IUHF
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Summer 2014

HOUSING FINANCE INTERNATIONAL

➜ Brazil's house price surge

➜ Unlocking home truths:
   A swarm of policy reforms needed

➜ Germany's rental property sector:
   A cornerstone of housing market
   resilience?

➜ The future of social housing in Northern
   Ireland: Structure, funding and supply

➜ The German housing finance system: does it
   offer lessons in stability to other markets?

➜ Stock market fluctuations, housing wealth
   and consumption behaviour in Turkey (Part 1)

Event to mark the 100th Anniversary of the IUHF – September 11-12 2014 – Munich
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International Union for Housing Finance
Housing Finance International

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Contents:

Editor's introduction

When does a buoyant market become a bubble?

↳ **By Andrew Heywood**

National housing markets are something of a political enigma. Political leaders claim to like them "stable" but in states with high levels of home ownership, actually like them to be "buoyant" (that is rising) or even to be rising rapidly. This is usually good for winning elections since the majority of the electorate in a pre-election period will see their housing equity increasing and will, it is believed, be more likely to bestow their vote on the incumbent party. In countries such as the UK and Ireland there will normally be more voters who are already clinging to the housing ladder than there are voters whose chances of joining them may be blighted as house prices spiral out of reach. However, Governments do not want a housing bubble; bubbles lead to wider economic problems and lack of confidence amongst home owners and buyers. They may leave a legacy of chronic un-affordability and are bad political news. A cynic might suggest that the trick for politicians is to promote buoyancy in the market without ending up with a bubble.

This may be one reason why UK Chancellor of the Exchequer, George Osborne, has not offered any substantive response to the recent warnings of the Head of the IMF, Christine Lagarde, that the UK housing market may be overheating. Osborne's re-iteration of previous government reassurances that the Bank of England has the necessary independent powers to deal with any problems is, technically, true, but may not be entirely reassuring since the Bank could be forgiven for being wary about using its independence to curb the housing market in a pre-election year. After all, that independence is granted by Parliament and hence ultimately by government, and what government grants it can, ultimately, take away.

The IMF is not alone in drawing attention to rapidly rising prices in order to raise the possibility of a housing bubble in the UK. Other pundits have raised similar fears, although until very recently prices outside London have risen only modestly. Concern has also focussed on The Government's *Help to Buy* scheme, which the IMF has suggested might need to be curtailed at some stage. The scheme is in two parts. The first, offers purchasers of new-build properties up to a value of £600,000 (well above the current average house price of £205,000)

attractive so called "equity loans" for up to 20% of the value of the property. To date, the scheme has issued almost £4 billion in such loans. The second part of *Help to Buy* offers loan guarantees to facilitate high loan-to-value mortgages, and controversially, is available for second-hand as well as new-build properties.

Help to Buy has probably been politically popular, having assisted several thousand households, mainly on modest incomes, to purchase their homes. Most of those assisted have been first-time buyers and most properties purchased are new-build. Whether its scale has been sufficient to materially contribute to rapidly rising prices is more difficult to determine, its inflationary effect may well have been modest, particularly as the majority of *Help to Buy*- assisted transactions have been away from the housing market hot-spots. At present the jury is out.

What the *Help to Buy* experience and the Government's anodyne response to the IMF do illustrate is that governments often have an interest in delaying action to curb housing markets and that there may be a temptation for governments to act in ways that more disinterested analysts may see as creating additional risk. Thus in analysing housing markets where prices have risen beyond reasonable levels in terms of affordability, or where there are fears of a developing bubble, the actions or inaction of government may well be a relevant factor.

Two articles in this issue of HFI focus on housing markets where house prices have become a cause for concern. Fears of a housing bubble in Brazil have been voiced by a number of parties. In a fascinating article Claudia Magalhaes Eloy and Rafael Fagundes Cagnin examine recent developments in the Brazilian housing market and its component parts in order to answer the key question of whether the rapid price rises of recent years constitute a bubble, or whether the housing finance system is resilient enough to correct itself without a catastrophe. In so doing they examine closely the actions of both the federal Government and the public banks.

New Zealand as a country has only been very occasionally represented in the pages of HFI. We

are therefore particularly pleased to be able to offer an overview of the New Zealand housing market by Shamubeel Eaqub, an accomplished economist based in Wellington. Eaqub draws attention to the culture of home ownership and investment that have fuelled rapid house price rises. He describes a situation in which owning a home has become unaffordable for many, leading to a sharp fall in the rate of homeownership. At the same time, Eaqub highlights the deficiencies in the private rented sector that still magnify the attractions of home ownership in popular perception and make renting a poor alternative for those who cannot afford to buy. He makes a number of recommendations to improve the market and strengthen the housing finance sector.

As home ownership levels stagnate or fall in a number of developed countries, the German housing market with its high level of private renting has often been seen as proof that a prosperous economy can co-exist with modest levels of home ownership – less than 50%. In this issue we are pleased to present an article by Oliver Lerbs that analyses the make-up of the rental sector in Germany which at 55% of all homes is relatively over twice as large as the EU average. Lerbs draws attention to the diverse tenant population within the sector and to the different types of landlords to be found, including the so-called "amateur landlords" who own the majority of properties. He concludes that the rental sector contributes to the stability of the housing finance system in Germany but also points out that there would be issues to be overcome for other markets seeking to emulate the German model.

In a contribution that compliments the Lerbs article, Mark Weinrich argues that there are lessons to be learnt from the overall stability of the German housing finance system should policy makers for other markets seek to make changes to prevent a repeat of the banking crisis. Weinrich suggests that it is possible to combine financial stability with a higher level of home ownership than currently prevails in Germany itself.

Joe Frey has written previously in HFI on housing in Northern Ireland and in this issue

he provides a cogent overview of the social housing sector from the creation of the Northern Ireland Housing Executive during the 1970's to manage almost all social housing in the province to the recent debates that seem set to take the sector in new directions.

The final article in this issue is the first part of a two part analysis of the links between housing wealth and consumption when com-pared to those pertaining to financial wealth. Focussing on Turkey the article by Çiğdem Akın provides cogent analysis and raises important issues for those with an interest in the links between housing, consumption and economic performance.

As many of you will be aware, the 100th anniversary of the IUHF is to be celebrated at a major conference in Munich in September.

HFI will have a presence at the conference and we look forward to meeting many of our readers at this important event. Don't forget to book your place!

Contributors' biographies

Çiğdem Akın is a public management economist at the Asian Development Bank. Previously, she worked as an assistant professor of economics at the Johns Hopkins University SAIS. She obtained her Ph.D. in economics from George Washington University and M.A. in international development from the International University of Japan as a Monbusho scholar.

Rafael Fagundes Cagnin is an economist who holds a master's degree in Economic Theory at Campinas State University [Unicamp-IE]. He was a research fellow at the International Financial Architecture project of the National Development Research Program [PNPD] in the Instituto de Pesquisa Econômica Aplicada [IPEA], between 2010 and 2012. Since 2010, he has been a researcher at Fundação do Desenvolvimento Administrativo [Fundap] and since 2013, also a professor of Macroeconomics at Faculdades Metropolitanas Unidas [FMU]. He conducts studies in international economics, monetary and financial economics.

Shamubeel Eaqub is the principal economist at NZIER, an economic consultancy firm. He advises senior leaders in the private and public sectors. He is a respected and often controversial economist. He has worked as an economist in Wellington, Melbourne and Auckland in leading international banks. Shamubeel lives in Wellington with his wife. He grew up in Canterbury and holds a BCOM with Honours in Economics from Lincoln University.

Joe Frey is Head of Research in the Northern Ireland Housing Executive, a post he has held since 1998. In this role he has overall responsibility for delivering a wide-ranging programme of strategic and customer-focused related research, including the Northern Ireland House Condition Survey and the Continuous Tenant Omnibus Survey. He is lead author of the Housing Executive's annual publication *Northern Ireland Housing Market: Review and Perspectives*. Prior to his current appointment, Joe held a number of positions in Housing Management and before becoming a project leader in IT and latterly the Housing Executive's Strategic Planning Manager. He is also a part-time lecturer in housing at the University of Ulster.

Dr. Oliver Lerbs works at the International Finance and Financial Management department of the Centre for European Economic Research [ZEW] in Mannheim, Germany. He holds a Master and doctoral degree in economics. His current research focuses on housing, finance, international trade and business cycles.

Claudia Magalhães Eloy is a consultant on housing finance and subsidy policy in Brazil, who currently works for FIPE [Fundação Instituto de Pesquisas Econômicas] and has worked for the World Bank [TA] and for the Brazilian Ministry of Cities and Companhia de Desenvolvimento Urbano e Habitacional of São Paulo [CDHU]. Claudia has also participated in the development of the National Housing Plan, in the analysis of the Housing finance System. She holds a PHD in Urban Planning at the University of São Paulo [USP], a Master in City Planning at the University of Pennsylvania, a Master in Public Administration at Bahia's Federal University [UFBA] and a BA in Architecture and Urban Planning [UFBA], with an specialization in Real Estate Finance at the Brazilian Economists Order [OEB]. She also attended Wharton's International Housing Finance Program.

Alex J. Pollock is a resident fellow at the American Enterprise Institute in Washington DC. He was President and CEO of the Federal Home Loan Bank of Chicago 1991-2004 and is a Past-President of the IUHF.

Zaigham M. Rizvi is Secretary General of the Asia Pacific Union for Housing Finance, email: zaigham2r@yahoo.com

Kecia Rust is the coordinator of FinMark Trust's Centre for Affordable Housing Finance in Africa, and manages the Secretariat of the African Union for Housing Finance. She is a housing policy specialist and is particularly interested in access to housing finance and the functioning of affordable property markets. Kecia holds a Masters of Management degree (1998), earned from the Graduate School of Public and Development Management, University of the Witwatersrand. She lives in Johannesburg, South Africa.

Ronald A. Sanchez Castro is Economist and Master of Finance at Federico Villarreal University in Peru. He is a researcher and consultant on finance, housing and urban development, and is Technical Secretary to the Inter-American Housing Union [UNIAPRAVI]. Email: rsanchez@uniapravi.org

Mark Weinrich holds graduate degrees in political science and economics from the University of Freiburg, Germany. He is the manager of the Department of International Affairs at the Association of Private German Bausparkassen. He is the Head of the Department of Economic Affairs for the International Union for Housing Finance in Brussels.

Invitation

Dear friends and colleagues,
ladies and gentlemen,

The International Union for Housing Finance celebrates its 100th anniversary on September 11-12 this year in Munich.

Founded 1914 in London, the International Union for Housing Finance has grown steadily and today has over 100 members in 45 countries all over the world. The growth in membership should be no surprise given the growing importance of housing finance and its impact on economic stability as well as prosperity.

Housing crises can drag down the global economy, as we have been painfully reminded during the last decade. Having an international platform for the exchange of ideas and experiences on housing finance is therefore today, more than ever, of great importance.

The International Union for Housing Finance has consistently offered this platform for a hundred years. One hundred years of important work by the International Union for Housing Finance should of course be celebrated. In addition to these celebrations, this event will offer attendees many opportunities to get in contact with other experts in housing finance and a stimulating programme of high-level sessions. More information can be found on the event website www.housingfinance2014.org.

We look forward to welcoming you to this jubilee event in Munich on September 11-12 2014 and we also invite you to join us for an exciting excursion into the beautiful environs of Munich on September 13.

Andreas J. Zehnder
President of the IUHF

Hartwig Hamm
Secretary General of the IUHF

PRELIMINARY PROGRAMME

Thursday, 11 September 2014

From 08:00 am
Registration of delegates

04:00 – 05:30 pm
Official opening and 1st session: Housing finance institutions and financial instruments

06:30 pm
Welcome reception for delegates and accompanying persons

07:00 pm
Dinner

Friday, 12 September 2014

09:00 – 10:30 am
2nd session: Housing finance institutions and financial instruments (continued)

11:00 am – 12:30 pm
3rd session: Regulatory developments in the field of housing finance

Lunch break

01:30 – 03:00 pm
4th session: Real estate economics

03:30 – 05:00 pm
5th session: Real estate economics (continued) and official conclusion

07:00 pm
IUHF jubilee event for delegates and accompanying persons

Housing Finance News from Africa:
Projecting the significance of housing in Africa's economies

↳ **By Kecia Rust, Secretariat, African Union for Housing Finance**

In May of this year, as Nigeria announced its rebased GDP figures, it became the largest economy in Africa, surpassing South Africa as the leader. The exercise, undertaken to bring Nigeria's economic figures up to date with its economic reality, has shed light on broader factors including the underwhelming performance of housing in Africa's economies.

Although official statistics put Africa's GDP at about US$1.5 trillion, the African Development Bank's chief economist, Mthuli Ncube, suggests that the figure is likely to be even more – an estimated US$2 trillion, or even higher. Many African countries' GDP calculations are based on very old data that does not reflect more recent economic developments that frame their current asset base and economic structure. For example, the DRC and Equatorial Guinea use base years from the 1980's although the commodities that dominate their economies were realised more recently. Nineteen countries use a base year that is more than ten years old; seven use base years that are more than twenty years old; and only ten African countries meet the international standard of using a base year that is five or less years old.[1] When Nigeria rebased its economy, it found that its GDP was double than what it had thought. Ghana saw its GDP grow by two thirds as a result of the 2010 rebasing exercise, and the Gambia and Guinea-Bissau discovered their economies were more than double what they had thought. Soon, Kenya will release its rebased GDP figures. It is expected that that economy will be significantly larger than previous GDP figures suggested.

The significance of these recalculations extends broadly. Larger economies attract investor attention and could realise greater capital inflows. At the same time, sovereign debt as a share of the economy drops, creating more space for governments to raise debt. Indeed, proportional figures all come down, and rebasing sheds important light on low levels of spending on key sectors, such as housing. Although rebasing raises GDP per capita figures, it has little impact on actual cash in hand, and the new figures may raise the economy beyond the scope of eligibility for international financial assistance. The Financial Times also suggests that rebasing sheds light on growing income inequality: "Africa may be getting richer, but so far only a minority is benefiting from the wealth". Critically, better statistics create better opportunities for better policy, and get to the heart of a key constraint in many African countries: information asymmetry.

At the World Bank and the International Finance Corporation's [IFC] 6th Global Housing Finance Conference, #housing4all[2], held this past May in Washington DC, Nigerian Finance Minister Dr Okonjo-Iweala gave an inspiring speech on the surprising insignificance of housing in the national economy.[3] Although Nigeria is Africa's largest economy, with a GDP of US$150 billion, its housing and construction sector only accounted for 3.1% of the rebased GDP. With a population of nearly 170 million people, it is estimated that the demand for new construction is about 700 000 units per year – however the construction sector was building less than 15 percent of this annually (about 100 000 units). Dr Okonjo-Iweala said that in Nigerian cities such as Lagos, Abuja, Ibadan and Kano, housing demand was growing at 20 percent per annum. Certainly, Nigeria's mortgage market is growing rapidly, more than quadrupling in size in the five years between 2006 and 2011. By 2011, the size of the mortgage market was set at US$1.42 billion. Still, this only accounted for about 0.5% of GDP.

Producing these numbers, Nigeria's housing sector is clearly not operating at its potential. Although the financial sector includes 84 primary mortgage banks and 20 commercial banks, most Nigerians still rely on private savings to pay for their homes. Mortgage loans account for less than 1 percent of commercial banks' total assets. Dr Okonjo-Iweala highlighted complex land tenure systems, incomplete property registers, bureaucratic land titling processes and slow foreclosure policies as among the barriers to a growing mortgage market – problems common to many countries – but also wondered why these were not more assertively addressed by policy-makers given the potential

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[1] FT Blog "Africa's GDP is vastly understated". 19 May 2014.

[2] For access to all the papers presented at the conference, visit
http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTFINANCIALSECTOR/0,,contentMDK:2
3575262~pagePK:210058~piPK:210062~theSitePK:282885,00.html

[3] To view a video of the full speech, visit http://live.worldbank.org/housing-for-all
The data set out in these paragraphs is drawn from Dr Okonjo-Iweala's speech. The transcript is available here: http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/6th_
Global_Housing_Finance_CME_Keynote_Speech.pdf

that an effective housing market could have on African countries. She offered three crucial roles that housing could play in African countries. First, because of its multiplier effect, the housing sector could serve as an important contributor to economic growth. In the United States, the total housing sector contribution to GDP was 18 percent – far above what African economies were able to achieve. In a separate presentation, Tanzania's Director of Housing in the Ministry of Lands, Housing, and Human Settlements Development, Professor Nnkya, supported the point, reporting that in the three years during which time the country had focused on supporting mortgage lending, the number of mortgage lenders had grown to 19, from only two in 2011.[4] Second, Dr Okonjo-Iweala highlighted the important impact that the housing sector had on job creation and economic inclusion. Third, she highlighted the intangible social benefits that come with home ownership and a well-housed society.

Nigeria has been working hard to overcome the challenges it faces and shift the housing sector towards being a significant contributor to national economic growth and socio-economic development. A Roundtable on the Housing Sector and a Retreat on Housing Finance in Nigeria, both held in 2012, identified four issues for attention: (1) the need for a conducive macroeconomic environment with stable and low inflation, low interest rates and stable exchange rates; (2) the need for a more liquid housing finance market to support better access to long term finance; (3) the need for simplified land management and transaction processes; and (4) the need for detailed attention on the supply side to realise the goal of affordable, good quality housing.

Innovation on the supply side is critical – affordability challenges across the continent mean that the majority of urban Africans cannot afford even the cheapest newly built house. When a house costing even as little as US$15 000 is too expensive for very many urban residents, an entirely new approach is required. Another presentation offered at the World Bank / IFC conference responded to this issue. Eric Olsen, Executive Vice-President of Operations at Lafarge, presented on his company's affordable housing programme.[5] In Africa, the programme is in operation in Egypt, Nigeria, Morocco and Malawi, and involves the provision of an end-to-end service that provides access to affordable housing loans and construction technical assistance to use Lafarge's cement and other building products to construct housing incrementally. A network of retailers is developed and drawn into the programme, so that consumers can access products and services easily. In Malawi, the company has developed soil-stabilised bricks that draw on the benefits of local materials, making bricks and therefore the housing process, more affordable. Lafarge has also refined the packaging of its concrete to accommodate specific demand requirements in informal settlements.

In keeping with this theme, the African Union for Housing Finance is busy organising its next conference, focusing on alternative building technology for affordable housing construction. This will be the AUHF's 30th anniversary AGM and Conference – the industry body was first registered in Kenya in 1984. Since then, it has grown to over 40 members from 17 countries across Africa. The 2014 Conference will take place in Nairobi, Kenya, from 17-19 November 2014, and will also include an exhibition. For more information, please contact Kecia Rust on Kecia@housingfinanceafrica.org.

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[4] To access Professor Nnkya's presentation, visit
http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Session6.2_TumfisuNnkya.pdf

[5] To view Eric Olsen's presentation, visit
http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Session1_Eric_Olsen.pdf

Asia-Pacific Union for Housing Finance –
News update

↳ **By Zaigham M. Rizvi, Secretary General APUHF**

Thailand

1. Proposal to limit condominium environment impact assessments

The Thai Condominium Association [TCA] has proposed to the Natural Resources and Environment Ministry that condominium projects with construction areas of less than 10,000 square meters should be exempt from environmental impact assessments [EIA].

Newly elected president Prasert Taedullayasatit said the proposal, if approved, would help reduce the number of cases of EIAs and the time taken for EIA consideration.

The TCA is drafting a checklist with clear regulations for condo projects with a total construction area of less than 10,000 square metres [sq.m.] or about eight floors and 80 units because 90 per cent of these buildings are similarly constructed.

2. GH Bank announces Government Pension Fund members housing loan project

GH Bank and the Government Pension Fund [GPF] announced their "10th GH Bank – GPF housing loan project for government officers."

Angkana Pilun-Owad Chaimana, GH Bank's president said these special government officers' loans offer interest rates of 0% for the first seven months, Minimum Retail Rate [MRR]-1.50% per annum from the 8th-24th months. For the balance of the loan term, the interest rate will be MRR-1.00% per annum.

