of uncertainty disrupted the development of the housing finance markets. Short term instruments such as government bonds (Treasury bills) offered an attractive rate and with its low risk nature offered a better investment alternative to lenders in Ghana. Most lenders in Ghana therefore invested heavily in treasury bills; this had a negative impact on the riskier housing investment in the country. For instance, the rate on the 91-Day Treasury bill in 2000 and 2001 were respectively 41.99% and 30.05% (BoG, 2004); this offered attractive yield but with low risk to investors. Clearly, short term government bonds were a preferred form of investment for deposit money banks relative to housing investment.

Lenders have generally been uninterested in the housing finance markets in Ghana. This action of lenders reflects the risk associated with the high and volatile inflation rates, unstable currency, and high interest rate volatility, their associated uncertainty and hence limited investor confidence in long term investments such as housing credit in the Ghanaian economy. The volatility of the economy is a major obstacle that mortgagees face in their attempts at developing sustainable housing finance markets in the country. Mortgagees in the country are exposed to high credit risk exposure due to high macro-economic instability. Mortgagees in Ghana are therefore exposed to significant risk and a high possibility of loss. It is therefore unsurprising that the formal finance institutions have shown limited interest in the housing finance market in Ghana. Also, the unstable macro-economic environment has made housing credit unaffordable in the country; this has led to borrowers disinterest in the mortgage market. Nominal



interest rates are high as a result of high inflation rates but income levels are low or not increasing enough to offset the effect of inflation on mortgage payments. This has priced out prospective mortgagors. Macro-economic volatility has made the Ghanaian mortgage market unattractive to both mortgagees and mortgagors in the country.

#### 4. The way forward for the Ghanaian mortgage market

A well developed formal finance market will provide sustainable funds for housing investment in Ghana. This can however, not be attained without a strong and stable macro-economic environment (that is low and predictable inflation, low interest rates, and stable currency). It is therefore important for policy makers to strive to make the mortgage market attractive to both mortgagors and mortgagees. It is vital for policy makers to focus on addressing all the macro-economic impediments to the development of the Ghanaian mortgage market. It is germane for the state to improve the macro-economic environment. This will ensure that mortgages are affordable to mortgagors and it will also reduce the default risk exposure of mortgagees arising from high nominal interest rates and its associated high "front-loading" of cost to mortgagors'.

A low inflation rate will ensure that mortgages are not rendered unaffordable by lenders ability to correctly anticipate inflation. Low inflation volatility will enable lenders to effectively anticipate inflation during the underwriting process and

reduce the risk of loss in the real value of latter mortgage payments that may result from unanticipated inflation. Stable and predictable inflation rates will enhance lenders mortgage pricing activities and reduce the risk of real economic losses as a result of high unpredictable inflation rates. This will shift incentives from short-term to long-term ventures and thus promote long term housing investment. It will make mortgage lending an attractive investment for formal finance institutions. On the part of homebuyers, low inflation rates will reduce the "tilt effect" that borrowers' particularly first time homebuyers face in times of high inflation rate and volatility. This will make housing credits more affordable thereby allowing most households to qualify for, and be able to access, mortgages.

Stable and low exchange rate will also reduce the currency risk assumed by lenders. This may make it possible for mortgagees to price mortgages in the domestic currency instead of pricing it in some foreign currency. Pricing mortgages in the local currency will reduce the incremental borrowing cost that mortgagors may face by taking foreign currency denominated mortgages. A stable currency will remove the uncertainty that surrounds the value of mortgage repayments over time in terms of a more stable foreign currency. It will enable lenders to borrow long and lend long. Similarly, a stable interest rate will reduce the interest rate risk that lenders in Ghana face. Prudent management of the Ghanaian economy will create the required environment for the establishment of a strong, vibrant, and effective housing finance market in the country.

## References

- Akuffo, A. (2006). HFC'S Pioneering Role and Rational for Conversion to Full Banking Activities: Sustainability of Specialised Lenders. The World Bank/International Finance Corporation (IFC), Housing Finance Conference, 16-17 March, Washington DC, USA.
- Asare, E. L. and Whitehead, C. (2006), "Formal mortgage markets in Ghana: nature and implications", *RICS Research paper series*, Volume 6, Number 13, October 2006
- Bank of Ghana (2004-2008). Statistical Bulletin (various issues). Accra: BoG
- Bank of Ghana (2007). The Housing Industry in Ghana: Prospects and Challenges, Bank of Ghana Policy Briefing Paper. Accra: BoG
- Bank of Ghana (2009). Statistical Bulletin. Accra: BoG
- Boamah, N.A. (2003). "The Impact of Liberalisation on Residential Property Financing in Ghana", Unpublished MPhil Thesis, Department of Land Economy, University of Cambridge-UK.
- Boamah, N.A. (2009). "Secondary Mortgage Market (SMM): Is it Right for Financing Housing in Ghana?" *Journal of Science and Technology*, Vol. 29, pp 17-27.
- Brueggeman, W.B., and Fisher, J. D. (2001). Real Estate Finance and Investments, McGraw-Hill, Irwin
- Buckley, R.M. (1989), "Housing Finance in Developing Countries: A Transaction Cost Approach" Development Economics, Working Paper, the World Bank, December 1989.
- Buckley, R.M. (1996). Housing Finance in Developing Countries, Palgrave Macmillan.
- Chambers, M.S., Garriga, C., Schlagenhauf, D. (2008). "The Loan Structure and Housing Tenure Decisions in an Equilibrium Model of Mortgage Choice", FRB of St. Louis, *Working Paper*, No. 2008-024A
- Chiquier, L., Hassler, O. and Lea, M. (2004). "Mortgage Securities in Emerging Markets" The World Bank, Policy Research Working Paper 3370, August.
- CHF International (2004). Strategic Assessment of the Affordable Housing Sector in Ghana, December, 2004.
- Ghana Statistical Service (2005). Population Data Analysis Report, Policy Implications of Population Trends, Vol.2. Accra: GSS
- Ghana Statistical Services (2007). Economic Survey, 2001-2005. Accra: GSS
- Ghana Statistical Service (2008). Ghana Living Standards Survey, Report of the Fifth Round (GLSS 5). Accra: GSS
- Gyamfi-Yeboah, F. and Boamah, N. A. (2003). "Towards a Sustainable Mortgage Market in Ghana", *Ghana Review International*, September, 2003.
- HFC Bank (2008). Annual Report and Consolidated Financial Statements for the Year Ended 31 December, 2007. Accra: HFCB
- Jaffe, M. and Renaud, B. (1996). "Strategies to Develop Mortgage Market in Transition Economies", *Policy Research Working Paper*, the World Bank, Financial Sector Development.
- Karley, N.K. (2008), "Ghana Residential Property Delivery Constraints and Affordability Analysis", *Housing Finance International*.
- Konadu-Agyeman, K. (2001). The Political Economy of Housing and Urban Development in Africa: Ghana's Experience from Colonial Times to 1998. Praeger Publishers, Westport.
- Mishkin S.F (2006). The Economics of Money, Banking and Financial Markets. Eighth Edition, Pearson Education Inc.
- Nickell, S. (2002). "Monetary Policy Issues: Past, Present, Future", Speech at Business Link and the Coventry and Warwickshire Chamber of Commerce, Leamington Spa, June 19th, 2002.
- Sacks, P., Merrill, S., and Rabenhorst, C., (2003). "Developing Secondary Mortgage Markets in Southeast Europe: Assessment of the Mortgage Markets in Romania", UI Project 06940-001, January 2003
- Sandilands, R.J. (2002). "How To Motivate Faster Growth in Colombia: The Leading Sector Strategy Revisited", Estudios Gerenciales.
- Warnock, V.C. and Warnock, F.E. (2008). "Markets and Housing Finance" Hong Kong Institute for Monetary Policy, Working Paper No. 3/2008
- Wolswijk, G. (2005). "Some Fiscal Effects on Mortgage Debt Growth in the EU", European Central Bank, *Working Paper Series*, NO. 526, September, 2005.

# Indicators of an Integrated Rental Market in Austria

↳ By Mundt A.<sup>1</sup> and Amann, W.<sup>2</sup>

## 1. Introduction

At first glance, it appears that post-war housing policies have converged across many European countries towards strategies that rely on deregulated markets and reduced government intervention in the procurement, management and regulation of housing provision. While the directions taken in individual countries have differed in form, extent and impact, common trends in housing policies are indeed discernible. These include strong promotion of individual home ownership, privatisation of the social housing stock, deregulation of housing finance markets and the use of housing benefits to secure affordable housing for lower income households.