"The Bank is determined to maintain its housing-finance market leader position with innovative loan programs, by focusing on low-and-middle income borrowers groups and continue its role as a key driver of the country's real estate sector."

Interest on loans to repay debt and purchase housing appliances will be MRR (current GH Bank MRR is 6.975% per annum). The Bank is offering maximum loans of up to 110% of appraised value of house and land.

3. GH Bank launches 2014 low-income housing loan campaign

Angkana Pilun-Owad Chaimanat, GH Bank's President announced that the Bank has allocated Bt 5,000 million for its "2014 GH Banks Housing Loan Campaign" for the general public and self-employed people with incomes of not more than Bt 15,000 ($US 500) per month. The maximum loan under this program will be Bt 1,500,000 ($US 50,000).

Interest on these loans will be 3.50% per annum for the first year and 4.25% per annum for the second year. From the third year until the end of the agreement, the interest rate will be MRR-0.75% per annum for general retail customers and MRR-1.00% per annum for welfare customers without deposits. The Bank's current MRR is 6.975% per annum.

Pakistan

The State Bank of Pakistan [SBP] (the central bank) in association with the National Housing Authority is setting up a Housing Observatory in the Country. Currently, housing information is being compiled by the central bank on the finance side only and under limited parameters.

The SBP has exempted the government housing schemes and initiatives from the exposure limit of 10% in the real estate sector. The initiative was taken in order to promote low income housing in Pakistan.

The SBP has also launched Developer Finance Guidelines, with a focus on residential developments.

The SBP has issued special prudential regulations aimed at the housing finance sector to regulate, activate and encourage this sector.

The House Building Finance Company Ltd [HBFCL] has re-launched the small builders finance scheme to facilitate the small builders/developers who are in the business of building and selling houses/flats. Although, this scheme was originally launched in 2007, it was later suspended.

Bangladesh

Sluggish business for the last two years has hindered the growth of the housing finance sector in Bangladesh. This decline in growth was not totally unexpected. The sluggish trend began in late 2010 due to various reasons like high inflation, a liquidity crisis, stoppage of the housing refinance scheme, a capital market crash, lack of utility connections and the overall economic crisis.

The Government decision to provide no utility connections to new housing units has become the major obstacle for the housing sector. Thousands of constructed units remain unsold or are kept unused. Apartment sales have plunged by 43% in the last two years.

Only the Bangladesh House Building Finance Corporation [BHBFC]

has managed to maintain steady growth. But now it cannot provide loan facilities all over Bangladesh due to a funding crisis. People are not getting loan facilities from the bank for housing and housing construction. We hope the problem will be solved as soon as possible.

India

The India Mortgage Guarantee Corporation [IMGC] is the first Mortgage Guarantee Company in India. IMGC is a joint venture that combines the developmental mandate of the National Housing Bank [NHB], the technical expertise of Genworth Financial, and the resources of the International Finance Corporation [IFC] & the Asian Development Bank [ADB]. NHB has a shareholding of 38%, Genworth 36% along with IFC and ADB 13% each. It has been registered with the Reserve Bank of India [RBI] under the Mortgage Guarantee Company (Reserve Bank) Guidelines.

It was founded with a vision to make early home ownership a real possibility through the provision of a Mortgage Guarantee. The Company provides Mortgage Guarantees against borrower defaults on housing loans financed by leading Indian mortgage lenders. This kind of risk mitigation partnership provides housing finance institutions support to make housing, not only affordable, but also easily accessible to every Indian at an earlier life stage than possible otherwise. Additionally, the product enables release of capital for the lending institution, the benefit of which over time can be passed on to the consumers. The relief has a direct impact on the leveraging capacity of the lenders, and a longer term impact on the ROE of the institutions.

IMGC also endeavors to build the mortgage guarantee offering in the market with products like Flow (offered during the loan origination process) and Seasoned Flow (offered on a seasoned portfolio of the lender). It endeavors to bring in expansion and stability to the housing finance market while enabling early home ownership and standardising market best practice across lending institutions. For more details please visit: www.imgc.com

Malaysia

The Malaysian economy is expected to benefit from rising exports following faster global growth, with domestic demand remaining supportive. Real GDP in Malaysia is expected to expand at a faster pace of 5% to 5.5% in 2014.

As at the end of2013, Malaysia's outstanding bank lending to the household sector grew by 12% to RM690.6 billion (US$ 212.5 billion) or 70.2% of GDP. The growth continued to be largely driven by lending for the purchase of residential and non-residential properties. The composition of bank lending to households remained broadly unchanged, with lending for the purchase of properties continuing to account for the bulk (56.5%) of total household loans from the banking system. The continued strong growth in lending for housing and motor vehicles reflects the demographic profile of a relatively young and growing working population with increasing affluence.

Cagamas as the only Secondary Mortgage Corporation in Malaysia remains committed to its mandate of helping the Malaysians gain access to affordable and competitive home financing. Cagamas has been instrumental in developing liquidity to primary lenders in the housing market in Malaysia. It purchases housing loans, hire purchase and leasing debts, industrial property loans and credit card receivables, through raising funds by the issuance of debt securities such as bonds and Sukuk. The provision of liquidity at a reasonable cost to the primary lenders of housing loans encourages further financing of houses at an affordable cost.

Beyond the provision of liquidity, Cagamas has also evolved to become a provider of risk and capital management solutions to other asset classes as well. This includes Cagamas' promotion of products such as the mortgage guarantee programme and its involvement in the synthetic securitisation in the Small Medium Enterprise [SME] sector. Cagamas has also become a credible partner of the Government in a home ownership initiative to address the issue of affordability among young adults wishing to own their first home (My First Home scheme).

Europe

↳ **By Mark Weinrich**

During the last few weeks, Europe has been the scene of a unique experiment. For the first time in history, two candidates directly competed for the highest government office in the European Union [EU] – the presidency of the European Commission. In the European election which took place at the end of May, about 170 million voters (out of more than 400 million eligible voters in the EU) not only voted for a party but also for that party's candidate – turning the election into a stand-off between two rivals. The biggest European parties – the Conservatives (European People's Party) and the Social Democrats (Progressive Alliance of Socialists and Democrats) – named candidates, because they feared that the Commission was becoming too powerful as an institution.

That is why Martin Schulz (Social Democrats) and Jean-Claude Juncker (Conservatives) were going head-to-head in the 28 countries of the EU, drumming up support and co-operation everywhere from Estonia to Portugal, from Ireland to Greece. The whole attempt was an experiment, not only because of the question whether an election campaign underway in so many different countries actually works, but also because a number of leaders of the EU member states resented the fact that the European Parliament wants to determine who will head the next European Commission. Nominating the candidate is actually the job of all heads of national governments of the EU member states (the European Council) according to the terms of the Lisbon Treaty, and all the European Parliament should usually do is to vote on their proposal. However, weeks of campaigning have put the national leaders under pressure to nominate either Schulz or Juncker to become the Commission's new head. As the European People's party emerged with the most seats from the election – although far from an absolute majority – Jean-Claude Juncker staked his claim as the first man in line to claim the European Commission presidency by winning

wide parliamentary backing. Despite several ditch efforts from some EU leaders, Juncker was eventually nominated by the majority of the EU heads of state or government as the new European Commission President.

Whether this experiment and power struggle might further European democracy needs to be evaluated in the future. However, the most tempting question for the housing financiers in Europe is, whether anything will change for them if Juncker heads the Commission.

The most likely and sobering answer is that nothing will change for the housing financiers. The financial regulatory reform agenda with all its complexities will be pushed further forward. In the last European plenary session before the election the parliamentarians approved several directives and regulations which belong to a package that officials have grandly dubbed a "banking union". Part of the package is also the Bank Recovery and Resolution Directive as well as the regulation for a Single Resolution Mechanism. Both demonstrate the complexity of the European regulatory challenges that the financial industry and housing financiers will continue to face, regardless of who becomes Head of the Commission. For the reader not too familiar with European law making, it might be important to know that EU-regulations are directly enforceable as law in all member states simultaneously, while directives need to be transposed into national law by the national parliaments exercising a degree of discretion.

The Bank Recovery and Resolution Directive gives the 28 states in the union a common set of rules for handling failing banks. It obliges banks and resolution authorities to draw up recovery and resolution plans on how to deal with situations which might lead to financial stress, or the failure of a bank. In order to finance the cost of bank resolution every member state will have to set up a national resolution fund for

which contributions will be raised from banks annually in order to reach a target funding level of at least 1% of the relevant covered deposits over a 10 year period. The Bank Recovery and Resolution Directive also obliges creditors like bondholders to take losses of up to 8% of a bank's total liabilities before resolution funds can be used. The directive needs to be implemented into national law by January 1st 2015.

The Single Resolution Mechanism [SRM] as a regulation will be applicable only to all Eurozone banks and countries which opt(ed) to join this scheme – it is scheduled to come into force on 1st January 2015. It establishes a European agency (Board) to ensure that the owners and creditors of major lenders in the euro zone pay first in cases of failure. This SRM Board takes over the role as the resolution authority for the Eurozone from national authorities. The SRM regulation establishes also a common Single Resolution Fund [SRF] with an (estimated) target level of 55 billion euros which represents at least 1% of covered deposits, to be built up over eight years, financed by all Euro zone banks to help cover the costs of closing banks. The SRF will replace the national resolution funds set up under the Bank Recovery and Resolution Directive in the euro area Member States as of 2016. There is a transition period of 8 years until the SRF is fully mutualised. In order to be able to transfer and mutualise the contributions available in the national resolution funds (set up under the Bank Recovery and Resolution Directive) to the SRF, 26 Member States of the EU (not including Sweden and the UK) signed an Intergovernmental Agreement at the end of May.

The whole arrangement as described above might appear comprehensible, if somewhat confusing. However, there is a real possibility that no one in the financial industry fully understands the whole package because as so often, the devil is in the details.

As a regulation, the SRM is automatically binding on Member States. However, the Bank Recovery and Resolution Directive, on which it relies, needs to be transposed into national laws; the six months remaining is a very short transposition period for many countries. The complexity of the transposition can easily be grasped by the number of pages the German draft law for the transposition of the directive has: 300. Partly because of that complexity it appears doubtful whether the conditions for the SRM to commence operation will be fulfilled by the proposed date, 1st January 2015.

The rules of the Bank Recovery and Resolution Directive and the Single Resolution Mechanism are also not fully synchronised. This starts (but does not end) with the time period until which the target funding level of 1% of covered deposits should be reached for the national resolution funds (to which the banks of EU member states without the Euro have to contribute) and the Single Resolution Fund (for banks in the Eurozone): 10 years for the national funds and 8 years for the SRF. However, contributions to the Single Resolution Fund are not only higher, but Eurozone banks will also be required to contribute to the budget of the Single Resolution Mechanism Board and secretariat. Clearly, there is a distortion of competition in favor of Member States without the Euro – giving in particular a competitive edge to London, by far the most important financial centre in the EU. This distortion is further favoured by the national flexibility allowed for countries to determine the basis of bank levy calculation and the amount to be levied is likely to result in significant differences in the levels of contributions banks incur. For cross-border and non-EU banks, the structure and locations of their Eurozone branches and subsidiaries could have a significant effect on the overall level of contributions paid.

Apart from these and many other more technical questions there are also some unanswerable "political" questions:

- Will the Single Resolution Mechanism Board be decisive in tipping banks into resolution?

- Will it have sufficient resources (e.g. people and funding) to execute resolutions quickly and effectively?

- Will Eurozone nations attempt to change or block Single Resolution Mechanism actions?

- Will the Single Resolution Mechanism Board treat e.g. Greek and French banks the same?

It should be quite clear now, that there will be many challenges to be overcome, that many details remain to be resolved. Whether the Single Resolution Mechanism will be able to facilitate the process of building trust and belief in shared approaches between the Eurozone nations remains to be seen. However, the considerable costs that the financial industry and housing financiers will have to bear in order to comply with the new rules are already very obvious.

Housing finance basics in the **post-GSE era**

↳ **By Alex J. Pollock**

In the last decade, we have been through multiple international housing bubbles, shrivels, crises, bailouts, and recoveries. In the U.S., this included first the humiliating failure and then 79.9% government-ownership of the formerly celebrated Fannie Mae and Freddie Mac, the so-called "Government-Sponsored Enterprises" or "GSEs." This seems to have brought the American mortgage market to a post-GSE era of highly uncertain design, pending ongoing and contentious Congressional debates. But with all the turmoil, and with several alleged new international housing bubbles in process, has anything basic in housing finance changed? No.

It is still the case that there are only two fundamental choices for financing mortgage loans: deposits or bonds. I believe we should want a housing finance sector with both alternatives. For bond-based financing, it appears that simpler instruments and structures have a better chance of long-term success than more complex ones. The U.S. subprime mortgage-backed securities [MBS] market, a very complex bond-based sector, certainly collapsed, as did Fannie and Freddie. Along with other credit mistakes they made, the GSEs were the largest buyers of subprime MBS.

Fannie and Freddie's own MBS, which they formerly claimed were "the envy of the world," had to be and still are in obvious fact, if not in legal technicality, entirely guaranteed by the U.S. government. To support the market in Fannie and Freddie's MBS, the Federal Reserve has heavily invested in them, financed by monetization, to an amount of well over $1 trillion – certainly an unprecedented credit allocation to housing by the world's most important central bank.

So very much has happened – but still nothing basic has changed.

Property ownership in political philosophy

Let us reflect on the United States when it was a new country and an emerging economy in the 1790s. Two intellectual giants of the American founding period were Alexander Hamilton and Thomas Jefferson. Although they disagreed on many things, they agreed on the centrality of property ownership for the new republic.

For Hamilton, secure property rights were essential for the development of the future commercial and economic power he envisioned: his vision was confirmed by subsequent history. Hamilton believed in a robust bond market. He was the architect of the U.S. national debt and thus in time the huge American fixed income securities market, of which MBS are a $6 trillion part. Hamilton was also the father of the first American GSE: the Bank of the United States, established in 1791.

The American founding fathers generally agreed on property ownership as a goal. While Jefferson famously wrote into the *Declaration of Independence*, "Life, Liberty and the Pursuit of Happiness," the others more typically wrote of "Life, Liberty and Property," or of "the means of acquiring, possessing and protecting property."

Although Jefferson left out "Property" in the *Declaration*, he firmly believed in widespread property ownership as essential to the republican form of government and to the virtue required of the citizens of a republic. He was envisioning land-owning farmers in a predominantly agrarian society, but the link between property and the republic is fundamental.

Now the relevant form of property for most people in our urbanized societies is home ownership. To have home ownership at a relatively young age, say as couples are having children, requires an effective housing finance system.

It is frequently pointed out that housing finance will be more widely available and more efficient if there are clear and enforceable procedures for foreclosure of mortgaged property. This is usually described as a necessary right of the mortgage lender. But it is more importantly a right of the property owner: the right of the owner to hypothecate property and thereby obtain credit.

So, political philosophy has taken us to mortgages.

Moving risks around

The most basic goal for every housing finance system is enabling long-term property ownership. The most basic question is how the inherent risks of doing this are distributed among the various parties and how they are moved around. Once a house has been financed by debt, the risks are always there—they do not go away. But who is bearing which risks? And who is most competent to bear each of the various risks?

In this context, a highly misleading term in MBS discussions is "off-balance sheet" finance. Clearly there is no such thing: if there is a financial asset, it is on somebody's balance sheet. If it went off yours, it went on to someone else's. The only question is: whose? And from a systemic point of view, which balance sheets are best suited to which assets and which risks?

Similarly, discussions of MBS often speak of "freeing up capital." But if you have securitized your loans to free up your capital, they have

simply moved to tie up someone else's capital. Whose? Or did you succeed in "freeing up capital" (like sellers of mortgages to the American GSEs did) by moving the risks to the government and trading on the taxpayers' capital?

Consider the unfortunate but instructive history of the U.S. savings and loan industry. In the 1930s, careful study led to the design of the mortgage loan with the least credit risk. This, it was decided, was the long-term, fixed rate, fully amortizing mortgage. It was funded on saving and loan balance sheets with variable rate deposits.

The designers of this kind of mortgage loan were correct that it was in general a high credit quality instrument, but subsequent events showed they had traded lower credit risk for much greater interest rate risk, so the inflationary interest rate run-up of the 1970s and 1980s caused this risk structure to collapse. The U.S. government's savings and loan deposit insurance fund itself became massively insolvent and passed on its losses to the taxpayers.

Thus ended the U.S. savings and loan era and began the GSE era. The 1980s and 1990s were the great days of Fannie and Freddie. They were extremely profitable, dominant in the market, politically powerful, proud and arrogant. Especially Fannie's political "clout" was greatly feared by market participants and politicians alike. Fannie and Freddie grew enormous, and still are, with over $5 trillion in combined assets (there are about $9 trillion of American mortgage loans by value).

In the GSEs' MBS operations, they passed interest rate risk on to the bond market investors, but they kept the credit risk for their own account. They let the originators of the loans divest the credit risk to them, and then intensively concentrated the credit risk of American mortgages on their own hyper-leveraged, government-sponsored balance sheets. This in time led to deep insolvency and passing on massive losses to the taxpayers.

The savings and loans sought to solve credit risk, and went broke on interest rate risk. The GSEs were thought to solve interest rate risk, and went broke on credit risk.

It is almost six years after the financial collapse of Fannie and Freddie. The U.S. is still struggling to enter the post-GSE era, whose nature remains misty, uncertain, and the source of endless debates. However it may turn out, it will not escape the inescapable need for risks to be somewhere and to answer the question: which balance sheets are best for which risks?

Laws of housing finance

What makes all financial markets endlessly fascinating is their recursiveness. They are full of complex feedback loops, of current expectations already priced in, of constant adjustment to changing expectations and new information, of interactive strategies of competing human minds, of changing perceptions of risk--from sanguine optimism to fear and panic and back to optimism. Financial markets turn government subsidies into increased prices of the subsidized assets, government risk support into increased risk taking, good intentions into what no one ever intended or even imagined, and what were considered impossibilities into reality.

To conclude this consideration of basics, I propose five laws of housing finance:

I. No matter what any government or regulator does, in optimistic times housing finance markets will create however much risk they want.

II. Mortgage risk tends to migrate to the hands least competent to manage it. (Stanton's Law)

III. Mortgage risk models work until they don't. (Moore's Law of Models)

IV. In any complex, recursive situation, no matter how smart you are, you will get surprised.

And finally, Pollock's Law of Finance:
V. Loans which cannot be paid will not be paid.

All five laws have one implication in common: Always provide a significant margin for error. However the post-GSE era may turn out, this conclusion will remain fundamental.

Housing finance in **Latin America**

↳ **By Ronald A. Sanchez Castro**

In Argentina, the administration of the Provincial Housing Institute of Buenos Aires will provide land for housing construction to beneficiaries of the Argentine Credit Program [PRO.CRE.AR.] to a value of around 35 thousand pesos. This is thanks to the agreement signed in November 2013 between the government of the province and the Executive Committee of PRO.CRE.AR. On the other hand, according to INDEC, the stock of mortgages loans increased by 1,410 million (3.2%) in February 2014 compared to the same month last year.

In Bolivia, according to reports of the Supervisory Authority of the Financial System [ASFI] during the first quarter of 2014, 6,345 loan for social housing for an amount of 220.85 million dollars were granted within the financial system (This includes banks, financial funds, mutuals and cooperatives).

In Brazil, the Monetary Policy Committee of the Central Bank, decided to raise the reference rate [Selic] by 0.25% to 11% annually. This new cycle of rising of interest rates is used to curb inflation, and began in April 2013. The Brazilian Association of Real Estate Credit Institutions and Savings [Abecip] presented its balance which shows that the volume of loans for the acquisition and construction of buildings with savings deposits amounted to R$ 8.8 billion in February 2014, thus establishing the best result in the last 20 years. Also the value of individual loans under the Brazilian System of Loan and Saving [SBPE], reached to R$ 113.7 billion, that is an increase of 35% from 12 months ago. Meanwhile, the Federal Economic Bank, has 68% of the mortgage market of the country, and hopes that by the end of 2014, to originate over R$ 150 billion in loans, an increase of 15% compared to last year. On the other hand, the houses prices in Brazil continue to rise. Prices increased at a rate above 3% in Rio de Janeiro and by 2% in San Pablo in the first quarter of 2014.