Yet, the drift away from social housing and supply-side subsidies has not been universal. Indeed, recent overviews have revealed a more variable picture (Czischke 2005, CECODHAS 2007, Whitehead & Scanlon 2007, Scanlon & Whitehead 2008, Lawson 2009). While some countries, e.g. England and Germany, have sold or demolished large amounts of social housing, there are several countries, such as Austria, France, the Netherlands and Switzerland that continue to exercise more direct influence on new supply, using a range of policy measures. Furthermore, in a number of countries, including Ireland and Spain, a return to the promotion of housing by means of supply-side subsidies is reconsidered in order to stimulate ailing national economies. These recent tendencies make it even more legitimate to take a closer look at countries with pronounced social housing sectors and traditional housing policy elements in order to provide alternatives for future housing policy developments.

Austria, an example of such a country, has shown a very successful housing policy in the past and now manages to keep up favourable housing outcomes by rather low public subsidies of around 1,07% of GDP (Förster 1996, Deutsch 1999, Donner 2000, Matznetter 2002, Amann & Lugger 2006, Reinprecht 2007, Reinprecht & Levy-Vroelant 2008, Deutsch 2009, Amann et al. 2009).

Favourable housing outcomes have importantly been influenced by the two main players in the social rental housing market, i.e. the limited-profit housing associations and the municipalities. Indeed, the Austrian rental market as a whole is formed by the two segments of the social (limited-profit/municipal) rental market and the commercial/private rental market segment. Both of them show a high degree of competition. For this reason, Jim Kemeny's theory of countries of unitary rental markets, i.e. markets characterised by the absence of regulatory barriers to competition between profit and non-profit rental housing providers, offers a good basis for analysing Austrian housing policy and making this country more comparable to other European experiences.

In Kemeny et al. 2005, the comparison of several national housing policy schemes (Switzerland, Sweden and the Netherlands) offers a kind of coordinate system to analyse other countries with unitary rental markets on their way to market integration, i.e. where non-profit housing is competitive, provides good market coverage and therefore shows a rent-dampening influence on the overall rent level. In the following sections we will extend this procedure to the Austrian case and try to show that Austria is close to the ideal of an integrated rental market, as was already indicated by Matznetter (Kemeny et al. 2001).

Why is it important whether Austria can be classified as a country with an integrated rental market? There are two particular answers to this question: First, Kemeny's theory of dual versus integrated rental markets is basically a divergence theory allowing for differing housing policy schemes that do not grow more and more alike across Europe (Matznetter 2006, Malpass 2008). It thereby offers an explanation for the high continuity of Austrian housing policy and at the same time provides an alternative development for other national housing policies, especially in transition countries. Second, Kemeny's classification indirectly wants to carry the point that countries are well advised to enhance an integrated rental market because of the positive repercussions on their housing policy outcomes: "*The advantages of the integrated rental market include tenure diversity, housing choice, low housing costs, and as a buffer against wild and extreme swings in housing prices*" (Kemeny et al. 2005, p. 871). A main advantage is seen in the low general level of housing costs with little differences across tenures.

Empirically, these advantages of unitary rental markets concerning housing and social policy outcomes have so far neither been demonstrated by Kemeny himself nor by many other researchers. Yet, very recently, a study by Czasny et al. (2008) has started to fill this gap by an analysis of the correlation between country-type and household housing costs and satisfaction with living conditions based on EU-SILC data. In a comparison of the 15 "old" European member states, countries with a low share of owner-occupancy (which basically equal countries with unitary rental markets) generally attain better results concerning housing costs, housing quality and household satisfaction with home,

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living environment and standard of living than countries with high owner-occupancy shares.

The effect of a unitary rental market as a dampener of economic cycles has shown its success recently (ECB 2009). The link between extreme house price booms in the past and the current financial and economical crisis in Europe is most visible in Ireland and Spain. Both countries built their economic growth on real estate dynamics and are now experiencing the highest unemployment levels in Europe. These correlations are no coincidence.

The aim of this contribution therefore is not only to identify the elements that classify Austria as a country on an advanced stage from a unitary to an integrated rental market (section 2 and 3), but also to address the retrograde tendencies that might impede such a development (section 4) and thereby threaten positive housing outcomes in Austria (section 5).

## 2. Kemeny's theory of rental markets

Kemeny (1995, et al. 2001, et al. 2005) has developed a theoretical framework where the structure of the rental sector is a fundamental variable for analysing housing policies in welfare-states. According to this theory, some countries have dual rental markets while others have unitary markets.

In countries with a dual rental market the state successfully shields the private rental market from competition out of the social sector. The social sector is reserved for low income households and functions purely as a residual safety net. The providers of social housing are closely controlled by the state and strict means-testing is applied. The private market, on the other hand, is characterised by high rents and insecure rental contracts. Therefore the two segments (the social and the private) composing the dual rental market do not compete with each other.

In contrast to countries with dual rental markets, other countries have built up unitary rental markets. A unitary rental market – characterised by the absence of regulatory barriers to competition between profit and non-profit providers – is the precondition for the social rental market to enter into competition with the commercial rental market and thereby have a rent-dampening influence on the overall rent level. In countries with unitary rental markets, the social housing segments plays a large role in overall rental housing, is financed by state or federal subsidies, is open to broad classes of the population and is often provided by semi-private or private

limited-profit providers. If non-profit renting is allowed to compete with for-profit renting in a unitary rental market and if high quality rental housing can be provided at a lower price, for-profit landlords will have to lower their rents in order to stay competitive: *“This is the main channel through which the non-profit sector is able to act as a dampener on the general level of rents”* (Kemeny et al. 2005, p. 858).

Later on, Kemeny et al. (2005) have shown how a unitary rental market may develop into a truly integrated rental market over time, passing through phases where the non-profit rental sector first influences, then leads and finally dominates the market. At a final stage, an integrated rental market may emerge out of a unitary rental market if the supply of non-profit housing is competitive, provides good market coverage and reaches a sufficient magnitude (Kemeny et al. 2005, p. 861). The evolution into an integrated rental market may be measured by the role non-profit housing providers play in the rental market. In this process solidity plays a key role. The solidity of a housing association may be measured by the ratio of its equity capital to market value. The higher this proportion, the lower is dependence on debt capital on the financial markets, which may lead to lower financing costs. Solidity is supposed to increase over time as both outstanding debt is paid back and the market-value of a housing association increases. Through this process of maturation, i.e. the increasing possibility to rely on equity capital, limited-profit providers will grow more and more able to set lower rents than for-profit providers because they only need to cover their costs.

Unitary rental markets can be found in European countries that have shown a strong commitment to social market policies, the employment of limited-profit or non-profit providers of social services and where German cultural influence has been traditionally strong: Austria, Denmark, Germany, the Netherlands, Sweden and Switzerland. The considerations in the following sections support the view that the Austrian rental market has reached a high level of market integration in Kemeny's sense.

## 3. The position of Austrian social housing: Indicators of market integration

### 3.1 Tenure distribution in Austria

In Austria as a whole, there are approximately 3.5 million households with main residence (2008). Some 51% of these households live in their own property: 10% in owner-occupied

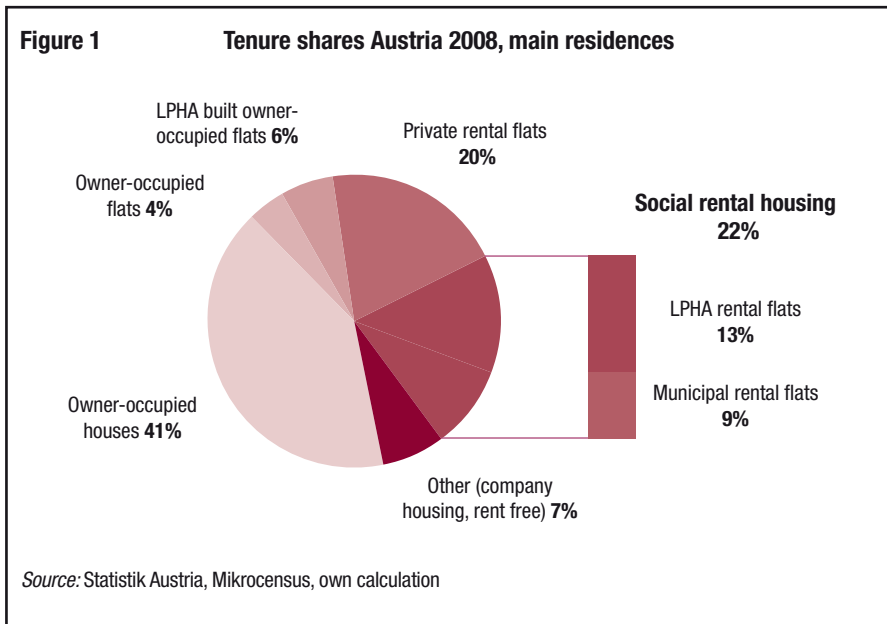
apartments in multi-storey buildings (including apartments built commercially and by limited-profit housing associations) and 41% in single family houses (see Figure 1). The percentage of single family houses ranges from 80% in some regions (Burgenland) to only 4% in Vienna. 40% of all households live in the rental sector, which is divided into three sub-sectors: Private rental apartments used to make up the major part within the rental market, but they have been overtaken by the social rental housing sector in the last decade. Nowadays there are approximately 20% private rental apartments rented from commercial providers or private individuals. There are some 300,000 municipal dwellings (9% in Austria, the majority of which (some 220,000 dwellings) are owned by the municipality of Vienna. Limited-profit housing associations (from now: LPHA) supply a rental stock equivalent to 13% of all main residences. In total (municipalities and LPHA) over 22% of all tenures may be regarded as social rental housing. This is approximately 10 percent points above EU-15 average. According to tenure in a European context, Austria therefore is very close to Sweden and Denmark.

There are strong regional and local differences in this division of the Austrian housing stock: The nationally high percentage of social rental dwellings is due to the importance of Vienna, where 38% of the stock may be classified as such. In other regions, especially where single-family houses are predominant, social rental dwellings represent a much lower share of the overall housing stock. Nevertheless, social rental housing represents a predominant share of all dwellings in multi-storey buildings and in the rental stock in all regions (Amann & Mundt, 2009).

When defining LPHA and municipal rental stock as social housing, it is important to bear in mind that a much larger part of the housing stock was co-financed by the public and may be considered subsidised housing. Especially owner-occupied houses and LPHA-built owner-occupied apartments received large amounts of subsidies.

### 3.2 Historical Origins and Continuity

Preferential tax treatment of residential buildings has a long-standing tradition in Austria and can be traced back to as early as 1774, when newly constructed buildings were excluded from paying property tax for a period of 10 years. Pieces of legislation throughout the 19th century (Fuchs & Lugger 2008) used the same instrument of preferential tax treatment in order to stimulate new construction and set economic impulses, and at the same time alleviate extreme housing need (Fuchs & Mickel 2008).



Additionally, in the sense of bottom-up self-initiatives, a certain housing-reformer movement has been evident in Austria since 1848. It was founded on the ideas of early socialist housing co-operatives in the sense of Robert Owen and on housing initiatives of the liberal Germans Victor Aimé Huber and Hermann Schulze-Delitzsch. The first housing co-operatives in Austria were founded as associations around 1850 and later on, when the legal framework was established in 1873, as co-operatives in the legal sense (Ludl 2007). When in 1908 the Emperor Franz Joseph I's government jubilee fund was set up, this led to the first big wave of foundations of co-operatives that now had access to public financing through the fund. Until then, co-operative housing was almost exclusively available for either high rank officials or railroad employees (often through Cottage Associations) – not as in other European countries where philanthropic welfare ideas of low-income housing developed at a much earlier stage. These initial groups of beneficiaries correspond very well to the structure of Austrian social policy, which has followed a corporatist, etatist logic from its very beginning (Esping-Andersen 1990, Unger & Heitzmann 2003, Österle & Heitzmann 2009). With the implementation of the fund lower income civil servants also had access to housing funds and in the years prior to the outbreak of World War I in 1914, some workers' housing co-operatives took up building activity (Lugger 1994).

In the period after World War I there was a second boom in foundations of co-operatives. It remains disputed to how far the implementation of a special housing fund in 1921 was the

key driver for this development, or whether the Vienna Settlers' Movement, a mass grass-roots movement, which had its origins in the massive food and housing shortage during and after the First World War and operated since 1918, played a crucial part in establishing the preconditions for a co-operative self-help movement (Patera 1987, Novy & Förster 1991, Ludl 1998). For the first time the co-operative movement encompassed a massive building programme and focused on lower-income households.

The early 1920s, characterised by the rising political power of the social-democratic party first in Vienna then at federal level, was the beginning of municipal housing provision. In Vienna particularly municipal housing provision (*Red Vienna*) moved into the core of the welfare state structure. Over the period of 1923 to 1930 around 64,000 municipal apartments were built in Vienna alone. Co-operative housing was integrated into public funding and control during these years: the bottom-up origins were increasingly transformed into the general top-down structure of housing policy (funding to 90% by joint funds from municipal and federal levels in form of long-term loans or grants to co-operatives, building land provision, coordination and control over special agencies set-up by municipalities). Nevertheless, a certain crowding-out of the co-operative movement took place with a continuous relocation of funds directly to municipal housing provision (Reinprecht & Levy-Vroelant 2008). During the Nazi-regime social housing construction came to a standstill.

After the end of World War II and the setting-up of special funds, the general spirit of recon-

struction also led to the third wave of LPHA foundations. Throughout the first decade after the war the stock of co-operative housing grew by a factor of 4.8 (Ludl 1998, p. 338). After the peak of 1955 the number of housing co-operatives declined, but their stock and share in new-construction increased: In Vienna in the year 1973 LPHAs' new construction outnumbered new construction by the municipality. This trend continued: In the early 1990s Vienna municipality stopped building new social rental buildings altogether, leaving the field to LPHA which gained hegemony in new social housing construction in many municipalities.

In summary, with LPHA housing continuously gaining ground in the general housing subsidy schemes, it increasingly became the auxiliary instrument of public housing provision (Sommer 2008). LPHA also provides housing for middle income households, while municipal housing focuses particularly on lower incomes. New social housing construction is now largely in the hands of LPHA contributing to their relative hegemony in the field. Yet, there was no large scale transfer of municipal housing to LPHA. Far-reaching allocation rights of municipalities in LPHA housing stock as well as the public control over bricks and mortar subsidies keeps the public influence on LPHA activity very high.

In Austria both political parties that formed a hegemonic coalition for the main part of the post-war period were a driving force behind the political support for LPHA. The LPHA concept which revived after the war was therefore strongly promoted by both ruling parties. While subsidised owner-occupied apartments were the favourite product of the Conservatives' housing policy, subsidised public and non-profit rental housing was on the Social Democrats' housing agenda (Matznetter (2002, p. 273). This division of political support is still visible in the LPHA scheme today, where almost every LPHA has a strong affiliation to one or other of these parties. Additionally, there is strong individual support for social housing provision in Austria amongst some leading politicians: Werner Faymann, present Chancellor of the Austrian government, used to be chairman of the Viennese Tenants' Counselling, Ewald Nowotny, the current governor of the Austrian national bank, used to be ordinary professor at the Vienna University for Economics and often took a stand as supporter of the Austrian subsidy system for social housing (e.g. Nowotny & Heidl 1994, Nowotny 2006).

For the continuity of housing policy, the high degree of federalism in Austrian policy and the relatively long adherence to Keynesian fiscal policy are also of importance. Fundamental policy changes are more difficult to achieve in coun-

tries with substantial federalism than in highly centralised ones (Matznetter 2002). The complex system of responsibilities in a federal state has a tendency to petrify things. The funds attributed to the regions for the fulfilment of housing policy tasks, represent a large part of their disposable funds, and are therefore strongly defended by the regions in the four-year “revenue equalisation negotiations” between federal state, regions and municipalities (Lawson & Dalton 2010).

### 3.3. Limited Profit Housing Associations: Volume and regulation

At the end of 2009 there were 191 active LPHA in Austria, differing in their legal status and owner constellation. There were 99 co-operatives and 92 limited-profit companies, set-up either as private limited or as joint-stock companies. Co-operatives are owned jointly by their members while the limited-profit companies are owned by local or regional public bodies, religious institutions, trade unions, chambers, associations and parties. Apart from the ownership structures, there are only minor differences in legal status, since all LPHA are regulated by the same law, the *Limited-profit Housing Act (Wohnungsgemeinnützigkeitgesetz) of 1979*, are embedded in the same supervisory structure and are represented by the same umbrella organisation (GBV). LPHA manage around 750,000 housing units.