In Chile, according to the Chilean Chamber of Construction [CCHC] between January and March 2014 the sale of new homes in Santiago grew 6.6% over the first quarter of 2013. This increase was influenced by the sale of apartments (flats), which grew 17.8%, while the sale of houses fell 16%. Furthermore it is estimated that the reduction of the IVA tax benefit would impact on the construction of more middle class homes in the price-range 4,000 to 2,000 UF, by increasing the cost by up to 13%.

In Colombia, according to the Colombian Chamber of Construction [Camacol], this year the construction of the 100,000 homes that the Government is giving away free to poor families in the country will be completed. Moreover, the National Association of Family Compensation [Asocajas] has indicated that during 2014, 86,000 Colombians will have access to their own homes thanks to a family subsidy which has been provided by the Government. Meanwhile, the Association of Banking and Financial Institutions of Colombia [Asobancaria] is upholding the agreement with the federal government to keep interest rates between 7% and 8%, for mortgage loans for houses in the price range from 80 to 200 million pesos. On the other hand the National Administrative Department of Statistics [Dane], revealed that in February 2014, the area licensed for construction increased 1.8% in the country, compared to the same month last year.

In Ecuador, the Bank of the Ecuadorian Institute of Social Security [BIESS] has placed more than 6,700 million dollars in mortgages, unsecured loans and credit pledges directly with members and retirees since BIESS was created. Likewise, this institution was approved under new credit regulations that allow a 30-year loan term with an interest rate of 6%, with monthly payments of $ 104 for the acquisition of a house up to $ 21,000.

In Honduras, the Central Bank of Honduras [BCH], confirmed that this year the government will reactivate the line of credit of 4,000 million Lempiras which will be designed to support the housing program. On the other hand, high interest rates between 10% and 21% are restricting funding for housing construction in the country.

In Mexico, according to the Real Estate report of BBVA Bancomer, during the first two months of the year the number of mortgages fell 13.3% over the same period last year, while the amount of the loans decreased 9.7% for the same period, all as a result of the contraction of credit extended by the Institute of the National Housing Fund for Workers [Infonavit]. The National Chamber of Industry and Housing Development [Canadevi] expected to place 10,000 households in the city based on the National Housing Program this year and also reported that the institution has planned to build 17,538 houses, which would represent an investment of more than 5,200 million pesos for 2014. Moreover, the Ministry of Agricultural, Regional and Urban Development [Sedatu] reported that during the first two months of 2014, credit granted by the Institute of the Infonavit and the Housing Fund of the Institute for Social Security and Services for State Workers [Fovissste], grew 14% and that subsidies grew 24.8% compared to the same period last year.

Regional round up: news from around the globe

In Nicaragua, according to the Chamber of Builders [Cadur], the housing shortage continues to grow. Currently the shortage is around 957,000 homes, and each year demand is growing at 20,000 units, of which the private sector and the public only cover 50%.

In Peru, as Reported by the Central Reserve Bank [BCR], last January, overall credit grew 13.7% compared to the previous twelve months, mainly through loans in local currency (Peruvian nuevo sol). Furthermore the Association of Banks [Asbanc] noted that the dollarization of the mortgage portfolio stood at 38.81% in late January; a historic low. Also the Association noted that mortgage loans in dollars reached to U.S. $ 3.984 million in January 2014, lower by U.S. $ 254 million (5.98%) compared to January 2013. Moreover they noted that at the end of the third month of 2014, the mortgage portfolio continued to register strong growth in domestic currency and reached 18.558 million Peruvian nuevo sol. The Mivivienda Fund estimated that the housing supply in 2014, nationwide, will grow at an average of 8% to 10%, and predicted that about 68 thousand new homes will be generated. Finally, the Association of Real Estate Companies [ASEI] estimated that this year in the country 50,000 homes would be sold for a total of S/15,000 millions.

In Panama, according to Convivienda, housing construction grew by 8% in 2013, and unmet demand suggests that by the end of 2014 there will be a growth of 18%. Although each year between 12,000 and 15,000 new homes are built, this is not sufficient to meet the growing demand, especially in the residential segment whose house values range from $ 40 thousand to $ 120 thousand.

In Venezuela, according to the statistics of the Ministry of Housing, Petroleos de Venezuela SA [PDVSA] and the executive agencies for housing, at the end of February 2014, the central state government completed the construction of 3,354 homes, 70% lower than the same period in 2013 when 11,200 were completed.

Brazil's house price surge

↳ **By Claudia Magalhães Eloy & Rafael Fagundes Cagnin**[1]

1. Introduction

In recent years, the evolution of the Brazilian housing market has been the subject of an ongoing debate, both locally[2] and internationally[3]. Influenced by the recent example of the U.S. subprime mortgage market crisis and in the light of evidence of a housing price surge, lately the analyses have been especially devoted to the identification of a possible "bubble" in the Brazilian real estate market. Such analyses are generally based on the belief that bubbles are formed from the detachment of the market price of these assets relative to their "fundamental price".

The adoption of conventions – a rule of how expectations are formed in the presence of uncertainty[4] that is shared by a large number of individuals in a given society –, the existence of information asymmetries – particularly important in the Brazilian real estate market – and mimetic behavior theoretically[5] place a question mark over the importance of a fundamental price in the decision-making process of economic agents.

Bubbles can then be alternatively "defined loosely as a sharp rise in the price of an asset or a range of assets in a continuous process, with the initial rise generating expectations of further rises and attracting new buyers – generally speculators interested in profits from trading in the asset rather than in its use or earning capacity. The rise is usually followed by a reversal in expectations and a sharp decline in price of the asset, resulting in a financial crisis" (KINDLEBERGER, 1992: p 199.). From this perspective, it is important to identify the roots of the persistent rise in prices over a certain time period, and the odds of it being followed by a steep fall in prices due to the reversal of expectations, rather than focus on the "fundamental price" (OREIRO, 2001).

The discussion over the existence of a bubble is particularly relevant for the agents directly involved in this market, as it influences expectations about future price developments, with implications for their decision making processes in the present[6]. However, in macroeconomic terms the crucial feature is the complexity of debt and credit relations that may threaten financial stability and the pace of economic growth, with important social consequences (as with the recent experience of the United States), in the face of changes in real estate prices, interest rates or borrowers' income trends.

Thus, this paper focuses on the significant growth of housing finance operations in recent years. Changes to the regulatory framework, particularly in relation to judicial foreclosure and requirements under the Brazilian savings and loans system are at the core of the housing credit increase, experienced since 2005. Rising real incomes that expanded the size of the middle class, very low unemployment rates and falling interest rates drove up the demand for mortgages. After 2008, construction sector activity gained great support as part of the countercyclical policy of the federal government.

Housing subsidies were enlarged under the new Minha Casa Minha Vida Program [PMCMV – My House, My Life] and public banks aggressively expanded their portfolios of housing finance, promoting cuts in spreads and increasing loan-to-value ratios [LTVs] and loan terms, followed, to some extent, by their private counterparts.

Expanding demand in a market where supply is inelastic, as in the case of the real estate market, has resulted in higher prices. This trend is even stronger in the absence of urban and regional policy instruments that could, to some extent, deter the speculative process over land in urbanized areas.

This article comprises three sections, apart from this brief introduction and the closing remarks. In the following section, the regulatory changes that revived housing finance in the country, particularly after 2005, are presented. The next section discusses the housing strategy as part of the countercyclical policy, from 2009 on, based on the use of public banks and the launch of a 3 million house program, Minha Casa Minha Vida. The subsequent section describes the evolution of housing prices in Brazil in the last decade.

2. The re-vamp of housing finance in Brazil (2005-2008)

Following the collapse of the National Housing Bank [BNH], in 1986, the Housing Finance System [SFH] only showed renewed high growth rates from 2005 on. Between December 2004

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[2] Sachsida e Mendonça (2012), Lima Jr. (2013 e 2014), Eid Jr. (2014), Simão (2014).

[3] IMF (2011, 2012 e 2013), Cubeddu et al. (2012), Schmidt e Castellani (2013), Pearson (2014).

[4] Convention is thus a defense strategy to deal with uncertainty in the Keynes-Knight sense, according to which uncertainty is not the same as risk.

[5] The theoretical discussion on asset bubbles is beyond the scope of this article. References include, among others, Blanchard and Watson (1982) and Blanchard and Fischer (1989), for a deliberation on the rational expectations hypothesis, which is usually implicit in most empirical works about bubbles. Divergent views can be found in Krugman (1998), for an analysis of the role of asymmetric information, and Kindleberger (2000), Dymski (1998) and Keynes (1936), for emphasis on the role conventions and mimetism.

[6] As the debate on the existence of a bubble strengthens, a reversal in the trend of rising prices in the near future is foreseen. Homeowners who withhold sale, waiting for prices to reach "the top", then decide to put their properties for sale. Families and investors who longed to acquire a property decide to postpone their buying decision, waiting for the price to drop. These decisions tend to reduce market liquidity and bring prices down. As the bubble discussion intensifies, it thus promotes a change in market conventions, making a price reversal more likely to happen.

and December 2008, the stock of housing finance in the country (February, 2014 prices) jumped from BRL 41.5 billion to BRL 84.5 billion, taking its ratio to GDP from 1.3% to 2.1% (Figure 1). This movement was accompanied by progressive lengthening of mortgage terms and higher LTV ratios, as well as the fall of interest rates – yet, interest rates have been volatile, affecting mostly contracts outside the SFH, where rates are freely negotiated between parties, in accordance with monetary policy guidelines and both national and international financial environments.

It should be emphasized that housing finance in Brazil still relies, almost exclusively, on earmarked credit circuits[7] based on savings that comprise the national Housing Finance System [SFH][8]. Its funding comes from compulsory deposits generated by formal workers in the provident fund (Fundo de Garantia por Tempo de Serviço, FGTS[9]) and voluntary deposits in savings accounts (Brazilian Savings and Loans System, SBPE[10]), a very popular investment option. Over the last decade, banks participating in the SBPE system significantly increased their portfolio of housing loans, despite the gradual and silent process of relaxing the earmarking rules over SBPE's funds that took place, allowing non-residential real estate transactions and mortgages outside SFH's rules – at market rates – to compete for the funds, while savers remained stuck with returns at below market rates[11]. The gradual extinction of FCVS[12] credit deductions and tighter supervision of the BCB regarding compliance to the earmarking rules were among the reasons that contributed, at first, to credit expansion. Yet, in spite of all the credit growth, at the end of 2012, housing loans under SFH rules accounted for only nearly 42% of SBPE savings stock, revealing that there is room for more growth.

Figure 1   The evolution of housing finance in Brazil – Jan 2004 to Feb 2014
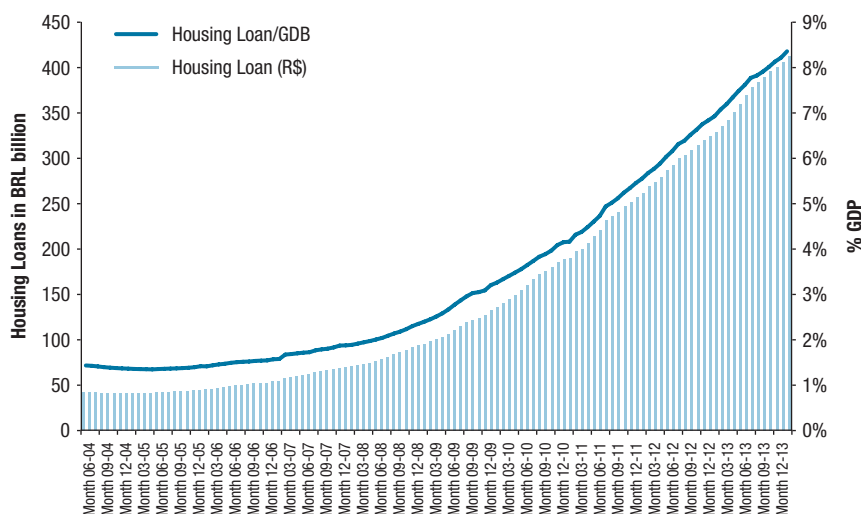
Source of data: Time Series, Brazil's Central Bank (BCB).

Note: Housing finance balances were entered in prices of February 2014, discounted by the National Consumer Price Index (IPCA).

Considering the entire portfolio of housing loans granted by SBPE, the majority, 91%, has been made within SFH[13], with regulated sub-market interest rates, with only the remaining 9% at market rates. While interest rates cannot exceed 12% per year under SFH, they have been as low as 8.5% per year at SBPE and at 5.2% per year at FGTS (plus the Reference Rate [TR][14]).

The evolution of housing finance in Brazil is precisely related to the earmarking rules and changes in the regulatory framework, mainly the introduction of trust deeds[15] that quickly substituted for conventional mortgages in order to speed up and lower the cost of foreclosures. Together, the regulatory changes have

boosted the supply of finance, while demand was expanded by the favorable macroeconomic environment: growth of formal employment and household income and the reduction of interest rates.

Furthermore, from 2004 on, punishment for non-compliance with SBPE loan to funding ratio requirements was tightened, establishing that savings funds that did not originate credit, according to earmarking regulations, be deposited at the Central Bank of Brazil [BCB] with interest reduced to 0.8 of the TR (plus the 6% fixed rate), thus imposing an additional cost on financial agents, given their obligation to remunerate savings balances by the full TR.

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[7] Special credit circuits where a mandatory percentage of the funding must generate housing loans and a penalty is imposed in case of noncompliance by participating financing agents (refer to footnote #10). In the case of SFH, interest rates and other credit conditions (LTV for example) are also regulated and regulation sometimes differs from SBPE and FGTS.

[8] Analyses on the Brazilian Housing Finance System can be found at Martins et al. (2008) and Magalhães Eloy (2013).

[9] FGTS is a provident fund that collects monthly compulsory savings (equivalent to 8% of monthly salary, paid by employers) from most formal workers (those under the CLT Regime). Self-employed, public servants and informal workers are exempted. Nonetheless financing from its funds may be accessed by any family that qualifies, regardless of being an account holder/saver under the system. Housing loan budgets are annually defined by its Council Board [CCFGTS].

[10] Under current rules established by the National Monetary Council (Resolution no. 3.932/2010), 65% of SBPE total savings balance should be directed to real estate financing, of which 80% (52% of total) should be destined for housing finance operations under SFH criteria while the remaining 20% (13% of total) can be used in real estate transactions at market rates, half of it (6.5% of total) for housing mortgages. The remainder of the balance should be allocated as follows: 20% sent to the Central Bank and 15% freely used by banks.

[11] This process has been generally justified as a compensation for the gradual extinction of FCVS' deductions.

[12] FCVS (Fundo de Compensação das Variações Salariais) – created in 1967 with the purpose of covering residual remaining balances of housing finance operations under SFH – ended up with debt obligations to financing agents of over BRL 100 billion, as installments and balances were subject to different interest rates in a very high inflation context. For many years, banks could register remaining (and even solved) FCVS obligations as housing credit to comply with SFH loan to stock requirements. To better understand this process, please refer to Magalhães Eloy,2013 or Cintra, 2007.

[13] The SFH regulations require a maximum appraisal value of the property to be financed of BRL 750,000 for Rio de Janeiro, São Paulo and Brasilia metropolitan areas and BRL 650,000 to all other regions; a maximum interest rate (including other fees) of 12% per year and a maximum LTV of 80%, expandable to 90% when the Constant Amortization System is used.

[14] The Reference Rate is used as an index rate for the SFH, but it is not a price index. It is set by a formula based on average interest rates of 30 day Bank Deposit Certificates (CDBs).

[15] Up to early 2000, the conventional mortgage was the prevalent legal device in Brazil, where fore closing a mortgaged property would take up to 7 or 8 years. Slow judicial procedures and a "recourse system" that tends to favor the party that wishes to postpone the process were the main reasons for such a long-lasting process. Constituted by "fiduciary property" – whereby the borrower takes direct possession of the unit, while the lender receives property title in a resolute condition: once the contracted obligation has been fulfilled, the property is transferred to the borrower – the trust deed system allows for a much simpler and speedier foreclosure procedure (generally around 10 months), conducted by a public notary. See Martins et al., 2008.

In 2007, with the adoption of Basel II, the reduction of capital requirements on housing loans based on the LTV[16] provided an additional incentive for lending, as it lowered the capital cost of this type of credit.

Meanwhile, the gradual improvement in the labor market increased the borrowing capacity of households, matching supply incentives to an expanded demand. Between 2004 and 2008, the average annual labor income in Brazil grew by 12.6% in real terms, while the average annual unemployment rate was reduced from 11.5% to 7.9% and the share of formal jobs over total workers went from 39.2% to 44% (BALTAR et al., 2010). The increase in formal employment, accompanied by rising income was crucial to the expansion of housing finance as it qualified a greater number of individuals/families to commit to longer-term debt.

Moreover, since the second half of 2003 the Selic[17] (Brazilian monetary policy rate) had been declining and after a brief period in the first quarter of 2005 when rates went up, it resumed the downward trend. While between February and June, 2003, Selic reached 26.5% per year, in July, 2005 it was down to 19.75% per year, and in February, 2008, it was as low as 11.25% per year.

The reduction of domestic interest rates was very important for two reasons. Firstly, most of the Brazilian public debt stock is indexed to the Selic rate. Since inflation was stabilized and managed under a target system, during the second half of the 90s, and given the volatility of the exchange rate as well as the GDP rate that followed, profit making in the Brazilian banking system was largely based on treasury gains obtained on interest paid by government debt and also on speculative strategies in derivative and exchange markets (CARVALHO, 2007; GONÇALVES et al., 2007; FREITAS, 2007). After 2005, the downward trend of Selic represented a revenue loss for banks that had to be compensated for by other activities such as the expansion of credit portfolios[18] in general, including housing finance, favored by the regulatory changes and the demand expansion described above.

Secondly, the TR – the "indexation" of savings and credit under SFH – is influenced by Selic and was also reduced. Thus, in the end, the decline of Selic contributed to the reduction of interest rates in credit operations both inside and outside SFH.[19]

Together, macroeconomic and regulatory factors created a very favorable environment for the expansion of housing credit, thus fostering bank competition that resulted in the development of new distribution channels, longer mortgage terms and higher LTVs, that went from an average of 47.9% in 2005, up to 63% in SBPE-SFH during the first half of 2011[20]. Also there were improvements in risk assessment models applied to this credit segment (FREITAS, 2007; MARTINS et al, 2008).

3. The countercyclical economic policy and the acceleration of housing finance (2009-2014)

The Brazilian housing finance expansion trend was not interrupted by the deepening of the international financial crisis, at the end of 2008,

with the bankruptcy of Lehman Brothers. While other types of credit, especially business loans, suffered contraction throughout 2009, resulting in a strong deceleration of total credit in the national economy, the growth of housing finance gradually accelerated after mid-2008 (CAGNIN, 2012; FREITAS & CAGNIN, 2014).

As the crisis spread abroad, the countercyclical policies related to the housing sector adopted by the federal government appeared as an important element, stimulating the economy through, among others, a sector that was already on an expansion path. On one hand, given the risk aversion increase of private banks, which led to sharp falls of credit supply, the federal government determined that state-owned banks would act counter cyclically, in order to compensate for the behavior of their private counterparts. CAIXA, the country's "housing bank", 100% owned by the federal government, was made the major agent of this policy in the retail segment of the banking market. Its focus on housing – since it took over the National Housing Bank's role in 1986 – with a major market share (around 70%) of housing finance enabled it to further expand its

Figure 2   Evolution of housing finance by financing agent type
Mar 2008 to Feb 2014 – variation in real terms over 12 months
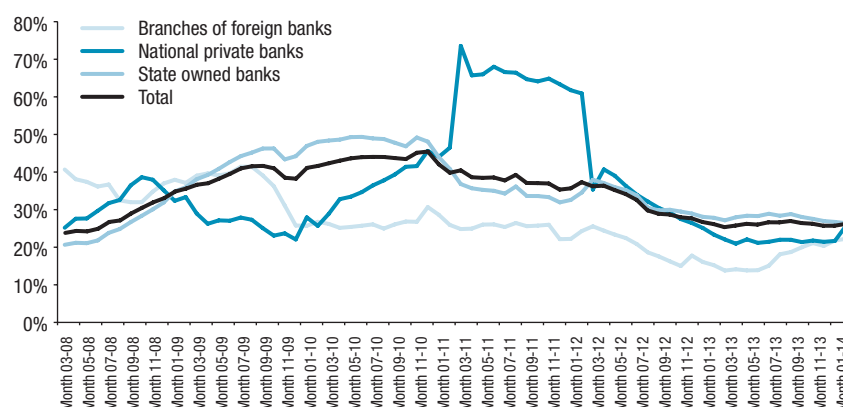
Source of data: Times Series, BCB.

Note: The total share of housing finance balances amongst public banks was 71.1% in March 2008 and 75.1% in February 2014.

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[16] Circular #3360/2007 altered the weighting of risk factors: reference assets must be greater or equal to the product of the rate of 0.11 (Basel) and the sum of risk exposures multiplied by weighting factors. Housing finance when secured by mortgage or trust deeds has a RWA (Risk Weighted Asset) factor reduced from 50% to 35% when LTV is less than 50%; to 50% when LTV is between 50% and 80%; and to 100% when LTV exceeds 80%. More recently, Circular #3644 of 2013, unified the RWA factor at 35% for LTVs up to 80%, while maintaining the factor at 100% when LTV exceeds 80%.

[17] Reference rate of the Sistema Especial de Liquidação e Custódia [Selic].

[18] As Cintra (2006) and Freitas (2007) describe, the expansion of credit portfolios started in 2003 mainly in relation to individual short term debt operations, where the profit margins

of banks are very much higher. Its origin lies in the introduction of financial innovations by the federal government, such as payroll loans; increased competition; and, a favorable international liquidity phase.

[19] Provisional Measure #567, May, 2012, established that whenever Selic was equal or less than 8.5% per year, SBPE savings deposits received yields equivalent to 70% of Selic, instead of the usual fixed 6% (in any case, always added by the TR). If Selic is over 8.5%, deposits earn 6% +TR per year (TR + 0,5% monthly).

[20] Data from Associação Brasileira das Entidades de Crédito Imobiliário e Poupança [Abecip], available at www.abecip.org.br.

housing credit portfolio. According to the BCB, the stock of savings deposits has grown more significantly in state-owned banks, keeping the liquidity index of state owned financial institutions superior to privately controlled ones, thus indicating that the former have been enabled to expand their credit portfolios without compromising their liquidity level.

Thus the country managed to keep the trends of falling unemployment rates (from 7.9% to 5.3% between 2008 and 2013), increasing formalization of the labor market (44% to 50.3% of employment in the private sector, during the same period) and rising household income (the average income was up 24.9%, in real terms, between 2008 and 2013). Also, from the beginning of 2010, private banks responded to the more aggressive approach of state-owned banks (Figure 2) and their reaction favored the types of credit associated with lower risks, such as payroll loans, and those with collateral – motor vehicle and housing finance loans. Nevertheless, according to the BCB, in 2012, while the total loan portfolio expanded 27.8% among state-owned banks, the national private portfolio grew only by 6.7% and the foreign private portfolio by 9.4%.

Stronger competition and lower basic interest rates (Selic), between late 2008 and early 2010, contributed to the lengthening of mortgage terms (from 13.2 to 14.7 years in that period)[21] and higher LTVs and to lower spreads on housing loans. This movement was also led by state-owned banks – especially CAIXA – in accordance with its controller (the federal government) guidelines. The main idea was to make the fall of the basic interest rate (Selic) reach borrowers of different types of credit,

through the reduction of bank spreads (typically high in Brazil). State-owned banks allied those guidelines to their corporate strategies toward diversifying operations and expanding market share. As already mentioned, private banks followed[22]. The average LTV within SFH reached, in December 2013, 70.1% for loans contracted in that year, 66.3% when considering the entire mortgage loan stock and 54.8% when updating collateral appraisal values[23].

Moreover, in April 2009 the federal government launched a 1 million housing program, named Minha Casa Minha Vida [PMCMV], which soon afterwards expanded to a 3 million housing program. This program, conceived under the countercyclical policy umbrella, inaugurated a significant subsidy policy scheme to foster housing acquisition, while boosting FGTS housing loan budgets and offering tax deductions to home construction activity and materials. The expansion of housing finance by CAIXA is explained by its near monopoly over FGTS (recently broken by Banco do Brasil, also a state-owned bank) and its central role in operating PMCMV. From 2009 to 2012, housing supply and demand were boosted by the following subsidy amounts[24]:

BRL 36.6 billion, from federal budget resources, used to contract builders to build housing for very low-income families selected by municipalities. This scheme does not entail financing;

BRL 9.2 billion, from a mix of FGTS money (surplus operating revenue) and federal budget resources, to provide direct and indirect subsidies to housing finance with FGTS funding, in order to expand demand amongst low and moderate income families.

Subsidies are thus mostly addressed to fund production, by a modality that does not involve financed acquisition by families. Nevertheless, this boost in production volumes has helped push costs up. Units subsidized under PMCMV have price limits set by government regulation, which is in turn subject to developer's lobby and pressure (in that entrepreneurs have been producing by prices at the set limits).

Yet, it is important to emphasize that financing within SFH already included subsidization through a sub-market rate earmarked credit circuit. Therefore PMCMV added new subsidies[25], on top of existing ones.

With this mix of incentives, the stock of housing finance in Brazil went from BRL 91.9 billion (2.3% of GDP) to BRL 395.1 (8.2% of GDP) between December, 2008 and December 2013 (Figure 1, in prices of Feb, 2014)[26].

Since the beginning of PMCMV, however, the federal government, under pressure from builders and banks, has expanded subsidies and readjusted price limits above inflation. As analyzed by Cagnin and Magalhães Eloy (2012), the increases in production price limits granted up to 2012 in Track 1 (very low income families) of the program exceeded 50% in all state capitals and in some cases exceeded 60%. In the same period (April 2009 to July 2012), the accumulated INCC[27] reached 27.7% and IPCA[28], 19.4%. Even discounting constructive improvements required when resetting limits, price limit real increases, in some states, were up to 28%.

The price limit of the housing unit subject to finance under SBPE/SFH that had been maintained, in real values, since 1996, around

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[21] Average calculated for the entire system, including operations outside the SFH, at market rate.

[22] Improvements in credit portability, established in 2006 (Resolution CMN. 3.401), were decisive in this process. Those included simplifying portability procedures and notary costs reductions (Provisional Measure #567, 2012, converted into Law #12,703).

[23] The National Monetary Council Resolution #4271 of 2013, set the LTV limit at 80% within SFH, expandable to a maximum of 90% solely under a constant amortization system [SAC]. BCB, 2014.

[24] Data, in 2012 prices, come from CAIXA. PMCMV encompasses different modalities. The first bracket is targeted to families with monthly incomes up to BRL 1,600 and is based on federal budget resources, almost entirely subsidized (families pay back 5% of their gross income for 10 years, regardless of the price of the unit received). The second bracket involves financing from FGTS funding, coupled with subsidies from FGTS (82.5%) and federal budget resources (17.5%), and is targeted at families with monthly incomes up to BRL 5,000, divided in 2 layers: families with monthly incomes up to BRL 3,275 that receive most of the subsidies destined to this modality (15% of total subsidies); and families with incomes from BRL 3,275 to BRL 5,000. FGTS has been giving out direct subsidies since 2005, with resources generated from surplus operating revenue that come from the spread between the yield paid to shareholders and investments in the capital market. PMCMV enlarged FGTS subsidy budgets and topped them up with federal budget money.

[25] Local governments – states and municipalities – also contributed with extra subsidies that totaled BRL 543 million up to 2012, as a counterpart to the federal program, mainly in the form of land or infrastructure investments. Although local subsidies represent a much

smaller investment, they helped make developments viable, especially in metropolitan areas where land is more expensive. São Paulo, for example, since 2012, has grants (from state tax revenues) to PMCMV participating families of BRL 20,000 per family and up to BRL 34,500 per family exclusively for state public servants, targeted to municipalities where production under PMCMV had not been feasible due to set price limits, particularly the case of the state capital. Last year, the city of São Paulo announced the addition of another BRL 20,000 in subsidies per family to promote supply in the city.

[26] The method used by BCB to report credit statistics was revised in February, 2013. At that time, all credit operations higher than BRL 1,000 were taken into account through the Credit Information System [SCR]. Until then, only operations over BRL 5,000 were reported . Data on mortgage terms, interest rates and spreads also ceased to be obtained only by sampling and were expanded to encompass all contracts of participating financial institutions. This new method has been applied to data released from March 2007 in the case of credit volumes, and from March 2011, in the case of interest rates and maturity. Thus, there may be differences between the amounts presented in section 1 of this article, based on statistics produced under the old method, and values shown in this second section.

[27] Construction Cost National Index, provided by Fundação Getúlio Vargas [FGV], measures the cost evolution of housing construction though continuous statistics, monthly, covering 18 municipalities in the country. The INCC-M is calculated based on prices – material, equipment, services and labor – collected between the 21st day of the previous month and the 20th day of the reference month.

[28] National Consumer Price Index, by the Brazilian Institute of Geography and Statistics [IBGE]. IPCA is the official index that reports inflation under the inflation target system.

BRL 500,000[29], was raised, in 2013, to BRL 750,000 in the capitals of the states of São Paulo, Rio de Janeiro, Minas Gerais and Distrito Federal and to BRL 650,000 in all other Brazilian cities, which applied to both used and new units.

By raising the price limits allowed to qualify for financing under SFH and providing extra subsidy under PMCMV, the government allowed entrepreneurs to continue to expand the supply of new homes, accommodating profit margins required by builders and rises in construction costs and urban land prices. However, the new limits also validated the price increases of previous years, reinforcing high price expectations by market agents.

Despite negative forecasts by market analysts and banks, the strong expansion of housing finance was not restrained by the rhythm of SFH – SBPE and FGTS – funding growth. The deceleration of credit stock after 2011 (for reasons that will be addressed subsequently), the continued growth in access to banking services [bankarization][30] and the higher attractiveness of "poupança" [SBPE savings accounts], due to a scenario of lower levels of interest rates (there have been some short periods of raising rates meanwhile) have prevented a shortage of funding. Even after rules for remunerating SBPE savings deposits were changed, reducing rates as Selic goes down[31], in May, 2012, SBPE net uptake was positive at BRL 49.7 billion in that year (of which BRL 34.2 billion in the second semester, right after the change) and BRL 71 billion in 2013. In December 2013, SBPE savings stock was up to BRL 466.8 billion, while FGTS totaled BRL 325.9 billion in deposits in December 2012[32]. Since it is an earmarked credit circuit, the strong growth of funding has both allowed and demanded the expansion of housing finance portfolios.

Despite the rapid expansion of housing finance, default indicators have not deteriorated and remained as one of the lowest in the total credit market. Those indicators have avoided the incidence on housing finance of restrictive macro-prudential measures adopted by the BCB, around the end of 2010. Then, the BCB identified the potential risk of financial instability associated with the indebtedness of households and the imbalance between the volume

Figure 3   Evolution of bank service debt commitment – Jan 2009 to Dec 2013

Source of data: BCB.
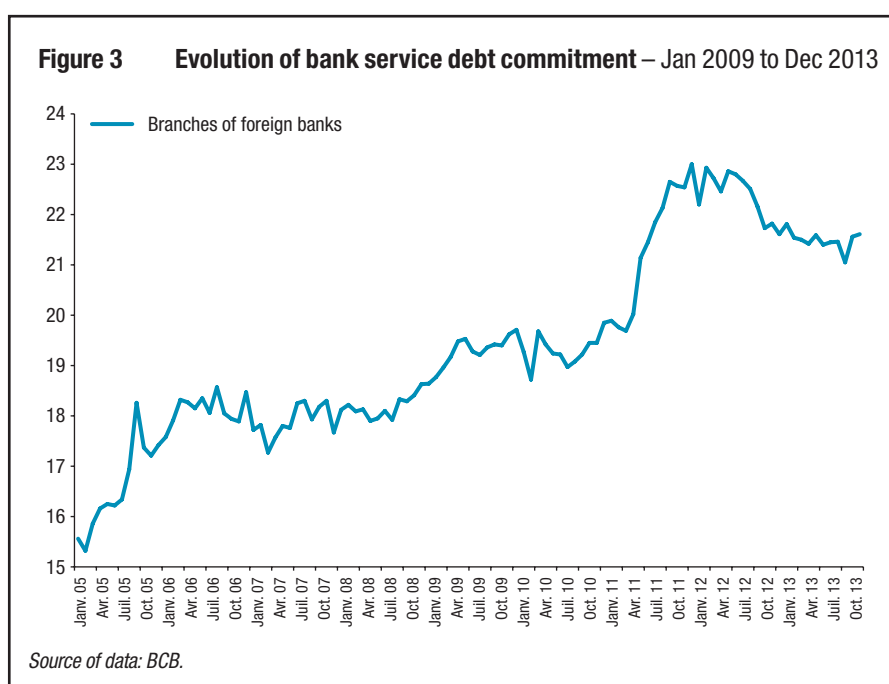
of credit and collateral values in the segment of motor vehicle financing. The BCB also saw potential risk in the maturity mismatch between assets and liabilities in the banking system. Moreover, the rise of credit default rates in Brazil throughout 2011 and 2012, particularly affecting vehicle financing, was not capable of contaminating housing finance (where overall defaults fell from 2.26% in March, 2011 to 1.64% in December, 2013). However, as risk aversion increased among private banks, it interrupted the accelerated trend of their credit operations, including housing finance. At that time, state-owned banks were already cooling down the expansion of their portfolios. Thus, from 2012 on, there was a strong reduction in the growth rate of housing loans (Figure 2) (FREITAS & CAGNIN, 2014).

Demand-side factors also influenced the observed deceleration. The sharp rise in housing prices – which will be discussed in the next section – well above the growth rate of household income, resulted in the need for larger debts in order to purchase a unit. Total household debt[33] went from 32.15% of a twelve month accumulated income, in January, 2009, to 45.5% in December, 2013. Household debt exclusively from housing finance grew in this period from

4.99% to 15.8% of a twelve month accumulated income. The very high level of interest rates in Brazil requires a heavy commitment of families' income to debts, hindering incurrence of new debt. Between January, 2009 and December, 2013, the commitment to service bank debt (interest plus amortization) went from 18.64% of families' monthly income to 21.61% (Figure 3).

4. Evidence of the housing price surge

The recent increased value of residential property in Brazil has been the result of income and employment growth topped with the expansion of public subsidies on the one hand, and, on the other hand, the expansion of credit supply, due to improvements in the regulatory framework of the housing finance system as well as the federal government guidelines enabling public banks, in particular CAIXA, to aggressively promote supply and improve affordability. This set of conditions allowed a greater number of families to qualify for credit and buy their first house. Given the inelastic supply, especially in prime areas of major metropolitan areas, where availability of land is scarce, this increased demand has conditioned the rise in prices.

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[29] Exceptions only in the year 2000, when the limit corresponded to BRL 369,000 (in prices of 2013) and in 2009 when the limit was expanded to approximately BRL 616,000 (in prices of 2013). (ELOY, 2013).

[30] According to the Brazilian Federation of Banks, the number of savings accounts per inhabitant over 15 years of age increased from 0.55 to 0.67 between 2006 and 2010. During the same

period, the balance of these savings per customer also grew, by 59% (FEBRABAN, 2011).

[31] Refer to footnote #19.

[32] FGTS 2013 financial statements have not yet been released.

[33] The BCB statistics only report bank debt (BCB, 2014, pg. 24).

The little use of urban policy instruments, established under the Statute of Cities, since 2001[34], which could deter the rise in land prices and better organize the construction of the urban space, also contributed to the price increases in the housing market.

The scarcity of information and lack of consistent and available databases in Brazil hampers studies on price behavior of housing markets. The few existing price indexes and databases reporting the construction and sale of real estate are privately owned, of limited geographical coverage (most in the state or city of São Paulo[35]) and based on unpublicized methods.

Recently, the BCB decided to compile a housing price index based on collateral values of residential real estate in 11 metropolitan areas of the country, since 2001, informed by financing agents – Real Estate Collateral Value Index [IVG-R][36]. Despite the importance of housing price indexes to assess the sustainability of housing markets, shortly before the release of IVG-R in 2013, the only residential price index available in Brazil was the FipeZap[37] index, calculated based on the average square meter price of finished apartments for sale, extracted from internet ads, since 2008. It started with Rio de Janeiro and São Paulo, then expanded to 7 municipalities, and currently covers 16. Despite its limitations, since it is based on advertised prices instead of actual transactions, and restricted to apartments, due to the absence of other options, the FipeZap index will be used for the present analysis, as well as the IVG-R.

The evolution of the IVG-R between March, 2001 and January, 2014 (Figure 3) shows an upward trend in early 2003, though remaining below the growth rate of IPCA, the consumer price index, as well as INCC, an index that captures the evolution of construction costs. It was only in mid-2006, when SFH regulatory changes were fully operational that the IVG-R exceeds the IPCA, and takes on an accelerated path. By mid-2007, the IVG-R has already exceeded the INCC, suggesting more favorable conditions for expanding the supply of new homes. In mid-2009, when state-owned banks boosted credit expansion and PMCMV started, the level

Figure 4   Evolution of IVG-R, IPCA e INCC (in Index numbers)
March 2001 to Dec 2013
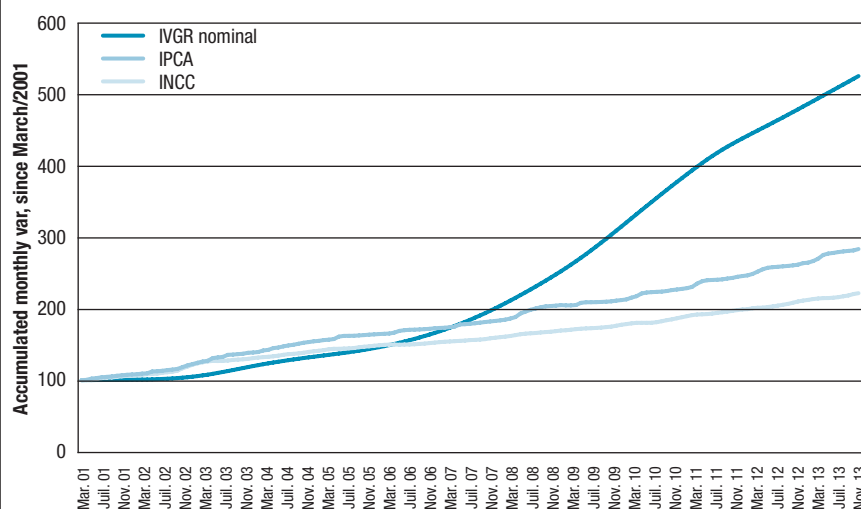
Source of data: IVG-R, BCB; IPCA, IBGE; INCC, FGV.