Taking a look at the general European trends in social housing policy which have been identified (McLennan et al. 1997, Gibb 2002, Priemus & Dieleman 2002, Van der Heijden 2002, Whitehead 2003, Lujanen 2004, Whitehead & Scanlon 2007) it is easy to see that the peculiarity of Austria lies partly in the fact that it has not followed suit.

Unlike many other European countries, Austria still co-finances a large part of new construction by housing subsidies which are, for most builders, an indispensable part of financing. This is the case for private individuals who build their own homes, as well as for LPHA, commercial developers and municipalities. This explains the very high 80% of housing starts that receive some kind of subsidy.

There is an obvious trend towards owner-occupation in many European countries with an increased promotion of this type of tenure also to households of limited income. This development goes hand in hand with the rental sector losing importance, and accounting for a constantly decreasing share in new construction. In Austria, on the other hand, social rental housing

construction gained importance over the last decades. As in Denmark (Scanlon & Whitehead 2007, p. 8), also in Austria, the supply of social housing has increased over the past decades, especially because LPHA are predominant in new construction in the multi-storey stock. While in the 1970s LPHA housing only represented around 20% of housing output, with some 31% it now forms a high proportion of total new construction. That is more than half of all multi-storey housing construction. During the economic crisis, LPHA housing construction clearly functioned as a stabiliser against rapidly dropping private and commercial housing starts. In contrast to other European countries, where the golden age for social housing ended in the mid 1970s (Malpass 2008, p. 18), LPHA in Austria have increased their predominance since then. Additionally, there is no general trend towards owner-occupation on the demand side of the housing market: especially in inner city areas and with younger households, renting still constitutes the preferred housing form (Ball 2005, p. 28; Bauer 2005, p.10; Deutsch 2009, p. 292).

All LPHA activity is governed by the Limited-Profit Housing Act which is a federal state responsibility. By international comparison it is a very tight and detailed law: it determines very clearly what LPHA can do, and what they cannot do.

In short, the system of LPHA created by the Limited-Profit Housing Act can be characterised as follows:

- Cost coverage principle: cost-rents are calculated on estate-level, there is no rent-pooling at LPHA level. A special mark-up for periodic renovation and maintenance works is considered. Due to long term regional subsidies, financing costs and therefore cost-rents are low.
- Limited field of action: The housing associations have to focus on housing construction, refurbishment and housing management. In fact, it is a strong incentive for high construction quality and social balance if housing associations function as long-term managers..
- There is an obligation to build. Any interruption in building activity requires the expressed permission of the respective regional government.
- Binding of property – limited profit: Any profits made by the LPHA have to be reinvested either in the purchase of land, or in refurbishment and new construction. Interests paid on own equity to the owners and shareholders is limited.

In addition to the Limited-Profit Housing Act of the federal state level, since the devolution

of responsibility for housing promotion from the federal state to the nine regions in the late 1980s, (Amann 1999) subsidies and requirements to LPHA (quality and ecological standards, income-limits of future residents) are determined by the nine different regional housing subsidy laws.

There is a very tight system of control over LPHA activities and expenses: a supervisory board is mandatory for every LPHA. Additionally, all LPHA have to join the umbrella organisation (GBV). Its function is twofold: on the one hand it acts as a lobbying organization in the interest of its members; on the other hand it incorporates the Audit Association (*Revisionsverband*) which is responsible for the annual auditing. In addition to the general auditing procedures, the Audit Association examines whether the provisions of the Limited-Profit Housing Act are observed, in particular, the calculation of rents and the tie-up of property. The auditor's report has to be made public also to the general assembly of housing co-operatives and must be presented to the supervisory authority, i.e. the regional governments. These have a number of possible sanctions, such as the withdrawal of public subsidies or the rescinding of LPHA status. The tight operational framework set down by the Limited-Profit Housing Act; the supervision through the regional authorities, and the fact that many housing associations are owned by semi-public bodies, mean that housing associations are regarded as the lengthened arm of housing policy.

### 3.4. Competition: Access, quality and rent levels

Similar to most Scandinavian countries and the Netherlands, Austria follows an extended understanding of social housing. The nine regional governments use their respective housing subsidy laws in order to determine formal income limits for the access to social housing. These income limits are usually very high and cover around 80% of the population, whereby municipal housing in some regions targets lower incomes than LPHA. For both, income criteria are only checked once and future income developments are not taken into account. For these reasons the term affordable rental housing would be more adequate, but in order to stick with international concepts we used the term social housing throughout this article. The eligibility-check of individual households as well as the allocation of dwellings is usually carried out by municipalities or by the LPHA.

At the same time new construction as well as the existing housing stock of LPHA are quite

attractive, both in terms of quality and location. Cost-rent is not particularly cheap but moderate. LPHA principally service households with long-term requirements and stable incomes. As a result the LPHA concentrate on a large customer group which is well served in other sub-sectors as well, in particular by the single family housing market in the outskirts of the cities and by a specific sub-sector of the private market.

Limited-profit and for-profit housing providers do not only compete on the level of rents, but building quality and tenure security play a decisive role in attributing a leading role to LPHA over private rental stock, likewise for the existing housing stock, as for new construction. The existing private rental housing stock (except for the up-market new-built segment) is of lower quality, usually less energy efficient and, other than for the very old rental contracts, determined by shorter terms and less secure tenancy rights. LPHA rental contracts in general are open-ended and tenant participation is high, especially in the co-operative housing stock. Housing quality of the new-built LPHA housing stock is very high because projects are evaluated before qualifying for supply-side subsidies. The evaluation of projects differs between regions, but usually costs of the project, building quality, energy efficiency and architecture are taken into account. Low energy consumption has become a priority of the regions' intervention and accordingly only certain projects qualify for supply-side subsidies. Nowadays, space heating requirements of new buildings have to be under 40 kWh/m<sup>2</sup>.a to be eligible for supply-side subsidies (Amann & Lugger 2007). Austria's world-leading role in the construction of multi-storey *passive houses* is supported by LPHA new construction.

Overall, price determination in the private rental market is strongly influenced by competition from the cost-determined rent level in the social sector. Therefore, increases in the general rent level occurred whenever competition from the LPHA stock was weak. Rent increases in the LPHA stock were lower than in the private rental stock (Bauer, 2005, p. 13). During the 1990s the rent level in the Austrian social rental sector increased considerably less than those in other European countries during that decade (Czerny 2001, p. 15). As for the most recent development, the price index concerning dwellings (rents, service charges, repairs, maintenance, energy) grew much faster than the general CPI in the period of 2005 to 2008. Yet, as Bauer (2008) confirms, this over-average increase can be attributed especially to the strong dynamics of service charges and repairs (waste disposal, water, maintenance) as well as energy costs, i.e. electricity and heating. Rental dynamics, on the other hand, developed under the general

price level. While the CPI increased by 5.4% from 2005 to Feb. 2008, rents (without service charges) increased only by 4.7%.

Due to the large array of dwellings varying in size, age and location, and at the same time targeting large parts of the population, social housing providers are able to compete effectively with profit-driven housing companies on the market. There is strong evidence that social housing in Austria not only influences but leads the rental market (Kemeny et al. 2005, Kemeny 2006, p. 5).

### 3.5. Solidity

Low expenditure on demand-side subsidies (10% in 2008), a social housing stock that can afford refurbishment from its own revenues and a growing stock of affordable dwellings has, over decades, built up a social heritage, which is the major reason for the currently low public expenditure on housing (see below). For the same reason countries like the Netherlands or Sweden were able to reduce their public commitments to social housing in recent years.

In comparison to other European countries, new social housing construction in Austria relies heavily on the developer's own assets. Some LPHA are today very strong in equity, particularly the ones that have produced rental housing for long periods. This is due to an element of divergence from the cost-rent principle allowed by the Limited-Profit Housing Act: after the redemption of capital and state loans (mostly after 35 years), LPHA are allowed to continue collecting rents for dwellings in the matured housing stock, as long as these revenues are used to reduce capital costs or to refinance other projects and stay under a limit of 3.13 €/m<sup>2</sup> (2010). This element of company-based rent-pooling or cross-subsidisation has a decisive influence on increasing a LPHA's financial room for manoeuvre and in passing on past state subsidies to more recent housing stock. Otherwise, there are only very limited possibilities for company-based rent-pooling and exceptions from strictly project-based cost-rents (Heindl 2008, p. 171). The balance sheet figures of LPHA in sum amount to 31 bn. € (GBV 2008). They have increased more than eight-fold since the year 1970 (Ludl 2007, p. 8).

Long-term loans are still applied as the fundamental subsidy instrument, which marks a distinction to many countries in the European Union, where other subsidy instruments - e.g. interest subsidies - are preferred (Priemus & Boelhouwer 1999, Whitehead & Scanlon 2007). The interest that may be charged on the developer's own equity (mostly for land purchase)

and therefore be included in cost-based rents is stipulated by law and revised annually. Since 2003 it has been limited to 3.5%. Future tenants own capital contributions may be collected in the form of upfront payments which consequently reduces the tenants' rental burden. In case of a tenant exchange, these capital contributions will be paid back with a depreciation of 1% p.a. and may again be collected from the new tenant. If tenants' contributions exceed 60 €/m<sup>2</sup> (2010), a right-to-buy after 10 years is granted (see below in detail).

In addition to the public subsidy schemes of the regions, capital market funding has major significance. Mortgage loans are, as anywhere, an important product of commercial banks. LPHA are regarded as low risk borrowers and due to co-financing by housing subsidies and supervision by regional authorities, capital market financing has a good L/V-ratio and very low risk. These factors amount to a structure of an implicit public guarantee for the loans taken out by the LPHA. Yet, unlike the situation in many other countries (Priemus & Boelhouwer 1999, Whitehead 2003, Foundation Homeownership Guarantee Fund et al. 2004), no formal public underwriting or guarantee fund had to be established in Austria.

Special housing banks issue housing construction convertible bonds (HCCB), which enjoy preferential tax treatment. Money raised through these bonds has to be attributed to Austria-based housing construction programmes which are eligible for additional object-side subsidies by the regions. This way private funds raised by the housing banks can be channelled towards projects which the public considers worth funding (Amann et al. 2009).

As the LPHA sector becomes more mature there are certain tendencies to phase out supply-side subsidies for new construction. Together with the partial withdrawal of financial resources from the sector, there are certain barriers to the development towards a truly integrated rental market in Austria.

## 4. Problems and retrograde threats

### 4.1 Privatisation of social housing stock and RTB

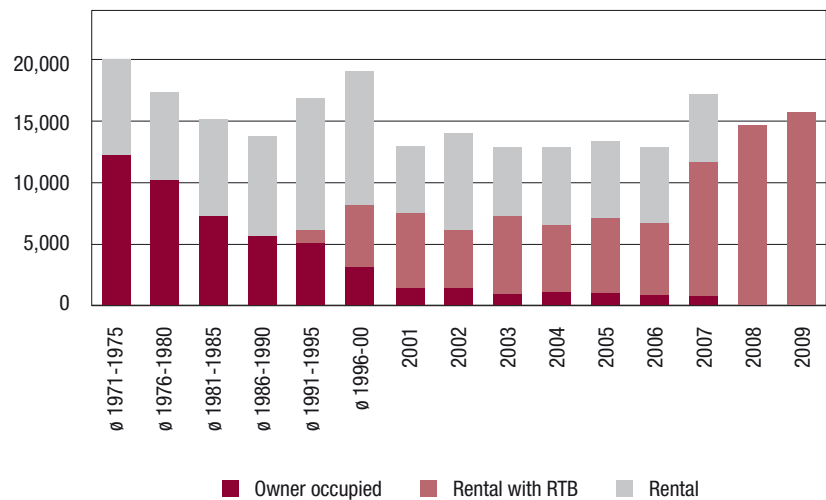
There was a critical moment towards the creation of a large-volume social housing market when in the year 2000 the conservative federal government decided to enable public authorities to withdraw LPHA-status from their own housing

associations. This decision led to the situation that 22% of the LPHA housing stock was under imminent danger of being privatised or sold to commercial real estate companies. While regional and municipal governments clearly expressed their reliance on LPHA housing and therefore declined to opt for commercialisation of their own LPHA, federally owned LPHA were partly sold to Austria-based banks, assurance companies and real estate investors in 2004. 58,000 rental apartments lost their LPHA-status in this process, but cost-rent regulation and tenant protection was determined to stay in place for the whole lifespan of the buildings (Mundt 2008). Yet, allocation rights by the state were lost. A sell-off to commercial investors resulted necessarily since only a very limited part of sitting tenants were willing, or able, to buy the apartments that were offered to them for slightly under-market prices. Meanwhile, through increased new construction by LPHA, the loss of social housing stock in 2004 is more than compensated: LPHA now again manage more dwellings than before the sell-off. The sell-off of housing associations owned by the federal state level was motivated by the reconsideration of federal state responsibilities. In 2004, the then centre-right federal government held that managing LPHA was not one of its core responsibilities.

Another example, which theoretically poses a threat to the integrated rental market in Austria, but empirically has not had many repercussions so far, is the introduction of a right-to-buy in new LPHA housing stock since 1994. At the beginning of the housing co-operatives' building activity, only rental apartments were produced. In the 1950s and 60s LPHA started to build owner-occupied apartments which due to public subsidies were cheaper than commercial apartments, and only available for households up to a certain income limit. Throughout the 1970s the share of subsidised owner-occupied housing in new construction outdid the percentage of rental apartments (see Figure 2). From the early 1980s onward, this trend was reversed. Owner-occupied apartments in LPHAs' production declined continuously. Since the mid-1990s, new subsidised rental construction carried out by LPHA is endowed with a right-to-buy. After a period of 10 years, tenants of these new-built apartments have a 5 year time-frame to exercise their right-to-buy. This new form of tenure was introduced as a compromise between lobbies in favour of a growing share of owner-occupation, and those supporting the social rental sector. Until now only relatively few households have exercised their right-to-buy. It is estimated that only 20% of the affected rental stock will be bought by tenants (Mundt et al. 2009). Prices for these dwellings do not have to be strictly cost-based but may get close to market prices. For some LPHA this

Figure 2

LPHAs' new construction by tenure type



Source: GBV; IIBW, estimates for 2008 and 2009 (tenure distribution unknown).

is an opportunity to increase their equity, which, according to the Limited-Profit Housing Act, has to be reinvested in new construction.

Together with the fact that nowadays hardly any subsidised apartments for owner-occupation are being built by the LPHA (Figure 2), the low percentage of households that actually make use of their right-to-buy confirms the current hegemony of rental dwellings. Yet, the percentage of dwellings with a right-to-buy within new construction is increasing. There is a tendency that the right-to-buy will be exercised mainly by better off tenants, and for very high-quality apartments, contributing to a residualisation of the remaining housing stock.

## 4.2. Residualisation

The social rental sector in Austria is directed at low and middle income households (*affordable* rental housing). Yet, especially in the new-built LPHA housing stock of high quality, cost-rents are comparatively high and the required tenants' down payments function as barriers for low income households. In order to address this problem, there are income-related housing benefits available for the LPHA housing stock in all regions, and means-tested equity substitution loans in some regions.

Nevertheless, many vulnerable households are still lodged in the private rental market in Austria. A truly integrated rental market in Kemeny's sense would lead to an equal distribution of poor and vulnerable households across different tenures. This is only partly the case in Austria. Until

now, residualisation of low income households in the social housing stock is still very low as documented by EU-SILC data, describing the at-risk-of-poverty-rate by tenure of dwelling (income less than 60% of median income). While 18% of municipal tenants in Austria are at-risk-of-poverty, this share amounts to 12% in the LPHA housing stock, to 8% in owner-occupied apartments, to 16% in the open-ended private rental stock and to 26% in the fixed-term private rental stock (Statistik Austria 2009, p. 54).

Since older long-term contracts are still rent-regulated to a high degree, some apartments in the private rental market charge the lowest rents on the market. Also, low quality and sub-standard apartments, where they can still be found, only exist in the private rental market. In the past this segment played an important role in housing poor and immigrant households especially in Vienna (Giffinger 1998). In the last two decades, due to renovation works carried out, partly with regional subsidies, the availability of this type of low quality yet cheap apartments has decreased.