Figure 5   Evolution, in real terms (deflated by INCC) of IVG-R (%)
March 2001 to Dec 2013
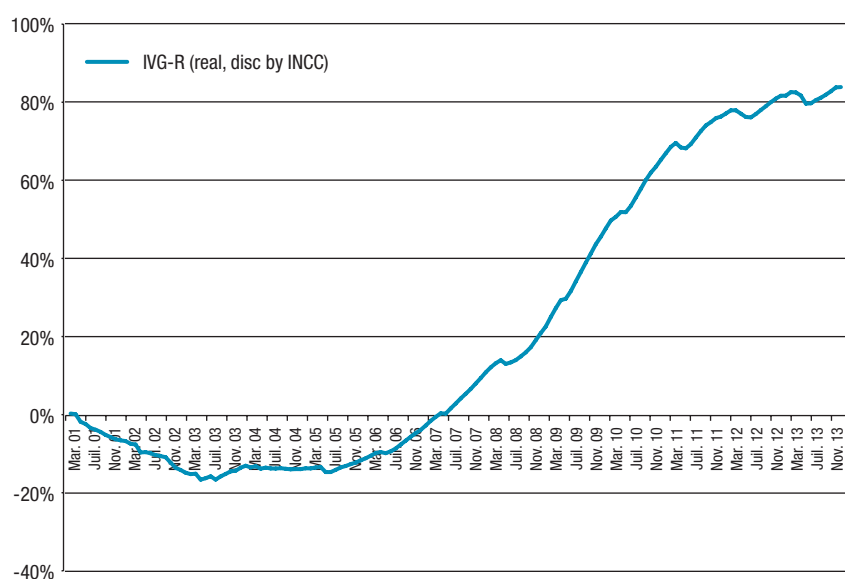
Source of data: IVG-R, BCB and INCC, FGV.

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[34] This Statute (Law No.10.257/2001, available at http://www.planalto.gov.br/ccivil_03/leis/leis_2001/l10257.htm) provides instruments to be used by local governments, according to municipal urban master plans, in order to prevent empty or underused urban land that favors price speculation.

[35] Particularly the Empresa Brasileira de Estudos de Patrimônio [Embraesp] and the Regional Council of Brokers [Conselho Regional de Corretores de Imóveis de São Paulo, CRECI-SP].

[36] The IVG-R [Índice de Valorizaçãode Garantia de Imóveis Residenciais Financiados] measures the long term trend of housing prices based on the appraisal values of residential units financed in the eleven metropolitan regions where IPCA is based (Belém, Belo Horizonte, Brasília,

Curitiba, Fortaleza, Goiânia, Porto Alegre, Recife, Rio de Janeiro, Salvador e São Paulo). The IVG-R was published for the first time at the BCB's Financial Stability Report in March 2013. It is based on loan contracts to families, where collateral is established by mortgage or trust deed. The appraisal value of the property when the loan is approved is the primary source of information to compile the index. To better understand it, refer to BCB, (2013).

[37] The FipeZap index is calculated based on the average square meter price of finished for sale apartments, in 7 municipalities, from internet ads, since Oct/2010 (2008 for RJ and SP). Data is thus based on advertised prices, rather than actual transactions. More recently other 9 municipalities were added. See: http://www.fipe.org.br.

Figure 6   **Evolution, in real terms (deflated by INCC) of IVG-R and FipeZap (%)**
Aug 2010 to March 2014
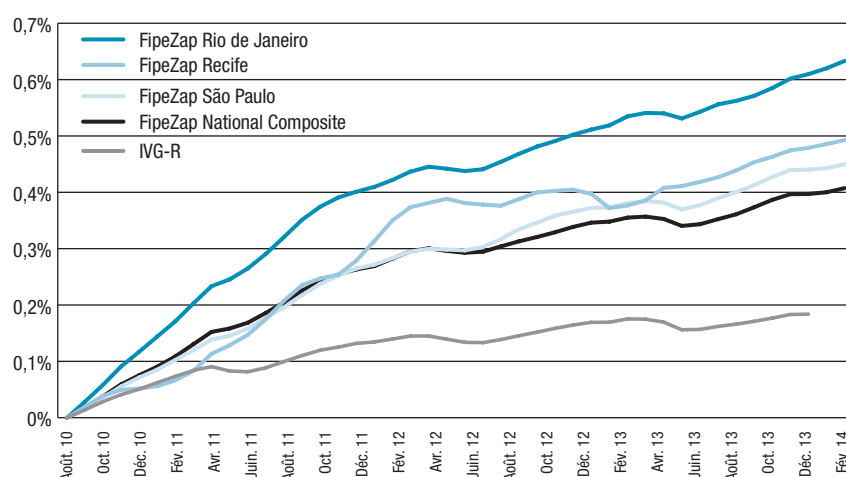
Source of data: FipeZap, Fipe; IVG-R, BCB, INCC, FGV.

of home prices reinforced its acceleration trend, taking off even more from the evolution of IPCA and INCC.

Considering the INCC to be a more adequate deflator to measure the cost of housing construction, the evolution of IVG-R, in real terms, is shown in the Figure 5 below.

From 2001 to 2006, the deflated IVG-R shows that the evolution of housing prices did not follow building costs, with its lowest peak in 2003. Since then, as prices, in real terms, begin to move upwards, the expectation that the upward trend would be maintained stimulated more construction projects. After mid-2007, national average prices of residential properties presented significant real increases, reaching 80% in late 2012.

According to the FipeZap composite national index, prices, also discounted by INCC, showed a 40% rise from Aug, 2010 until January, 2014, way above the IVG-R for the same period. Again, it is important to consider the differences in methods. Figure 6 below shows the evolution of FipeZap indexes – national composite and Rio de Janeiro, Sao Paulo and Recife, the cities that exceeded the national average.

It is a fact that residential real estate prices rose far above inflation rates as shown in previous charts. There is evidence that the increases are not homogeneous and that the highest increases are seen in some cities, and particularly in some prime areas of these cities. In Rio de Janeiro, for example, in January 2014, the average square meter price of apartments in Leblon was announced for BRL 21,622.00, in Gávea for BRL 16,395.00, while in Pavuna for only BRL 2,211.00[38].

After 2005, construction activity was more active, responding to the price signals and the strong capitalization of the sector. The IPOs [Initial Public Offerings] made by companies in the construction industry since 2005 involved, until November 2007, 28 launches of developers in the São Paulo Stock Exchange [BOVESPA], with 18 real estate residential companies and resulted in a total of BRL 22 billion (LIMA Jr, 2012). There has been also a significant inflow of foreign capital in partnership with local developers through real estate funds[39].

During this period, attracted by the increased demand, particularly by PMCMV, many real estate companies decided to diversify their operations, moving to some economically

dynamic cities and targeting market segments that were new for them (LIMA Jr, 2012). The capitalization of these companies – whether commercial or residential real estate – through the issuance of shares, foreign capital investment and the largest supply of credit, also stimulated them to form land banks. The eagerness for land acquisition, especially in prime areas of major cities in the country, based on the expectation of future appreciation of home prices, did exert additional pressure on costs, passed on to the price of new homes.

In his analyses of price increases based on IVG-R, Lima Jr. (2014) concludes that the rises observed between 2005 and 2013, are the result of inflated construction costs, while profit margins were maintained. According to the author, the cost pressure is much stronger than what has been picked up by the INCC – somewhere around an average of 16.5% per year above the INCC –, due to the fact that this index has not taken into account the distortions of input costs that occurred in labor subcontracts, productivity losses, and particularly land prices (including the costs of "Outorga Onerosa" and CEPACs[40]).

As discussed, firstly the increased credit supply and affordability conditioned the rise in home prices. Then, countercyclical policy and the expansion of the federal government housing subsidies, without proper linkages to land and urban policies to combat land speculation, gave new breath to escalating prices.

Yet, the rise in housing prices above production costs, which has fostered the expansion of supply, has begun to face limits from the dynamics of household income growth (Figure 7). Even the possibility of accommodating the trajectories in housing prices and household income by the credit market, through the lengthening of mortgage terms and higher LTVs is limited, particularly in a conventional and regulated housing finance market such as the Brazilian SFH, where lending conditions are overseen by the regulator. Although affordability has been somewhat stretched, so far there is no evidence of easy credit.

The FipeZap index, despite caveats made regarding its limitations, suggests a price deceleration trend, in real terms, particularly from

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[38] FipeZap Monthly Report, Jan/2014.

[39] Despite the initial excitement around the IPOs, which resulted, at first, in the appreciation of those companies' shares above the Bovespa Index (overall BM & FBovespa), from 2010 on the performance of these companies were seriously questioned by the market, given the observed structural deficiencies and management, evidenced by losses on balance sheets especially in 2011.

[40] "Outorga onerosa" is a concession made by the municipality that authorizes the land owner to build above the limit set by the regulations (basic use coefficient), against a fee (financial contribution) paid to the municipality. The Certificates named CEPACs also extend the right to build according to municipal regulations, but in this case, the certificates are issued for areas that receive expanding urban infrastructure, and the funds must be used in specific improvements in the area.

Figure 7 **Evolution of average real work income and real estate residential prices (FipeZap) in São Paulo [SP] and Rio de Janeiro [RJ]**
Dec 2009 to Feb 2014 – accumulated 12 month variation
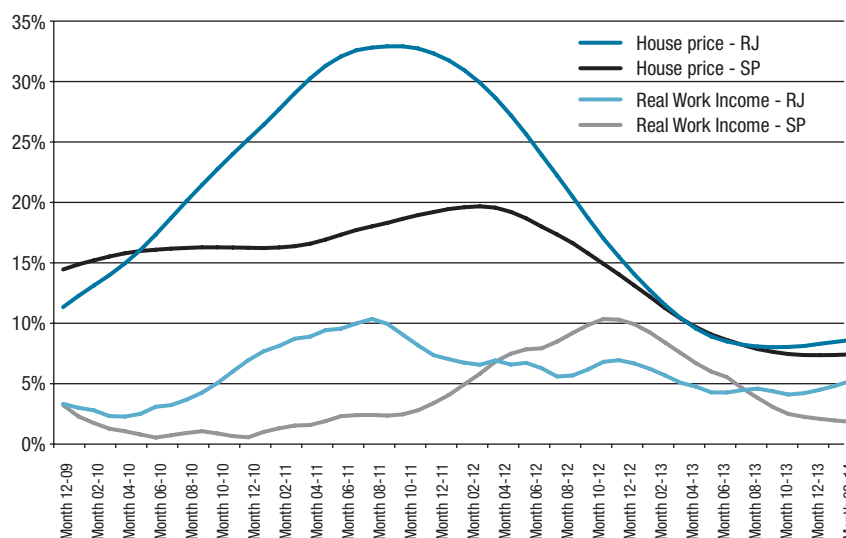
Source of data: IBGE and Fipe.

2013 on. In its January, 2014 Report, monthly price increases are already lower than inflation in 6 cities surveyed, and in São Paulo the monthly variation was the lowest in the time series, since 2008[41]. Considering the 16 cities currently monitored, the average increase recorded this month was 0.8% (against 1.0% in December/2013), just a bit above the INCC of 0.7% in the period. In January, 2014, the largest increase was recorded in Florianópolis, where prices rose 1.6%, while Brasilia had a 0.3% drop. In February, 2014, the FipeZap expanded index (16 cities) stood at 0.57%, against the INCC at 0.44% and the IPCA at 0.69%, confirming the deceleration path. In March, 2014, the FipeZap expanded index increased by 0.64%, with Rio de Janeiro with the biggest rise in prices at 3.35%, while the IPCA hit 0.92% and the INCC was only 0.22%.

The introduction of financial innovations that enhance borrowers' leverage, allowing those with a riskier profile to qualify for credit, as occurred in the U.S., has been hampered by the earmarked credit circuit comprised by Brazil's

SFH. So even if/when the convention regarding residential property prices revert, it will hardly entail financial instability in the country and it is unlikely that it would produce a sharp drop in prices, as seen when "bubbles" burst. The latest data suggest that the rise in prices is faltering and that the expansion of mortgage loans is also tending to lose momentum.

5. Final remarks

Even with the lack of more comprehensive databases for home transactions and finance, it is clear that there has been a major expansion of housing finance and rise in housing prices in Brazil over the last years, particularly in the main metropolitan areas of the country, typical of the ascending phase of asset cycles.

Nevertheless, there is no evidence of the increasing complexity of credit and debt relations, which are usually tied to those processes, suggesting that there is no threat of financial and economic instability, mainly due to the con-

servatism that still characterizes the provision of housing finance in Brazil.

The introduction of financial innovations is an important element of such increasing complexity, especially in periods of strong property price growth, way above borrowers' income and greater bank competition. There are, however, barriers to those innovations in the country's regulatory system. Besides the nature of the Brazilian legal system (civil law)[42] it seems that the SFH has left little room for the design of unconventional contracts, as was the case in the United States.

Therefore, it is more likely that competition amongst financing agents produces longer mortgage terms, higher LTVs and borrowers' income commitment, but only up to the limit defined by the SFH rules. Aware of this development and following the International Monetary Fund's [IMF] recommendations, the BCB issued Resolution #4,271, in September, 2013, adding to SFH's regulation, more restrictive criteria rules for assessing the repayment capacity of the borrower and for mitigating credit risk, based on best practices already adopted by some national financial institutions[43], as well as limiting LTV to 80% (expandable to 90% exclusively for loans amortized by the Constant Amortization System[44]).

The use of securities (Certificates of Real Estate Receivables, CRIs) in the real estate finance market remains very limited in Brazil, and its stock in December 2013 amounted to only 0.88% of GDP and most of it is not originated from housing financing. Real Estate Bonds such as LCIs [Letra de Crédito Imobiliário] have had a much more prominent role, with their stock reaching 2% of GDP at the end of 2013[45], totaling BRL 96,6 billion, a growth rate of 32.4% over 2012[46].

Thus, housing finance in Brazil remains based on a more conservative approach and the banking system seems still quite solid. The Basel (Capital Adequacy) Ratio for the entire national financial system was, at the end of 2013, 16.6% (against 16.4% in December, 2012), well above the regulatory minimum of 11% for the country. The Basel Ratio of CAIXA, the largest lender in the system, was also well above the requirement at 15.1%

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[41] The FipeZap index was first measured in São Paulo, in 2008.

[42] In countries where common law prevails (everything that is not forbidden is allowed), as the United States and Britain, financial agents have greater freedom to develop new practices and financial instruments than in those countries where the civil law is the prevailing legal system (everything that is not allowed is forbidden) (AGLIETTA, 1987; FREITAS, 1997; CAGNIN, 2009).

[43] It determines that the monthly flow of borrower's income and expenses be verified, in order to assess the actual borrowing capacity of the mortgagee, instead of using an arbitrary percentage (commonly 30% or less) to determine monthly commitment.

[44] In Brazil the Constant Amortization System is the prevalent amortization system, since the Price system has been the subject of litigation in the country. On this subject, see Magalhães Eloy and Paiva (2011).

[45] Data available at www.cetip.com.br.

[46] Uqbar Yearbook, 2014, available at www.uqbar.com.br.

at the end of 2013. According to a stress test performed by the BCB this year, a decline of at least 45% in housing prices would be necessary in order to elevate default up to a level that would lead the Basel ratio of any bank in Brazil to fall below 11% and a 55% reduction in prices for any bank in the country to become insolvent. Even in extreme cases of falling house prices, the national financial system would still comply with Basel.

Besides the fact that no evidence of increased risk-taking has been found so far, it is worthwhile to analyze the recent expansion of housing finance in Brazil in relative terms. The high growth rates conceal the very low funding base: despite all the recent developments, the share of housing loans to GDP (just recently over 8%) is still well below the international average[47].

The slowdown in housing finance and housing prices seems to be gradual. In the absence of progressive complexity of credit relationships, it is very unlikely that this slowdown will engender a sudden reversal of housing prices, typical of asset markets' bubble bursts. Thus, the argument for the existence of a bubble tends to weaken, reducing related fears.

In any event, it is most necessary that the country evolves rapidly in publicizing information and building databases and indicators that allow more assertive analysis and monitoring of the housing market crucial to the design of better regulations and policies. Information on loans and also on loan denials is fundamental to develop and evaluate housing and subsidy programs as well.

Additional stimulus that would promote price rises may not yet be discarded though, as pressure from builders to raise price ceilings on PMCMV and SFH keeps getting stronger, especially in an election year. Nonetheless, the evolution of borrowers' income will remain as a restriction against further price increases. The third phase of PMCMV has been signaled by the federal government, to be officially announced before the October 2014 elections, with estimates of over 3 million new subsidized units, indicating that this program is likely to become a permanent policy, regardless of its countercyclical objectives. It is time to promote adequate adjustments to this program, in spite of lobbying by entrepreneurs, and make the necessary linkages with land and urban policies, to avoid subsidies being captured by developers and landowners through rising prices, but this is yet to be seen.

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[47] For a recent comparison, refer to Hofinet:
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Home truths for New Zealand:
A swarm of policy reforms needed

↳ **By Shamubeel Eaqub**

1. Introduction

New Zealand has very high house prices relative to incomes, rents and global peers. House prices are out of kilter because of a number of reinforcing forces.
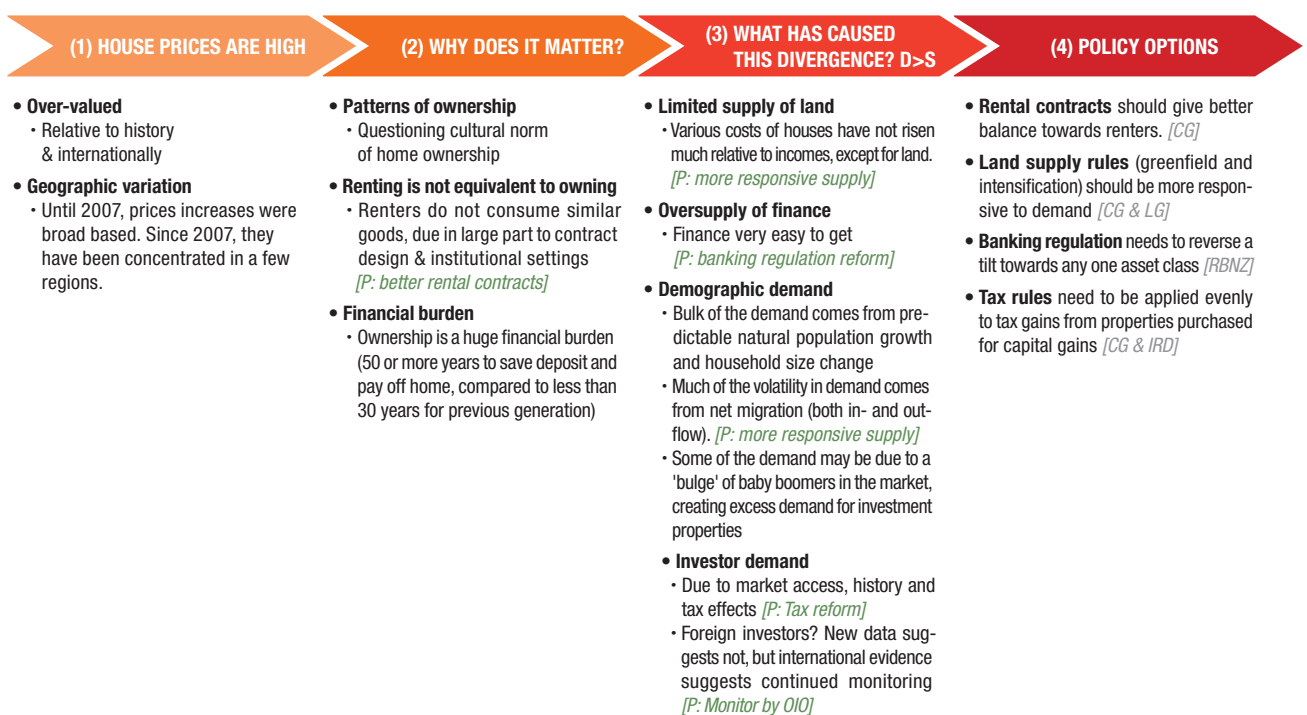
At the heart is a culture of home ownership and housing investment. This is reinforced by relatively easy access to credit compared to other investments, which has gotten easier over time. There are tax advantages to property owner-ship (both real and perceived). Housing supply is also slow to respond to demand – creating frictions that drive prices higher (although this should be temporary). Finally, renting is not a comparable option to home ownership, because New Zealand has some of the most restrictive rental policies in the world.

There is no easy fix to New Zealand's over-valued housing market. Whether house prices spiral up or down, the necessary policy choices are long term and will need to be put in place as a complementary set. A Swiss-army approach to a knotty problem. Regulation overly favours mortgages over other types of lending – this needs to change. We need to remove the tax advantages of real estate investment. We need to ease rules slowing housing supply. We need to make renting a palatable and comparable alternative to owning.