Although desirable from a housing quality point of view, this has also resulted in increasing housing expenses for low income and immigrant households. These expenses will in the future be partly financed by growing demand-side housing benefits granted independently of tenure. Also, as access to social housing has improved for foreigners, vulnerable immigrant households will increasingly be taken up by this sector. Access of foreigners and immigrants to social housing is still not universal in all regions, and



was allowed only recently, which has impeded a steady integration of immigrants in the social housing stock (Schallaböck & Fassmann 2008, Czasny 2009). It will be a future challenge for the administration to prevent inter-ethnic conflicts, especially in the large-scale municipal housing stock (Reinprecht 2007).

A major threat to this integration process is the still strictly estate-based calculation of cost-rents in the social housing stock. A certain degree of rent-pooling, at least could in the future contribute to prevent residualisation in the old and cheap social housing stock. Threats towards an increasing residualisation in the social housing stock also arise from an alteration of the general income distribution, which has become more uneven over the last years (Guger & Marterbauer 2005). Already one fourth of all municipal tenants in the largest Austrian cities, especially Vienna, are at-risk-of-poverty (Statistik Austria 2009, p. 54).

**4.3. Loss of earmarked funds, new financing structure**

Considering the last decade, housing subsidies are declining in real terms in most regions. This is the outcome of a process that started in 1996 during which the earmarking of housing funds was gradually lifted. Historically, a 1% housing tax on income, half from employers and half from employees, as well as a fixed percentage of income tax was earmarked for housing policy, and therefore increased continuously with employment and wages. In 1996 the federal share within these earmarked funds was fixed at 1.78 bn. € p.a. and consequently declined in

real terms (see Figure 3). Later, the earmarking for federal shares as well as the repayments of housing subsidy loans was abandoned altogether. In the most recent (2008) revenue equalisation negotiations between the federal state and the regions, the earmarking of housing funds was abolished altogether, leaving future housing policy commitments to the discretion of the regions.

As a consequence, the nine Austrian regions hold more and more responsibility for the budgets they grant to housing policy measures and it is already clear that some regions, due to financial constraints, spend less, and divert housing subsidies away from new construction towards energy goals and infrastructure. Likewise, the share of demand-side subsidies, which still is only around 10%, is increasing continuously in some regions.

**4.4. The EU-Question**

There has been a trend in recent literature to focus on the influence EU competition policy has on social housing matters in the member states (Mundt 2006, Elsinga et al. 2008, Boccadoro 2008, Ghékière 2008, Gruis & Priemus 2008, Amann 2008). As there is no legal basis in the EC Treaty that allows housing policy to be developed at EU level, housing falls within the responsibility of the Member States. Yet, there is a clear tendency of EU legislation at a more general level to gain influence over housing matters. More specifically, this means that housing policy measures have to be in line with the EU State aid and Competition Legislation, as laid down in the Treaty, in later Decisions of the Commission and by rulings of the European Court of Justice. The

EU influence is seen to be critical towards unitary rental markets, so far visible in the Commissions investigations into Swedish and Dutch housing policy (Ghékière 2008).

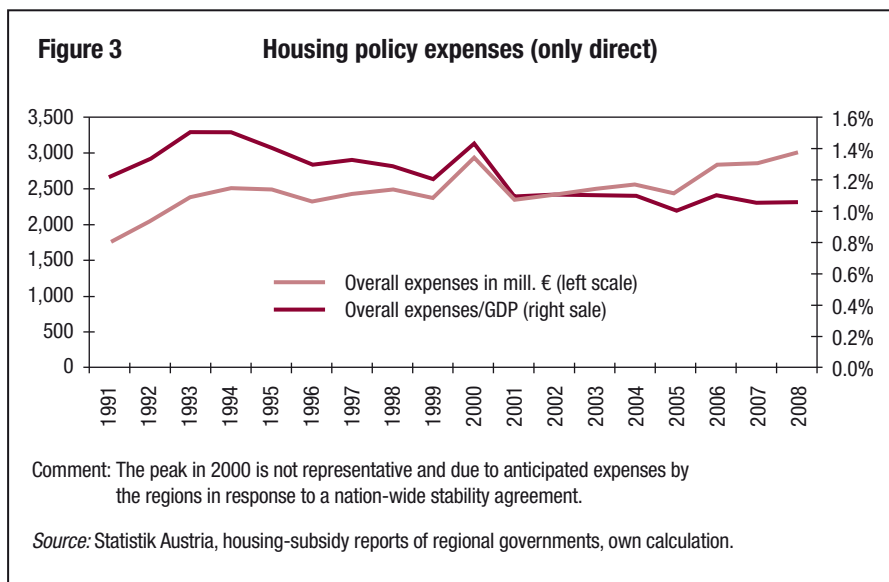
Various elements of this critique can be identified: First, the EU Commission increasingly seems to promote a residual type of social housing provision with targeted allocation, means-testing and a concentration of housing measures on a clearly defined part of the population. The Commission clearly stated "...that letting homes to households that are not socially deprived cannot be regarded as a public service" (European Commission Directorate General Competition 14.7.2005, p. 39). Second, there is no similar government involvement for the social and the for-profit rental market as the social rental sector still enjoys special protection and regulation from the government. This selective support of social renting is viable for the formation of an integrated rental market, but according to the EU Commission threatens to distort competition. Third, there are indirect or direct cross-subsidy mechanisms in place through which social housing providers are active in the rental-market with the intention of making profits in order to invest these profits in new social housing construction.

Considering the system of LPHA in Austria, which has been described above, there are certain mechanisms that may render Austria safe from these types of criticism: income limits controlling the access to social housing, albeit generous, guarantee a selection of households that corresponds to a definition of public services, especially as the policy goal to prevent residualisation comes into play. The field of operation of LPHA is clearly defined and tightly controlled. There is a clear separation of commercial and limited-profit activities and accounts.

On the other hand, if the EU demonstrates support for a strongly residual type of social housing provision, and demands a reduction of the social housing stock in general, there will be problems for any European integrated rental market, in Austria and elsewhere.

**5. What is at stake?**

Considering housing policy outcomes, Austria performs well when compared to other European countries, particularly in terms of security of tenure, housing amenities, accessibility of infrastructure and habitable space (Czasny 2004, p. 57, Stigel 2004). Satisfaction with living conditions and living environment are equally positive in an international comparison (Czasny et al. 2008, Statistik Austria 2009). In the largest urban areas there has been a decline in ethnic



segregation over the last decade (Schallaböck & Fassmann 2008, Czasny 2009).

More specifically, the advantages Kemeny sees for a unitary rental market in comparison to a dual one are clearly visible when considering the Austrian example. One of these advantages is the existence of tenure choice between social renting, private renting and owner occupation. In addition, the unitary rental market avoids the residualisation and stigmatisation of the social rental sector and its tenants, and prevents the spatial segregation of vulnerable groups in social housing areas. While all over Europe the share of low-income families living in the social sector is increasing (Van der Heijden 2002, Whitehead & Scanlon 2007, Scanlon & Whitehead 2008), a very important aspect of the Austrian social housing sector is the still large diversity of its occupants. Czasny (2004) studied the concentration of low income households and ethnic minorities in bad quality housing, and the social rental sector within the EU. By calculating the degree of over representation of the lowest income quintile in the cheapest social rental stock, he found that Austria was within the nine countries of the EU included in the analysis, the one with the lowest share. Rental housing, especially high-quality new LPHA construction, still constitutes a favourable housing form for families, middle income households and new entrants to the housing market. It clearly provides an affordable alternative to home-ownership (Mundt et al. 2009).

Low housing costs are a decided goal of integrated rental markets. Indeed, the general price level in Austria is comparatively low. Household expenditure on housing is only 21.2% (2008), representing much less of a burden than in other European countries (Czasny et al. 2008, p. 89). Consequently, there is a very low proportion of households with rent arrears (2.4% opposed to 9.1% EU25-average). On an individual household basis for 14% of Austrian households housing costs represent a heavy burden, the EU25-average of 29% is twice as high. For single parents the respective shares are 28% compared to 43% (Czasny et al. 2008, p.67).