Figure 1   Unlocking home truths: policy options

(1) HOUSE PRICES ARE HIGH	(2) WHY DOES IT MATTER?	(3) WHAT HAS CAUSED THIS DIVERGENCE? D>S	(4) POLICY OPTIONS

• **Over-valued**
  · Relative to history & internationally
 	
• **Geographic variation**
  · Until 2007, prices increases were broad based. Since 2007, they have been concentrated in a few regions.
	• **Patterns of ownership**
	  · Questioning cultural norm of home ownership
	
	• **Renting is not equivalent to owning**
	  · Renters do not consume similar goods, due in large part to contract design & institutional settings *[P: better rental contracts]*
	
	• **Financial burden**
	  · Ownership is a huge financial burden (50 or more years to save deposit and pay off home, compared to less than 30 years for previous generation)
		• **Limited supply of land**
		  · Various costs of houses have not risen much relative to incomes, except for land. *[P: more responsive supply]*
		
		• **Oversupply of finance**
		  · Finance very easy to get *[P: banking regulation reform]*
		
		• **Demographic demand**
		  · Bulk of the demand comes from predictable natural population growth and household size change
		  · Much of the volatility in demand comes from net migration (both in- and out-flow). *[P: more responsive supply]*
		  · Some of the demand may be due to a 'bulge' of baby boomers in the market, creating excess demand for investment properties
		
		• **Investor demand**
		  · Due to market access, history and tax effects *[P: Tax reform]*
		  · Foreign investors? New data suggests not, but international evidence suggests continued monitoring *[P: Monitor by OIO]*
			• **Rental contracts** should give better balance towards renters. *[CG]*
			
			• **Land supply rules** (greenfield and intensification) should be more responsive to demand *[CG & LG]*
			
			• **Banking regulation** needs to reverse a tilt towards any one asset class *[RBNZ]*
			
			• **Tax rules** need to be applied evenly to tax gains from properties purchased for capital gains *[CG & IRD]*

Source: NZIER (Notes: P are policy issues and in green are relevant authorities (CG=central government, LG=local government, RBNZ=Reserve Bank of New Zealand, IRD=Inland Revenue Department, OIO=Overseas Investment Office) to implement change.)

2. House prices are high

New Zealand house prices are very high, compared to history and globally. High house prices are a risk to financial, economic and social stability.

House prices surged from 2001, outstripping general prices, rents and incomes. House prices are near record highs relative to history and global peers.

Very high house prices pose several risks.

Financial risk is usually the most immediate, as seen in the US and Ireland in particular. House prices slumped during the Global Financial Crisis [GFC], causing significant financial sector turmoil. Many banks failed, following sharp increases in bad debts, which were compounded by job losses, and these influences reinforced each other, creating a spiral into one of the deepest recessions since the Great Depression of the 1930s.

New Zealand has avoided this risk so far, even when house prices fell during the GFC. This was helped by a resilient financial sector, which did not participate in recklessly risky behaviour like many financial institutions in the US.

Even though New Zealand avoided financial sector calamity, the economy was very weak. This was in part related to the housing market. In the decade preceding the housing market peak in 2007, the economy was increasingly reliant on house price gains to fuel house construction and borrowing for consumption. Rapidly rising house prices meant home owners were becoming wealthier and did not feel the need to save from their current incomes.

The economy became addicted to house prices, debt, consumption and house construction. Increased capital inflows, mainly to supply mortgages to the hot housing market likely also appreciated the exchange rate and cheapened imports. But these came at a cost: other parts of the economy, particularly export sectors, atrophied.

So, when the recession hit in 2007, the economy was too focussed on house prices as its main engine of growth. When house prices stopped their previously seemingly inevitable rise, consumer confidence collapsed and the export sector was not resilient enough (outside of dairy) to fill the void. Households retreated to reduce their debt and that weighed on economic growth and unemployment. It became harder to pay down debt, which saw households hunker down

even harder. The GFC in late 2008 amplified the home grown recession.

The New Zealand economy has taken 6 years to recover from the recession, on a GDP per person basis. This is the longest and deepest recession since the great depression.

While house prices cooled during the recession, Auckland and Canterbury house prices have

surged over recent years. Canterbury house prices have soared following many homes being damaged during the 2011 earthquakes. But the Auckland house prices have risen without 'one-off' factors and Auckland is now one of the most expensive cities in the world.

There is increasingly a geographic divergence in house price. House price gains during 2000-2007 were synchronised across regions, suggesting

Figure 2   House price to income ratio
Multiple of annual household income

Source: QVNZ, Statistics NZ, NZIER.

Figure 3   House price overvaluation
Overvaluation to income (%); 2013*
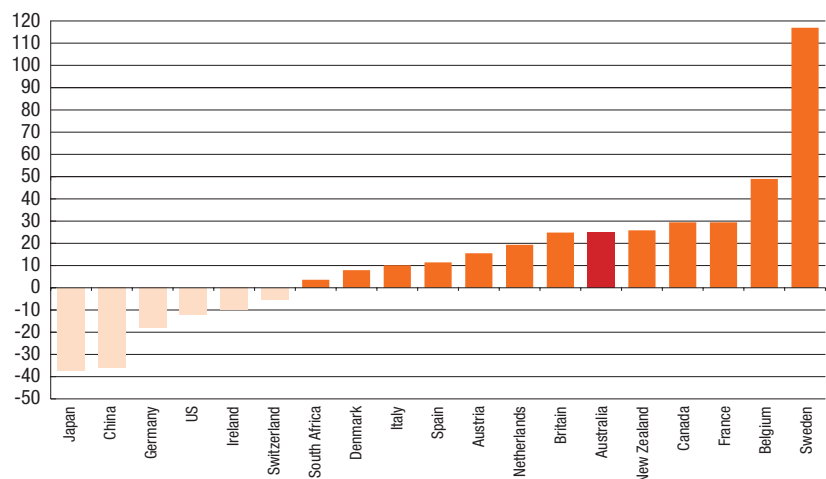
Source: The Economist, QVNZ, Statistics NZ, NZIER.

* The deviation in house price to income ratio from historical average. In this measure New Zealand's house price to income ratio was 26% higher than the historical average in 2013.

similar prices drivers. But over recent years, house price gains have diverged across regions. In 2013 and 2014, most regions had house prices in keeping with their incomes. But a few regions were unaffordable relative to income prospects in that region. They reflected some obvious variations, like popular retirement locations, where the residents are income poor but asset rich. Popular holiday home destinations also appear over-valued, because the local jobs are not as high paying as those purchasing holiday homes – distorting the statistics. But Auckland house prices appear to have diverged for other reasons and we deal with them separately.

3. Why does it matter?

Houses have become unaffordable for many, particularly younger generations that have been raised with a cultural expectation of home ownership. There is a sense of inequity amongst younger generations.

The cultural expectation of home ownership is ingrained. Home ownership rates rose for almost a century, until the early 1990s. Home ownership rates are now the lowest since 1951.

Renting is becoming increasingly common. But rental contracts tend to be short term and current contract structures are not well suited to long term tenure.

4. Growing inter-generational inequity

The difference in generational outcomes can lead to significant social tensions. In the first instance, there can be a breakdown in social cohesion between the older 'haves' and the younger 'have-nots'.

There is an inter-generational gap. Those purchasing homes in the early 1990s could have done so in 30 years, to save a deposit and to pay off the mortgage. But for a home purchaser in Auckland now, it will take at least 50 years to buy a home – leaving little time to accumulate other retirement savings and the home owner is in debt, thus more vulnerable to financial shocks for a longer period of their working lives.

5. Increasing financial burden of home ownership

If house prices remain overvalued relative to incomes, the current intergenerational dif-
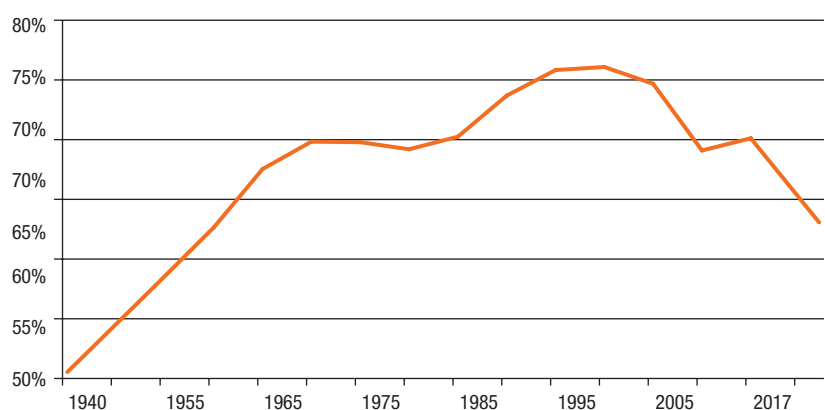
Figure 4   House price valuation metrics
2007 and 2013*
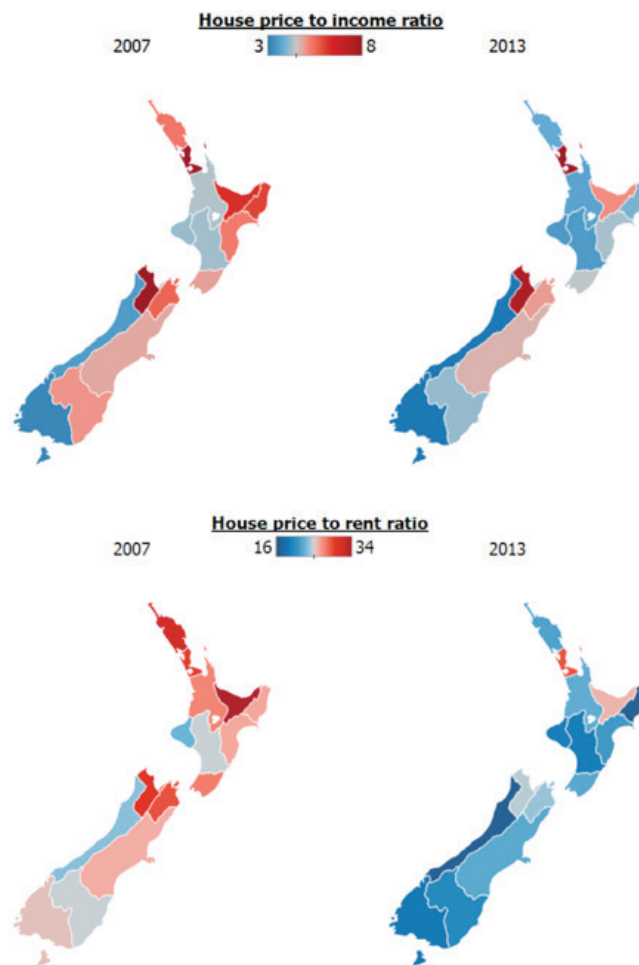
Source: QVNZ, Statistics NZ, MBIE, NZIER.

* House price to annual household income and house price to annual rent ratio.

Figure 5   Home ownership rate
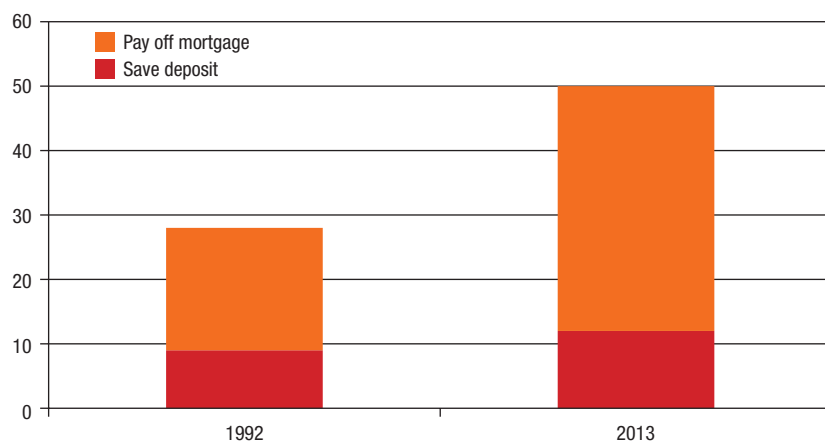Owner occupier share of all defined tenures

Source: Statistics NZ, NZIER.

Figure 6   Years to buy a home in Auckland
Vertical axis - years to buy home.
Horizontal x-axis – year of calculation.
Based on the following assumptions: save 15% of income
for 20% deposit, 6% mortgage rate, 1/3 of income in mortgage
repayments, for a household on the average income.

Source: NZIER.

ference in ability to purchase houses could increase inequality in wealth and living standards. Children of existing home owners can hope to inherit valuable homes. But children of non-homeowners may never aspire to own their own homes – depriving them of the ability to save through a house and possibly of social mobility.

6. The cause célèbre of home ownership

Home ownership is celebrated for a number of reasons. A Grattan Institute report[1] cites a number of benefits:

• Achievement and psychological reassurance by being part of the cultural norm

• Reduce future housing costs through ownership (although this often ignores opportunity cost of funds tied up in houses)

• Building wealth through houses for retirement and a safety net should they exhaust other wealth in retirement (housing wealth makes up 69% of household net wealth in New Zealand[2])

• Housing is the most common security for borrowing, including for businesses. The cost of mortgages is usually much lower than for business borrowing.

• Owner occupiers have greater stability of tenure thus improving social cohesion (more likely to promote civic participation).

Home ownership has some costs as well:

• Households attain concentrated exposure to one asset class with a significant amount of leverage and the size of the investment means that those buying homes are often unable to diversify their risks through other savings and investment

• Owner occupiers are typically less mobile than renters, meaning they may be less able to access employment opportunities

• Existing home owners may restrict new housing to increase the value of their asset, reducing the public benefit.

The evidence on the benefits and costs of home ownership is not unequivocal. There is little evidence that other rich countries with low home ownership rates (Switzerland and Germany for

example) do not display the same characteristics of social cohesion and other factors cited as the costs and benefits of home ownership. Nevertheless, there are strong perceived differences. In part, this perception is supported and magnified by rental arrangements.

7. Renting is a poor substitute

The cost of renting has remained broadly stable relative to incomes over a long period of time (many decades). But renting, particularly long term renting, is often a poor substitute to owning. The rights and obligations are so different between renting and owning, that they may be considered different things (economic goods). The most relevant differences are:

• Length of tenure

• Customisation of home for personal use (pets and minor alterations for example).

Even though more New Zealanders are living in rented homes, many are not able to enjoy the full benefits of a home because of poor rental contract arrangements.

Renting and owning are both governed by contracts and institutional settings that define a person's rights and responsibilities. Many of the existing gaps between renting and ownership can be bridged, at least partly, through improved contractual arrangements.

A sample of international comparisons by the Grattan Institute[3] shows that Australia and New Zealand[4] are some of the most restrictive rental jurisdictions. Lease terms are short, tenants can be asked to move with short notice, leases can be terminated on almost any condition as long as notice is given and personal customisation is often difficult (pets, minor alterations, etc.).

Until renting is a comparable option to owning, designs of rental contracts, professionalism of landlords and the various institutions related to renting will continue to create incentives for home ownership over renting.

8. Why are house prices so high?

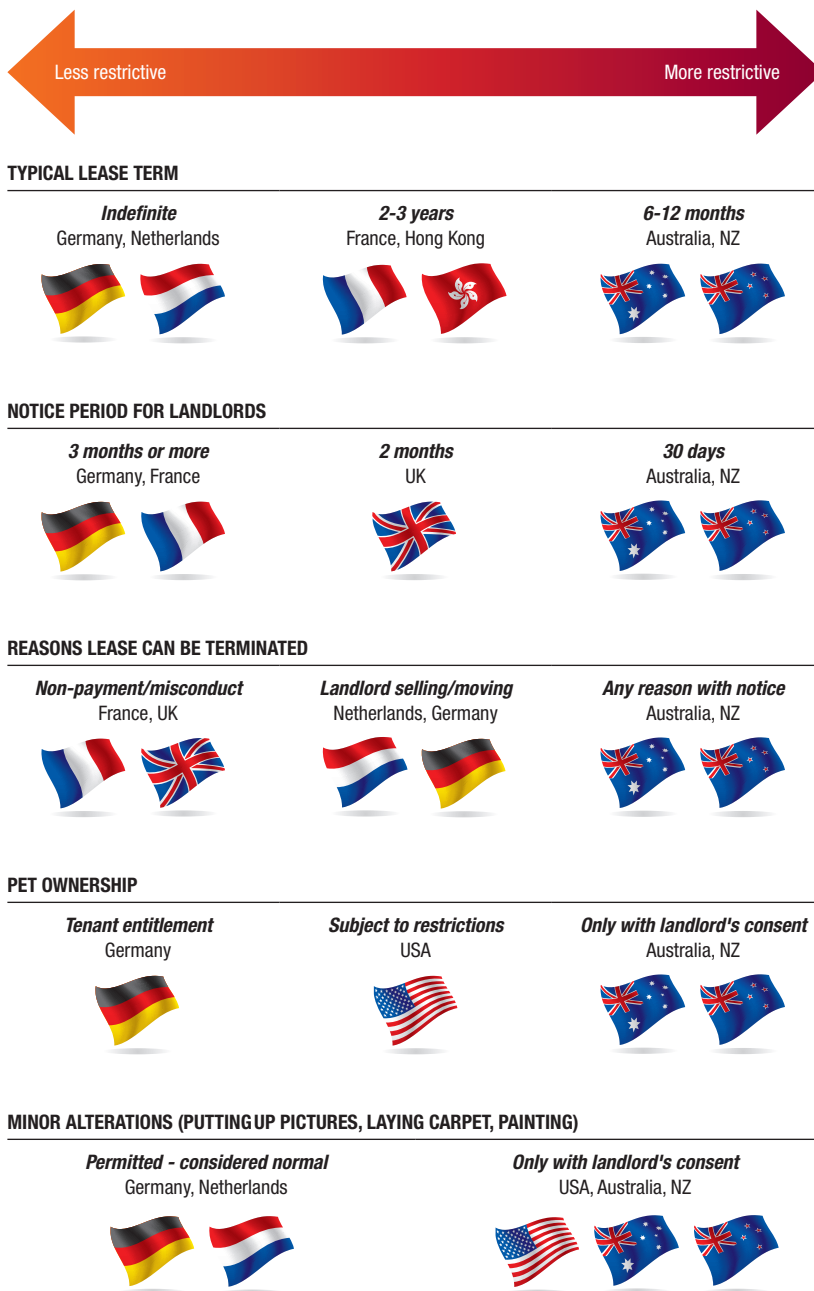House prices in New Zealand are high relative to incomes, rents, history and international

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[1] Kelly (2013).

[2] As at December 2012; http://rbnz.govt.nz/statistics/tables/c18/ accessed 22 January 2014.

[3] Kelly (2013).

[4] NZIER analysis.

Figure 7   Rental conditions in selected countries
Stylised rental settings

Less restrictive ← → More restrictive

TYPICAL LEASE TERM

| *Indefinite* Germany, Netherlands | *2-3 years* France, Hong Kong | *6-12 months* Australia, NZ |

NOTICE PERIOD FOR LANDLORDS

| *3 months or more* Germany, France | *2 months* UK | *30 days* Australia, NZ |

REASONS LEASE CAN BE TERMINATED

| *Non-payment/misconduct* France, UK | *Landlord selling/moving* Netherlands, Germany | *Any reason with notice* Australia, NZ |

PET OWNERSHIP

| *Tenant entitlement* Germany | *Subject to restrictions* USA | *Only with landlord's consent* Australia, NZ |

MINOR ALTERATIONS (PUTTING UP PICTURES, LAYING CARPET, PAINTING)

| *Permitted - considered normal* Germany, Netherlands | *Only with landlord's consent* USA, Australia, NZ |

Source: Adapted from Kelly (2013).

The supply and demand factors, alongside the enabling impact of finance, influence the price of housing: rents and home ownership. They interact with each other. For example, when house prices are rising, investor demand may increase as more chase capital gains, but reduce owner occupier demand as ownership becomes more expensive.

9. Prices suggest land supply is a significant issue

The costs of housing and their components have not risen consistently:

• Land prices have risen sharply. Although they eased following the housing market peak in 2007, they remain high relative to history.

• Existing home prices are also very high relative to income, but given construction costs have not risen much, the increase largely reflects the land component.

• Construction costs rose during the construction boom and fell during the recession, although they are a little higher than the historical average.

• Rents have been broadly stable relative to incomes over time.

10. Is land supply constrained?

Land prices show that there is a constraint, or that there is a persistent excess of demand relative to the speed of supply. However, it is not clear that it is leading to a 'shortage' of housing.

At a very broad macro level, we look at the stock of unoccupied dwellings as a measure of slack, similar to the unemployment rate in the labour market. Consistent data beginning in 1966 shows that the national housing vacancy rate has typically ranged between 8%-10%, but rose to higher levels more recently.

In Auckland, housing vacancy fell sharply in the mid-1990s, when a surge in immigration was not immediately met with increases in supply. But supply responded with a lag and the vacancy rate returned to the historical average by 2000.

Our analysis of the housing vacancy rate suggests two possible issues:

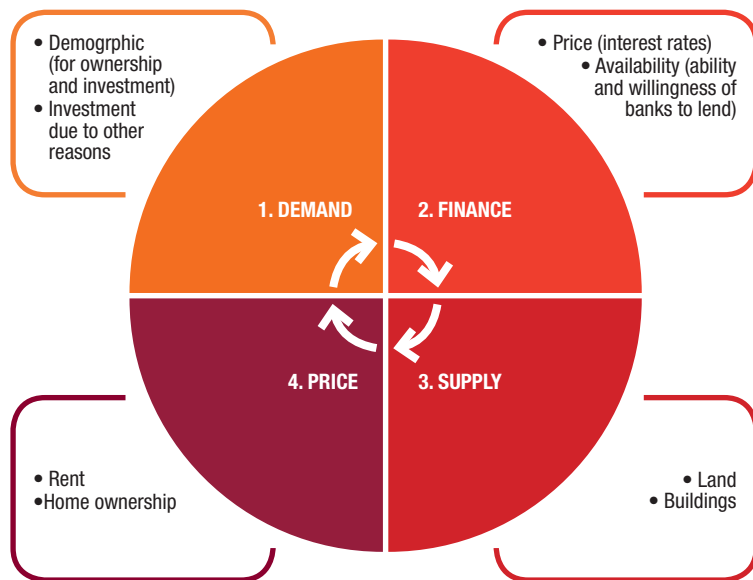• The speed of land supply

• The speed of new construction

peers. In the most basic sense this is because demand exceeds supply. House prices are a reflection of many push and pull factors. It is not immediately clear which factors are dominant in causing overvaluation in home prices. It is our hypothesis that it is an interaction of all of these factors, rather than just one single driver.

The demand for housing can be physical (to live in) or for investment purposes – so household formation and investment demand can be important drivers.

The realisation of demand into home purchases is enabled by the price and availability of finance, because houses are expensive and few can afford to buy them with accumulated savings alone.

The supply of houses is in two parts, land and buildings. The regulatory and economic factors in determining their supply are different. Their prices have also behaved very differently, so it makes sense to look at them separately.

Figure 8   Supply, demand, finance and price interactions
A stylised representation of the interrelated influences

- Demogrphic (for ownership and investment)
- Investment due to other reasons

1. DEMAND

- Price (interest rates)
- Availability (ability and willingness of banks to lend)

2. FINANCE

- Rent
- Home ownership

4. PRICE

3. SUPPLY

- Land
- Buildings

Source: NZIER.

Figure 9   Housing costs relative to income
Index (1995=100)

- Section
- Existing home
- Construction cost (135 sq. metre home)
- Rent

Source: Statistics NZ, REINZ, NZIER.

We find that housing supply growth is responsive to household formation in most regions, with Auckland a notable exception. Auckland's persistently low housing vacancy rate and relatively high level of house prices may be explained by this.

However, supply response showed no clear bearing on house price gains during 2001-2006, when the housing boom was in full swing. There is a weak relationship in the 2006-2013 period, but it is unconvincing.

Our spatial analysis[5] shows that Auckland's geography is a key constraint. Auckland is narrow – squeezed between two harbours. It makes transport links and proximity to the city centre difficult and land close to the city centre scarce relative to other cities. This means Auckland's house prices tend to be more expensive than in other comparable cities. Policies on land supplying greenfield sites, density and height restrictions, and transport can alleviate these pressures.

Our analysis suggests that there are structural reasons why Auckland may be more expensive than other places. But we do not believe the premium for Auckland house prices will continue to increase forever. Rather, recent increases reflect partly structural issues and a large dose of speculation.

The time to construct a home tends to lengthen during economic booms, when resource constraints start to bite. This is evident in the rising cost of construction labour and construction costs more generally during an upswing. There is potential to improve productivity in the construction sector, but it is not a binding constraint in our view.

11. Oversupply of finance

A house is a large purchase that is typically debt funded. Banks are the primary source of funding. Banks have traditionally lent mortgages on the following typical terms:

- 20% deposit
- 20-30 year table mortgage[6]
- floating or fixed interest rates for up to 5 years
- interest payments 1/3 of income

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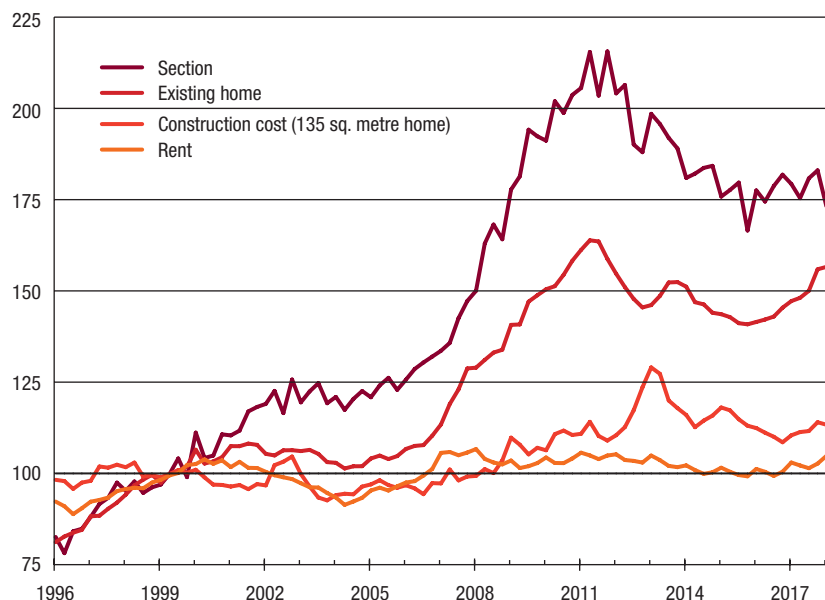
[5] Lees (2014).

[6] Table mortgages are common in New Zealand. The repayments do not alter over the life of the mortgage. At the beginning, most of each repayment is interest, by the end you're mostly repaying principal.

Figure 10   House vacancy rate
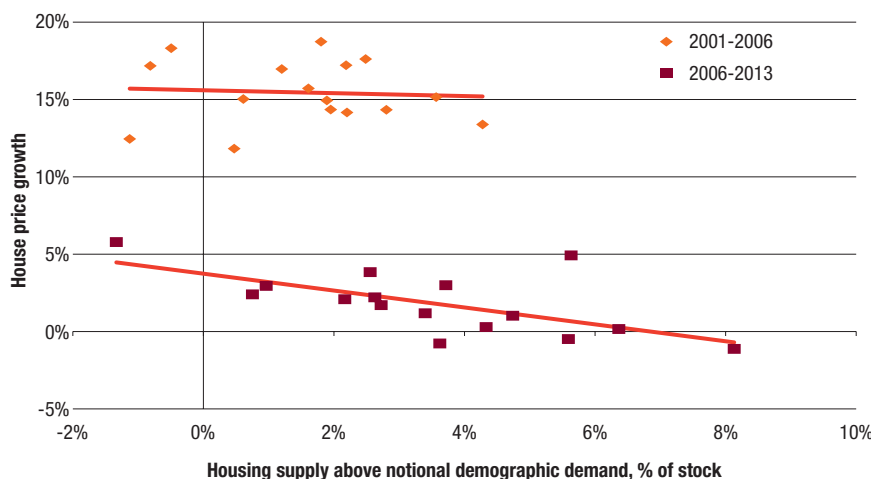Unoccupied % share of all houses

Source: Statistics NZ, NZIER.

Figure 11   Elasticity of housing supply and house price increases
House price growth on y-axis; housing supply responsiveness on x-axis; each dot represents a region


Source: Statistics NZ, QVNZ, NZIER.

Figure 12   Slow housing supply response
Realised supply growth exceeding notional demographic demand; % of stock

Source: NZIER.

However, these standards have slipped over time. Using the traditional model a person with $100,000 of annual income could buy a house worth $414,000 (with a $313,000 mortgage). But now, banks are likely to lend much larger sums. Using a bank calculator (which may not be approved) we found that the same $100,000 of annual income could buy a house worth $775,000 (with $735,000 of mortgage). This represents a massive loosening of financial standards and has enabled more mortgage funds to be directed towards housing.

The loosening of financial standards has happened over time. Household debt has trended higher over a long period of time relative to income. This increase in indebtedness has coincided with rising house prices relative to incomes. This suggests that increase indebtedness in the economy has at least partly contributed to the increasing price of homes.

Restricting credit availability or an increase in credit costs could reduce these effects. However, we believe a fundamental re-analysis of the banking sector is needed. Banks hold less and less investor equity capital – with the regulatory risk weighted capital boosted by increasing lending in housing, which is deemed to be less risky. The banking regulatory structure creates a preference for house lending.

The Reserve Bank of New Zealand has responded to looser financial conditions by imposing macro-prudential tools. The RBNZ has a range of macro prudential tools at its disposal, including increasing capital requirements for banks, increasing funding requirements and restricting the quantity of low deposit lending.
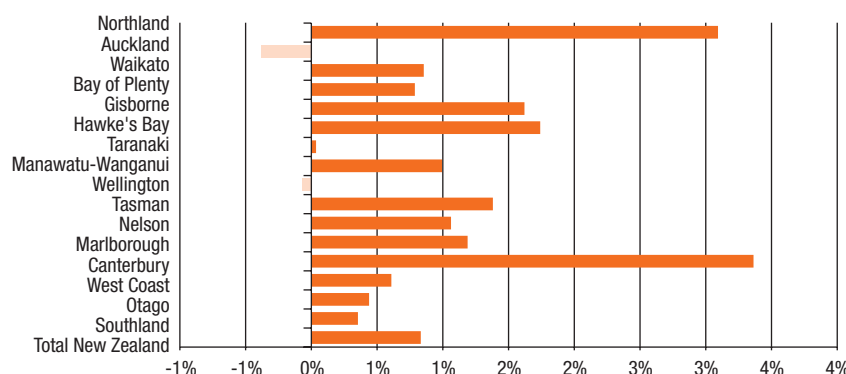
The RBNZ introduced low deposit lending restrictions in late 2013 – fearing that a renewed house price surge could pose risks to the financial system. This is a temporary measure and is likely to be unwound once house prices moderate. However, we believe the RBNZ needs to take a broader view of economic risk emanating from the financial sector and regulate banks to hold more capital to reduce the flow of credit into the economy, and increase the risk weights for housing, to reduce the regulatory lean towards mortgage lending relative to business lending.

12. Demographic demand

The bulk of the demand comes from predictable natural population growth and household size change. But the variability or the cycle in population growth tends to come from immigration patterns. Migration flows can turn rapidly, but

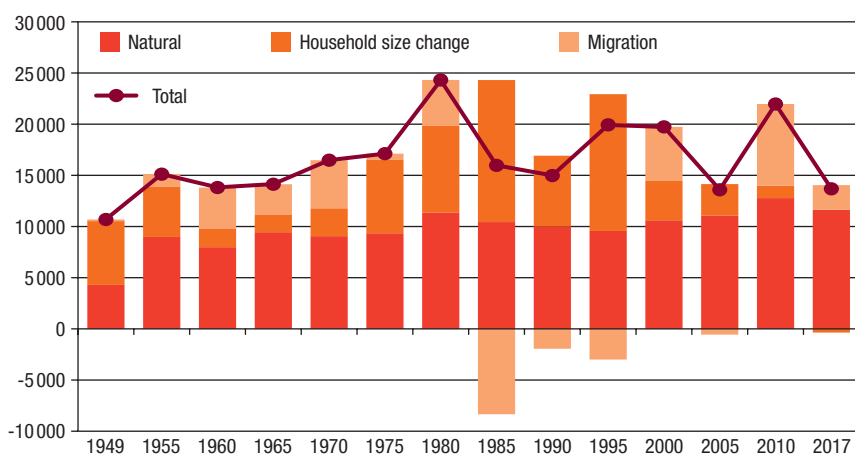**Figure 13   Debt and house prices relative to income**
% of income
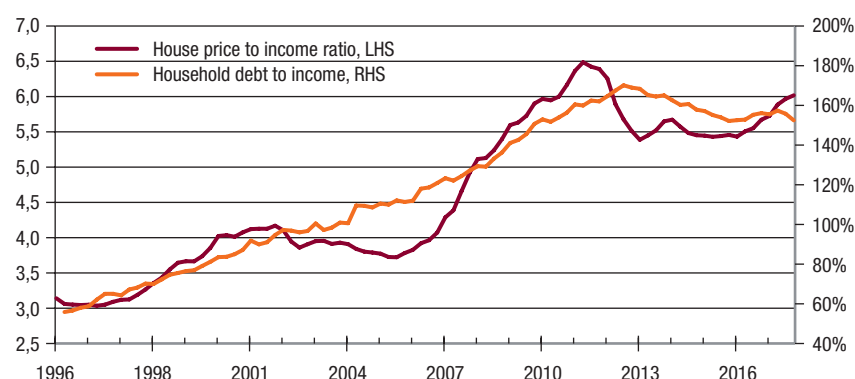
Source: Statistics NZ, RBNZ, QVNZ, NZIER.

Figure 14   Borrowing Capacity @ $100,000 Income
$000s
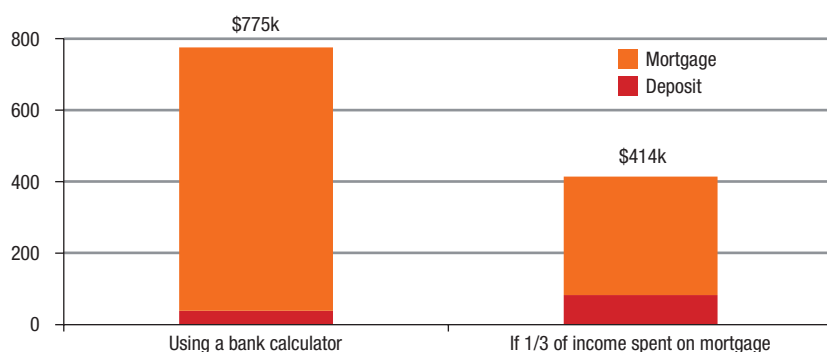
Source: NZIER.

Figure 15   Sources of housing demand growth
Number of dwelling per year between censuses

Source: Statistics New Zealand Year Books, NZIER.

land and housing supply tends to be slower – an area that requires policy action.

New Zealand is making a transition to a much older population. As it ages, the types of households are changing. Over the past decade there were around 14,000 additional households per year (there were 1.5 million households as at mid-2013). A third of that growth came from those living alone.

There are massive regional variations. In Auckland, the largest city and destination for migrants, only around 10% of the growth in households is from those living alone. In small provinces 100% of the increase is from those living alone.

Old rules of thumbs of how population growth will flow through to housing demand may be breaking down. In the small provinces where much of the demand growth is from living-alones; these are the same provinces that have loads of empty homes and in most cases excess 'bedroom capacity' or the number of bedrooms relative to the number of people.

In 1996, there was just under one bedroom for every person in New Zealand. To be exact, the utilisation rate was 102%. In 2013, there were 1.14 bedrooms for every person or an utilisation rate of 88%. Quite a bit of recent housing supply has been large houses with four or more bedrooms, but typically for small families, couples or singles.

Aggregate measures do not account for bedrooms or capacity in the 'wrong' places. There is increasing incidence of crowding (for example with multiple families sharing a house, or large families living in small houses). This is particularly prevalent in poor areas of urban centres, particularly in Auckland. Social housing is affected by the broader issues of the housing market, but it is too large a topic to fit into this paper. We acknowledge its importance and that we cannot do it justice in short order.

13. Investor demand

Housing is a popular investment choice. Nearly 75% of all household assets are in housing. There is little variety in financial investments. Another 15% is in bank deposits and the remainder splattered across equity, bond and other investments).

The focus on housing for investors has been for a number of reasons. Housing is easy to access and there is a perception of 'safety' and

tangibility. New Zealand does not have a Capital Gains Tax and bank financing is relatively easy. It is seen as a low risk, highly leveraged and untaxed investment option.

It is not surprising that investors are a large portion of the market. There are fears that foreign buyers are boosting the housing market, but we do not find convincing evidence of this.

13.1. Who is buying?

Investment properties are increasingly common, relative to family homes. The number of households grew by around 10,000 a year over the past decade. A third of them lived in their own home and the other two thirds in rented homes.

Some of the demand may be due to a 'bulge' of baby boomers in the market, creating excess demand for investment properties – they are likely to have bought these houses.

Transactions in the property market are dominated by investors and people moving to other homes. Investors account of 43% of annual transactions; followed by 27% moving to other places. Young buyers account for around 18% of purchases and other investors (including foreigners) account for the remaining 12%.

There is limited data on property investor characteristics. Nevertheless we observe that investors tend to employ a buy and hold strategy – consistent with retirement or long term investment motives. But they are accumulating more and more stock, making investors a large part of the transaction market. Owner occupiers conversely tend to turn over houses more often – consistent with moving up the property ladder and with changes in life circumstances.

There is a fear that foreign investors are pushing up house prices in New Zealand. New Zealand does not have restrictions on foreign purchases of assets, except for very large assets and those that are deemed nationally sensitive (for example airports), which require ministerial approval from the Overseas Investment Office. There is little official data as there are no legal requirements or restrictions.

Partial data suggest that fears of an influx of foreign investors are overdone. The most commonly described foreign investor is someone who has borrowed large chunks of money offshore and has bought a house in a posh suburb and left it empty. The data simply do not support these anecdotal observations.

The empty homes are not obvious in the data – indeed vacancy rates are not much lower than we would expect given economic circumstances. We also do not find evidence that the number of people buying houses without mortgages has changed much over time – based on an experimental dataset compiled from property transactions. Data supplied by CoreLogic, a property data expert, suggests that 6% – 8% of houses are being purchased with cash, which could include foreigner purchasers.

Instead the typical purchaser appears to be a New Zealander investor (or a multiple property owner) who is after capital gains.

13.2. Required capital gains

The New Zealand property market is largely driven by investors. The rental yields vary by region and investors' required rates of return can also vary. We illustrate this in a scenario table (Table 3). At the current national average gross rental yield of 4% and a required rate of return of 11%, we estimate that house purchasers are expecting capital gains of 8% per year in perpetuity.

In 2000-2007 house price inflation was similar to that level, with a more sedate pace in previ-

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Figure 16 **Composition of transactions by type of purchaser** % of transactions, 2014

- Young buyer — 18%
- Mover — 27%
- Multiple investor — 43%
- New entrant — 12%
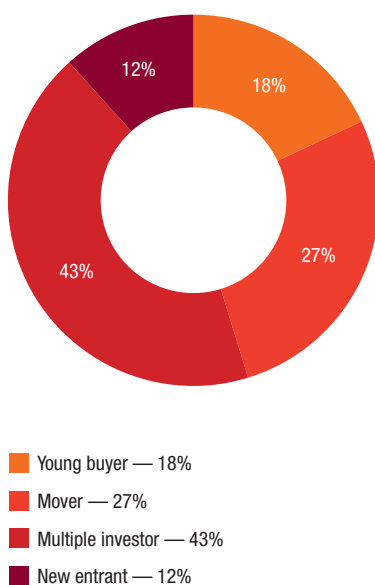
Source: CoreLogic.