Another advantage of unitary rental markets and large rental sectors in general are their ability to prevent strong market dynamics (Tutin 2008). Unlike the boom-bust cycles of housing markets of many home-ownership based countries in Western Europe and North America, the smoother Austrian cycle has been far less volatile, even in 2008/09. Price developments have been steadily positive, but low. According to ECB data on house price growth rates between 1999 and 2007, Austria has shown extremely slow growth with annual percentage growth rates of 1.2%, while in the Euro area house

prices rose by 6.1% annually (ECB 2009). Consequently, tenancies of different duration exhibit only marginal cost differences in Austria. While rents for new contracts (less than 5 years) are on EU25-average 27% higher than of old contracts (more than 15 years), this difference amounts to only 10% in Austria (Czasny et al. 2008, p. 45). New construction is on a stable and relatively high level, and is expected to stay high despite dropping housing starts throughout Europe. The obvious gain of smoother housing-market cycles is the prevention of negative redistributive outcomes of excessive prices in the boom and, equally important, of sharp corrections in the bust.

## 6. Conclusions

By analysing Austrian housing policy within the context of Kemeny's distinction of countries with dual, and countries with unitary rental markets, we not only try to provide an adequate framework for explaining the functioning of the social housing sector, but we also try to show the link between pronounced social housing sectors and positive general housing outcomes. If Austria managed to build up a functioning integrated rental market, this model may serve as an example of sound housing policy and may provide positive inputs for CEE and SEE countries that nowadays are experiencing the range of problems an integrated rental market is set-up to prevent: the lack of housing choices, decreasing affordability of market-entrants and vulnerable households and harmful excessive housing market dynamics.

Austrian housing policy has maintained many features of the post-war housing policy scheme, especially the large and growing importance of limited-profit housing associations, the focus on supply-side subsidies and a broad understanding of social housing. Austria's rental market comes close to Kemeny's prototype of an integrated rental market when measured by the legal framework within which it operates, as well as by the solidity and volume of the sector, the rent levels, and competition with the for-profit sector, and the orientation to large parts of the population. In terms of quality, especially from an environmental point of view, the new-built LPHA rental stock clearly leads the market.

With 22% of all tenures, the social housing sector in Austria has reached an adequate volume to strongly compete with the private rental sector in terms of rent levels and customers. Historically, two roots of the social sector can be identified: the municipal housing stock originates mainly from the interwar period and the heyday of Red Vienna. The LPHA stock, on the other hand,

gained importance after the war, and its success was founded on the tight legal framework provided by the Limited-Profit Housing Act, the large-scale and continuous supply-side subsidies and, most importantly, the strong commitment by the ruling parties, and its integration in Austrian corporatism and federalism.

For the future, especially two aspects will be of importance for the Austrian integrated rental market in order to keep up and improve its capacities. One is to keep up a balanced social mix and to prevent residualisation. This will depend on the viability of an orientation to large parts of the population, despite any influence EU legislation may entail, and its ability to attract middle incomes owing to low housing costs, and high construction quality. The other factor is the social housing sector's ability to entail a continuous and adequate building activity in a context where public subsidies are likely to decrease. This will depend on the sector's self-sufficiency and the activation of its own equity, as well as on the ability to attract capital market financing by means of new strategies, as already realized by the measures of housing banks and the issue of housing construction convertible bonds. The permission of rent-pooling within the LPHA housing stock of different age and quality would be a welcome refinement.

## References

- Amann, W. (1999) *Kompetenzverlagerungen im Wohnungswesen*, Vienna, FGW.
- Amann, W. (2008) *Die österreichische Wohnungsgemeinnützigkeit als Europäisches Best Practice-Modell*, in: Lugger, K. & Holoubek, M. (Ed.) *Die österreichische Wohnungsgemeinnützigkeit – ein europäisches Erfolgsmodell*, Vienna, Manz pp. 3-14.
- Amann, W. & Lugger, K. (Ed.) (2006) *Der soziale Wohnbau in Europa. Österreich als Vorbild*, Vienna, IIBW.
- Amann, W. & Lugger, K. (Ed.) (2007) *Ökologisierung der Wohnbauförderung im mehrgeschossigen Wohnbau*, Vienna, IIBW.
- Amann, W. & Mundt, A. (2009) *Armutspolitische Dimensionen von Gemeindewohnraum, gemeinnützigem Wohnbau und Wohnbauförderung*, in: Dimmel, N., Heitzmann, K. & Schenk, M. (Ed.) *Armut in Österreich*, Innsbruck, Studienverlag, pp. 538-556.
- Amann, W., Lawson, J. & Mundt, A. (2009) *Structured Financing Allows for Affordable Rental Housing in Austria*. *Housing Finance International* June 2009, p.14-18.

- Ball, M. (2005) *RICS European housing review 2005*, London et al., Royal Institution of Chartered Surveyors.
- Bauer, E. (2005) *Entwicklung der Wohnungskosten. Ursachen, lang- und kurzfristige Effekte, Auswirkungen. Vorläufiges Manuskript*, Vienna, GBV.
- Bauer, E. (2008) *Lang- und kurzfristige Entwicklung der Bau- und Wohnungskosten. Impuls-Statement 10 June 2008*, Vienna, GBV.
- Boccardo, N. (2008) *The impact of European Union rules on the definition of social housing*, in: Scanlon, K. & Whitehead, C. (Ed.) *Social Housing in Europe II. A review of policies and outcomes*, London, LSE, pp. 261-270.
- CECODHAS (2007) *Housing Europe 2007: Review of Social, Co-operative and Public Housing in the 27 EU Member States*, Brussels, CECODHAS European Housing Observatory.
- Czasny, K. (2004) *Internationaler Vergleich wohnungsbezogener Transfers*, Vienna, SRZ.
- Czasny, K., Feigelfeld, H., Hajek, J., Moser, P. & Stocker, E. (2008) *Wohnzufriedenheit und Wohnbedingungen in Österreich im europäischen Vergleich*, Vienna, SRZ.
- Czasny, K. (2009) *Wohnbau und Integration*, in: Die Zukunft March 2008, extended version available online: <http://www.srz-gmbh.com/kommentare/Wohnbau%20und%20Integration.pdf>
- Czerny, M. (Ed.) (2001) *Wohnungswirtschaft vor neuen Herausforderungen*, Vienna, WIFO.
- Czischke, D. (2005) *Social Housing in the EU*, Brussels, CECODHAS European Housing Observatory.
- Deutsch, E. (1999) *Wohnbaufinanzierung und intergenerationelle Vermögensbildung*, Vienna, Linde.
- Deutsch, E. (2009) *The Austrian Social Rented Sector at the Crossroads for Housing Choice*, in: *European Journal of Housing Policy* Vol. 9 (3), pp. 285-311.
- ECB (2009) *Housing Finance in the Euro Area, Structural issues Report*, Frankfurt a.M., European Central Bank.
- Elsinga, M., Haffner, M. & Van der Heijden, H. (2008) *Threats to the Dutch Unitary Rental Market*, in: *European Journal of Housing Policy* Vol. 8 (1), pp. 21-37.
- Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*, Oxford, University Press.
- Förster, W. (1996) *Austria*, in: Balchin, P. (Ed.) *Housing Policy in Europe*, London, Routledge, pp. 113-124.
- Foundation Homeownership Guarantee Fund (2004) *Government Guarantees in the Rental and Owner-Occupied Sector. An International Comparison 2004*, The Netherlands, Foundation Homeownership Guarantee Fund.
- Fuchs, W. & Mickel, A. (2008) *Wie alles begann: Die Wurzeln der modernen gemeinnützigen Wohnungspolitik*, in: Lugger, K. & Holoubek, M. (Ed.) *Die österreichische Wohnungsgemeinnützigkeit – ein europäisches Erfolgsmodell*, Vienna, Manz, pp. 155-166.
- Furchs, W. & Lugger, K. (2008) *Wohnungspolitische Vorschriften in Österreich von 1782-1940. Eine Quellensammlung*, Vienna, Manz.
- GBV (2008) = Österreichischer Verband Gemeinnütziger Bauvereinigungen, *Die gemeinnützige Wohnungswirtschaft in Zahlen: Verbandsstatistik Stand zum 31.12.2008*, Vienna, GBV.
- Ghèkière, L. (2008) *Social housing as a service of general interest*, in: Scanlon, K. & Whitehead, C. (Ed.) *Social Housing in Europe II. A review of policies and outcomes*, London, LSE, pp. 271-286.
- Gibb, K. (2002) *Trends and Change in Social Housing Finance and Provision within the European Union*, in: *Housing Studies* Vol. 17 (2), pp. 325-336.
- Giffinger, R. (1998) *Segregation in Vienna: Impacts of Market Barriers and Rent Regulations*, in: *Urban Studies* Vol. 35 (10), pp. 1791-1812.
- Gruis, V. & Priemus, H. (2008) *European Competition Policy and National Housing Policies: International Implications of the Dutch Case*, in: *Housing Studies* Vol. 23 (3), pp. 485-505.
- Guger, A. & Marterbauer, M. (2005) *Langfristige Tendenzen der Einkommensverteilung in Österreich*, *WIFO-Monatsberichte 9/2005*, Vienna, WIFO.
- Heindl, P. (2008) *Wohnzivilrechtliche Teile des WGG im Verhältnis zum MRG*, in: Lugger, K. & Holoubek, M. (Ed.) *Die österreichische Wohnungsgemeinnützigkeit – Ein europäisches Erfolgsmodell*, Vienna, Manz, pp. 167-178.
- Kemeny, J. (1995) *From Public Housing to the Social Market, Rental Policy Strategies in Comparative Perspective*, London, Routledge.
- Kemeny, J. (2006) *Corporatism and Housing Regimes*, in: *Housing, Theory and Society* Vol. 23 (1), pp. 1-18.
- Kemeny, J., Andersen, H.T., Matznetter, W. & Thalman, P. (2001) *Non-retrenchment reasons for state withdrawal: developing the social rental market in four countries*. Institute for Housing and Urban Research Working Paper 40, Uppsala, Uppsala University.
- Kemeny, J., Kersloot, J. & Thalmann, P. (2005) *Non-profit Housing Influencing, Leading and Dominating the Unitary Rental Market: Three Case Studies*, in: *Housing Studies* Vol. 20 (6), pp. 855-872.
- Lawson, J. (2009) *The transformation of social housing provision in Switzerland mediated by federalism, direct democracy and the urban/rural divide*, in: *European Journal of Housing Policy* Vol. 9 (1), pp. 45-67.
- Lawson, J. & Dalton, T. (2010) *Institutional choices in Federal structures governing the funding and delivery of housing programs*. Research Paper presented at the ENHR conference in Istanbul, 4<sup>th</sup> to 7<sup>th</sup> July.
- Ludl, H. (1998) *Housing cooperatives in Austria. Structure, principles, economic importance*, Vienna, GBV.
- Ludl, H. (2007) *Limited-profit Housing Associations in Austria*, Vienna, GBV.
- Lugger, K. (1994) *Geschichte und Entwicklung der gemeinnützigen Bauvereinigungen in Österreich*, in: Korinek, K. & Nowotny, E. (Ed.) *Handbuch der gemeinnützigen Wohnungswirtschaft*, Vienna, Orac, pp. 15-66.
- Lujanen, M. (Ed.) (2004) *Housing and Housing Policy in the Nordic Countries*, Copenhagen, Norden.
- MacLennan, D., Stephens, M. & Kemp, P. (1997) *Housing Policy in the EU Member States*. European Parliament Directorate General for Research Social Affairs Series Working Document 14, Luxembourg, European Parliament.
- Malpass, P. (2008) *Histories of social housing: a comparative approach*, in: Scanlon, K. & Whitehead, C. (Ed.) *Social Housing in Europe II*, London, LSE, pp. 15-30.
- Matznetter, W. (2002) *Social Housing Policy in a Conservative Welfare State: Austria as an Example*, in: *Urban Studies* Vol. 39 (2), pp. 265-282.
- Matznetter, W. (2006) *Quo vadis, comparative housing research?* Paper presented at the ENHR Conference Ljubljana, 2.-5.7.2006.

- Mundt, A. (2006) *EU-Legislation and Social Housing: An Overview*. Paper presented at the ENHR Conference, Ljubljana, 2.-5.7.2006.
- Mundt, A. (2008) *Privatisierung von gebundenem sozialem Wohnraum*, in: Lugger, K. & Holoubek, M. (Ed.) *Die österreichische Wohnungsgemeinnützigkeit – Ein europäisches Erfolgsmodell*, Vienna, Manz, pp. 337-350.
- Mundt, A., Amann, A. & Komendantova, N. (2009) *Kaufoptionswohnungen der Gemeinnützigen – Strategien für hohe Verkaufsquoten*, Vienna, IIBW.
- Novy, K. & Förster, W. (1991) *Einfach bauen, genossenschaftliche Selbsthilfe nach der Jahrhundertwende*, Vienna, Picus.
- Nowotny, E. & Heidl, W. (1994) *Gemeinnützige Wohnungswirtschaft und Wirtschaftspolitik*, in: Korinek, K. & Nowotny, E. (Ed.) *Handbuch der gemeinnützigen Wohnungswirtschaft*, Vienna, Orac, pp. 69-106.
- Nowotny, E. (2006) *Wohnbaupolitik und Wohnbauförderung – Wirtschafts- und finanzpolitische Effekte*, in: Hoscher, D.; Wala, T. & Wurm, K. (Ed.) *Jahrbuch des Vereins für Wohnbauförderung 2006*, Vienna, LexisNexis, pp. 35-43.
- Österle, A. & Heitzmann, K. (2009) *Welfare state development in Austria. Strong traditions meet new challenges*, in: Schubert, K.; Hegelich, S. & Bazant, U., (Eds.) (2009) *The Handbook of European Welfare Systems*. London & New York: Routledge, pp. 31-48.
- Patera, M. (Ed.) (1987) *Genossenschaftsentwicklung im österreichischen Wohnungsbau*, Frankfurt a.M. & New York, Campus.
- Priemus, H. & Boelhouwer, P. (1999) *Social Housing Finance in Europe: Trends and Opportunities*, in: *Urban Studies* Vol. 36 (4), pp. 633-645.
- Priemus, H. & Dieleman, F. (2002) *Social Housing Policy in the European Union: Past, Present and Perspectives*, in: *Urban Studies* Vol., 39 (2), pp. 191-200.
- Reinprecht, C. (2007) *Social Housing in Austria*, in: Whitehead, C. & Scanlon, K. (Ed.) *Social Housing in Europe*, London, LSE, pp. 35-43..
- Reinprecht, C. & Levy-Vroelant, C. (2008) *Housing the poor in Paris and Vienna: The changing understanding of 'social'*, in: Scanlon, K. & Whitehead, C. (Ed.) (2008) *Social Housing in Europe II. A review of policies and outcomes*, London, LSE, pp. 209-224..
- Scanlon, K. & Whitehead, C. (Ed.) (2008) *Social Housing in Europe II. A review of policies and outcomes*, London, LSE.
- Schallaböck, U. & Fassmann, H. (2008) *Wohnen und Stadtentwicklung. Bedeutung des Wohnens für Integrationsprozesse*, in: BMI (Ed.) *Gemeinsam kommen wir zusammen. Expertenbeiträge zur Integration*, Vienna, BMI.
- Sommer, A. (2008) *Wohnungsgemeinnützigkeit und Good Governance*, in: Lugger, K. & Holoubek, M. (Ed.) *Die österreichische Wohnungsgemeinnützigkeit – Ein europäisches Erfolgsmodell*, Vienna, Manz, pp. 81-92.
- Stagel, W. (2004): *Wohnbauförderung und Wohnversorgung im internationalen Vergleich*. Endbericht im Auftrag der oö. Landesregierung, Ressort Wohnbau, Linz: isw.
- Statistik Austria (Ed.) (2009) *Einkommen, Armut und Lebensbedingungen. Ergebnisse aus EU-Silc 2007*, Vienna, Statistik Austria.
- Tutin, C. (2008) *Social housing and private markets: from public economics to local housing markets*, in: Scanlon, K. & Whitehead, C. (Ed.) *Social Housing in Europe II. A review of policies and outcomes*, London, LSE, pp. 47-62.
- Unger, B. & Heitzmann, K. (2003) *The adjustment path of the Austrian welfare state: back to Bismarck?*, in: *Journal of European Social Policy* Vol. 13 (4), pp. 371-387.
- Van der Heijden, H. (2002) *Social Rented Housing in Western Europe: Developments and Expectations*, in: *Urban Studies* Vol. 39 (2), pp. 327-340.
- Whitehead, C. (2003) *Financing Social Housing in Europe*, in: *Housing Finance International* Vol. 17 (4), pp. 3-9.
- Whitehead, C. & Scanlon, K. (Ed.) (2007) *Social Housing in Europe*, London, LSE.





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