Table 1 **Capital gains expectations based on gross rental yield and required rate of return** % increase in house prices per year in perpetuity

		Required rate of return[2]								
		7%	8%	9%	10%	11%	12%	13%	14%	15%
Gross rental yield[1]	0%	8%	9%	10%	11%	12%	13%	14%	15%	16%
	1%	7%	8%	9%	10%	11%	12%	13%	14%	15%
	2%	6%	7%	8%	9%	10%	11%	12%	13%	14%
	3%	5%	6%	7%	8%	9%	10%	11%	12%	13%
	4%	4%	5%	6%	7%	8%	9%	10%	11%	12%
	5%	3%	4%	5%	6%	7%	8%	9%	10%	11%
	6%	2%	3%	4%	5%	6%	7%	8%	9%	10%
	7%	1%	2%	3%	4%	5%	6%	7%	8%	9%
	8%	0%	1%	2%	3%	4%	5%	6%	7%	8%
	9%	-1%	0%	1%	2%	3%	4%	5%	6%	7%
	10%	-2%	-1%	0%	1%	2%	3%	4%	5%	6%

Source: NZIER.

Notes: [1] Gross rental yield = annual notional rent/average house price, does not include operation costs
[2] Investors' required rate of return or the cost of equity.

ous decades, once high and volatile inflation is accounted for.

60 years of reliable house price data show real house price inflation of 2%-4% a year. The inflation premium should be 2%-2.5% (the RBNZ's target mid-point – historical average since the inflation targeting regime came into effect). So, historical precedent suggests a reasonable expectation of capital gains (in nominal terms) is 4%-6.5% a year.

There is evidence that current house prices are embedding higher rates of capital gains

expectations (8% per year in perpetuity) than has been the experience over a long period of time (4%-6.5%pa).

Through the power of compounding, the difference between expectations of 4% or 8% capital gains per year are massive. At 8% a year capital gains, a $100,000 invested today would be $4.7 million in 50 years' time. At 4% return, it would be $711,000, or only 15% of the current amount an investor may be expecting. Embedded capital gains expectations in current house prices are unsustainable.

13.3. Saving through houses

Saving through house ownership is a commonly cited reason for home ownership. However, rental yields are too low now to cover outgoings like mortgage payments, local authority rates, insurance, etc.

Using conservative assumptions we estimate that households would be largely indifferent to saving through a house or in equities, except for the incidence of tax. Returns from equities are taxed, but housing is not, even when realised in most cases.

Current tax law already has the provision to tax gains from sales of houses purchased with intent to gain from capital gains. But this test is difficult to apply, as it requires judicial interpretation of how intent is defined.

In a very simple sense, if an investment property is purchased at a negative rental yield (after accounting for reasonable gearing, mortgage costs, rates, insurance, repairs, etc.) then the intent is clearly to benefit from capital gains. Using existing rules to collect taxes on investment properties would make investors indifferent between property and other types of investment.

13.4. Capital gains tax

New Zealand is unusual in the OECD for not having a capital gains tax [CGT]. We do not find compelling evidence that CGTs prevent housing booms. Australia has had a record housing boom and it has CGT.

The rationale for a CGT would be to create an even tax setting, by applying taxes on all transactions in the economy: labour (income tax); consumption (goods and services tax); profit (corporate tax); and investment (CGT).

In practice, a CGT often excludes the family home and is only applied to investment properties. New Zealand already has tax policy in place that in theory attracts taxes on investment properties. But the wording is vague and there is no judicial precedent on what qualifies as an investment property, what qualifies as intent to profit and on the basis of what test taxes would be applied.

New Zealand has the option to introduce a CGT or to develop and implement its existing tax policy more robustly. Both of these would help neutralise a tax advantage – perceived or real – relative to other forms of investment. This would be a marginal positive, but it would not 'solve' high house prices.

Figure 17 **Real house price inflation**
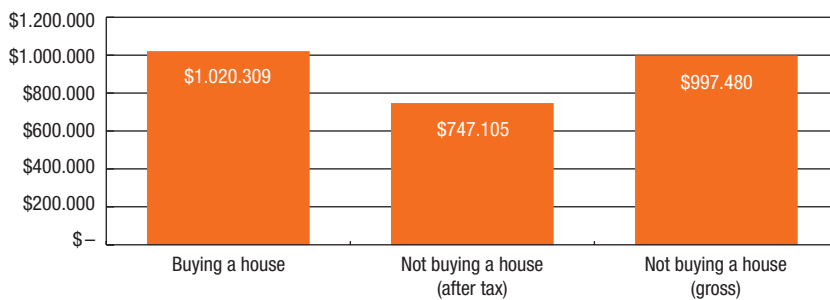Real house price change, %
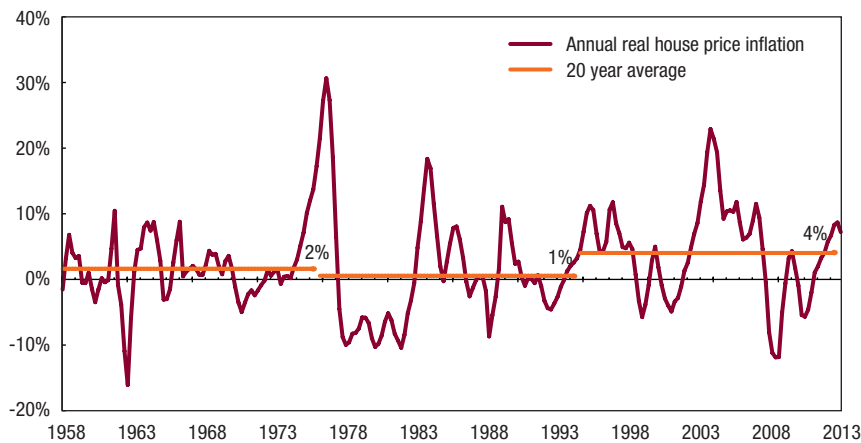
Source: QVNZ, RBNZ, Statistics NZ, NZIER.

Figure 18 **Real house price inflation over various time periods**
Real house price inflation per year, %
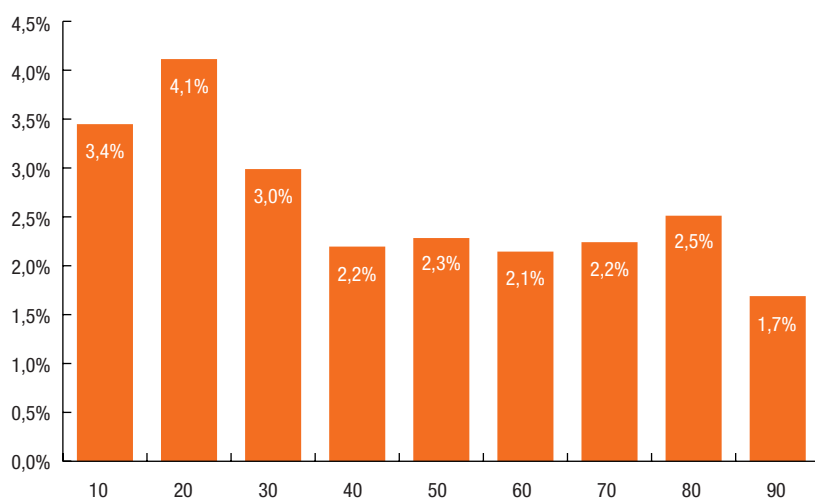
Source: RBNZ, QVNZ, Statistics NZ, NZIER.

Figure 19   Saving through housing versus equities
Equity position in 30 years' time

Source: NZIER, based on the following assumptions:

Purchase price	$ 500,000	Equity market return	4.5%	After tax forever
Deposit	$ 100,000	House price inflation	4.5%	Per year forever
Debt	$ 400,000	Deposit share	20%	of house price
		Mortgage term	30	Years
		Interest rate	7.5%	Over life of mortgage
		Gross rental yield	4.5%	Of house price
		Rates, insurance, maintenance	1.5%	Of house price

Table 2   Expected capital gains implicit in current sale prices
% pa in perpetuity

Expected capital gains	City	Franklin	Manukau	North Shore	Papakura	Rodney	Waitakare
Ungeared 1	9%	7%	8%	9%	7%	8%	8%
Geared 2	10%	9%	9%	10%	8%	10%	9%
Last 20 years	8%	7%	7%	7%	6%	7%	7%

Source: NZIER

Notes : [1] If based on zero gearing and cost of equity.
[2] If based on 30% gearing and 11% cost of equity.

14. Policy options

The housing story in New Zealand is complex and interlocking. There are no easy solutions. Rather, we find a number of issues that require a set of complementary policies.

Rental contracts should offer a better balance between owners and renters. There are good examples of tenure and tenants' rights in the UK, Germany and Switzerland.

Land supply rules (greenfield and intensification) should be more responsive to demand. The new supply can be greenfield, more infilling or building higher. Appropriate infrastructure investments (roads and/or public transport) for smooth application of urban design choices are critical.

Banking regulation needs to reverse a bias towards any one asset class. The RBNZ has the tools to do so, under its banking supervision mandate, as well as through its macro-prudential mandate.

Tax rules need to be applied evenly to tax gains from properties purchased for capital gains. New Zealand already has taxes that apply to investment properties, but the judicial precedent is unclear. Clarifying the tax position through the judiciary or through regulation will reduce the actual and perceived tax benefit of property investment.

Market monitoring is necessary to ensure evidence-based policy making. There is little data available on the types of purchasers. Experimental title transactions data suggests

that much of the turnover in the housing market is driven by investors and movers. First home buyers and new entrants are at the margin, but can be volatile. There should be closer analysis and monitoring to ensure any policy is based on robust evidence and not emotion.

- **Appendix: Embedded capital gains expectations**

- **Dividend discount model [DDM]**

The DDM simply states that the price of an asset (P) is the expected dividend (D) in the first year divided by the difference between cost of capital (r) and expected growth (g).

$$P = Dr - g$$

The DDM can be rearranged to show:
$$DP = r - g \quad \text{or} \quad g = r - DP$$

- **What we assume**

From NZIER's analysis of realised returns the cost of equity for households is around 11%. Because investments should be assessed over their life, we use a fixed rather than variable cost of capital in this context.

It is possible to also calculate a geared scenario, which requires a small adjustment to the yield calculation as well as the cost of capital. We consider this at the long term average mortgage rate of 7.5%, rather than the current historically low level of less than 6% as at January 2014.

We suggest using the ungeared estimates, as most households expect to pay off their mortgages, rather than retain some rate of 'terminal' or 'equilibrium' gearing in perpetuity (as businesses tend to do).

We assume home ownership has costs of 1% of property value per annum, accounting for rates, insurance and maintenance.

- **Results for Auckland**

We find that current house prices effectively embed expectations of 7%-11% pa growth forever. The experience of the last two decades has been captured in current prices.

References

Kelly, J-F., Hunter, J., Harrison, C., Donegan, P., 2013, Renovating Housing Policy, Grattan Institute, Melbourne.

Lees, K., 2014, Big city life? Challenges and trade-offs for Auckland city, NZIER Public Discussion Paper 2014/02.

Germany's rental property sector:
# A cornerstone of housing market resilience?

↳ **By Dr. Oliver Lerbs**

1. Introduction

The recent housing crises in several advanced economies have shown that a strong bias of national housing systems towards owner-occupation can create threats to the financial health both of individuals and the economy at large. Germany belongs to the few high-income countries that have witnessed housing market stability over the last 20 years. This kind of stability can be interpreted as an indication of resilience to external shocks, and it is commonly associated with conservative mortgage lending standards for owner-occupied housing. The fair balance between owner-occupied and rental property is another key ingredient in the formula for the stability of Germany's housing market. Germany is characterized by a housing rental rate of more than 50%, a highly diversified ownership structure of rental dwellings, and low institutional barriers to entry into the rental property sector for private investors. Against the background of the German experience, it may be worthwhile for economists, politicians and real estate finance professionals alike to think about strengthening the rental property sector (and also hybrid forms, such as co-operative housing) as an effective alternative to home ownership.

Germany is often referred to as a "tenants' nation". The size and economic importance of the German market for rental property (which can broadly be defined as the stock of residential real estate not occupied by owners) indeed differs substantially from rental housing markets in other advanced economies. According to data from the 2011 German Census, rental property encompasses about 23 million units, which

Figure 1   Housing rental rate (public and private) in selected OECD countries (most recent available data)
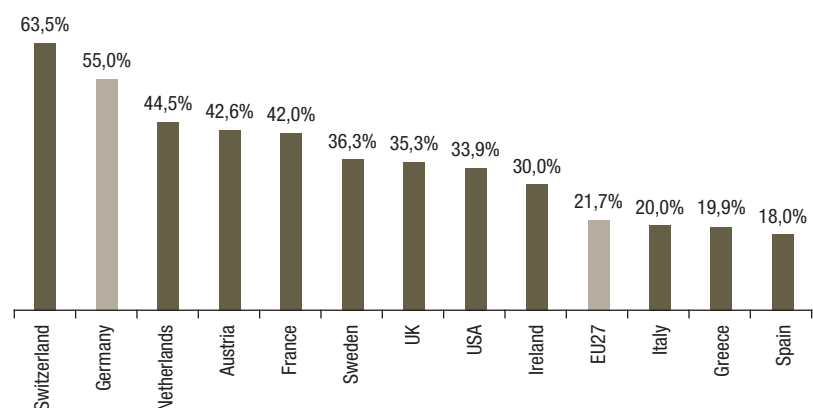
Source: European Mortgage Federation 2013, German 2011 Census, Swiss Federal Statistical Office, own calculations.

renders Germany's rental housing sector by far Europe's largest. The nationwide housing rental rate (defined as the share of inhabited dwellings not owner-occupied) has a level of 55% (Federal Statistical Office 2014). This is more than double the EU average (see Figure 1).[1] On the supply side, a main characteristic of the market is a well-balanced ownership structure. Rental housing in Germany is provided by for-profit housing companies, communal and semi-public organizations and housing co-operatives, as well as so-called private "amateur landlords". The latter group, which has an estimated market share of about 60% using rented housing units as the reference, contains private households who manage usually less than ten units. For most amateur landlords,

managing rental property is used as a long-term conduit for private retirement provision. On the demand side, Germany's tenant population is very diverse with respect to its demographic and socio-economic composition. This shows that rental housing is broadly accepted as a viable form of tenure.

The present article aims at sketching the main structural characteristics of the German market for rental property, as well as current trends in rental housing policy. It discusses both supply-and demand-oriented determinants that contribute to Germany's high housing rental rate. The article starts with a review of some specific historical circumstances that certainly favored the evolution of a broad rental property market.

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[1] Metropolitan areas are particularly dominated by rental property: The housing rental rate in Berlin is 84%, while Hamburg and Munich report rates of 76% and 75%, respectively.

2. The role of history

Despite the importance of other determinants[2], many specific features of Germany's market for rental housing and the "culture of renting" have their origins in the country's political and economic history since the era of industrialization, which started around the second half of the 19th century. The first wave of industrialization of the German economy, roughly lasting until the outbreak of World War I, was accompanied by a rapid pace of urbanization. Large stocks of multi-family tenement houses were built in larger metropolitan areas, serving to house the quickly increasing population of industry workers during this period. Huge industrial companies such as Krupp or Siemens built entire city quarters on their own accounts to house their employees. The strong reliance on tenement houses[3] reflected the social aims and visions of German city planners and politicians. These aims and visions differed to a certain degree from urban developers in other, simultaneously industrializing economies, such as Great Britain or the Netherlands. Since housing was inseparable from urban traffic infrastructure, German city planners also tried to keep distances between residences and work places to a minimum. As major modes of inner-urban traffic, German cities typically relied on extensive but slow and space-consuming tram systems or simply walking. While the very first metro line in London opened in 1863, the German capital city of Berlin did not introduce its metro system (the first in Germany) until forty years later. Empirical studies show that high-density multi-family housing remains an important pillar of the rental housing market in most German metropolitan areas until today (Lerbs and Oberst 2014).

A second influential pillar of the German market for rental housing was the design of housing policy during the first twenty years of the Cold War Era. A substantial proportion of the German housing stock (about 4.75 million units according to Peters, 1984) had been destroyed or severely damaged by allied bombing during the Second World War. Until the 1960's, post-war governments in both parts of the divided country were confronted with the difficult task of resolving an acute housing shortage, which was worsened by the large number of displaced persons. In West Germany, the First Residential Building Act ("Erstes Wohnungsbaugesetz") of 1950 de facto established a public housing control system. At the expense of alternative types of capital investment in the economy, the control system heavily promoted public and publicly subsidized rental housing (re)construction. The major part of rental housing construction activity was carried by non-profit housing companies. These agents fell under the legislation of the Law on Common Public Interest on Housing, which had already been in place since 1940. The core feature of the law had been exemptions from business taxes, corporate taxes and wealth taxes for companies that acted under the public mandate of constructing mass-produced rental housing for broad population classes. However, the successively introduced building programs were not limited to direct public or quasi-public housing investment. Instead, grants were available to private investors as well, stimulating additional multiplier effects. The system worked effectively, as more than 50% of all newly constructed housing units each year were built with the help of public grants until 1959 (Blumenroth, 1973).[4]

Despite its inefficiencies, the control system stayed in place with slight changes until 1960. In that year, the West German government passed the "Act on the Cutback of Housing Control and on Socially-oriented Rent and Housing Legislation" ("Gesetz über den Abbau der Wohnungszwangswirtschaft und über ein soziales Miet- und Wohnrecht")[5]. The new legislation ruled out rent controls in regions where the acute shortage had already been settled. After a certain period, rent-regulated housing units would enter the free market, such that rents could be aligned to market levels. At the same time, the legislation established comprehensive tenant protection laws in the Code of Civil Law, including rules governing protection against eviction by landlords. Additionally, the so-called "Wohngeld", a direct housing subsidy to low-income households, was introduced (the subsidy is still in place today). The new legislation ensured that the market for rental housing was now governed by the principles of Western Germany's system of a social market economy: it set overarching rules of law and order, but also relied strongly on the core principles of open markets, free price formation, and freedom of contract. While the rents of existing rental contracts remained regulated, the free formation of prices for new and newly-let apartments provided the fundament of a stable inflow of private capital into rental property, which turned out to be a major cornerstone for the development of today's viable rental housing market.

Albeit with different objectives and design, housing policy in the German Democratic Republic contributed to the emergence of today's deep rental housing market in its own way. In order to deal with recurring housing shortages after the war and also in later periods, the socialist East German government strongly promoted the construction of rental housing in prefabricated slab buildings, the so-called "Plattenbau". Newly constructed buildings were usually multi-family units containing more than 10, sometimes more than 100 flats. Despite large-scale demolition of excess slab-rise housing in recent years, the share of residential buildings with ten flats or more in eastern Germany still strongly exceeds the respective share in western Germany. The new buildings were typically erected at the urban fringe, which led to a gradual erosion of inner-city neighborhoods characterized by older buildings. At the same time, housing rents were regulated to remain at their 1935 levels. This caused an almost complete curtailing of private housing investment and replaced private allocation of housing by public allocation.

German reunification in 1990 involved the transformation of the East German housing system towards a market-based economy, which was reached by large-scale transfers of predominantly state-owned multi-family buildings to communal housing companies and housing co-operatives. While not being conducive to the promotion of home ownership among East German households, this policy set the stage for co-ordinated and publicly subsidized (dis-) investments in slab-rise multifamily houses that were economically obsolete in many cases. The German approach of transforming the socialist housing system substantially differed from most other post-communist economies, which saw large amounts of public rental housing stocks directly privatized to their inhabitants. As a result, today's ownership structure of East German rental housing stocks is comparatively concentrated, as 25% of eastern German housing units are located in a building owned by a

[2] The prevalence of different forms of housing tenure in a country results from a complex interplay of demographic, socio-economic, institutional and political factors (Hubert, 2008).

[3] Lower-density forms of multi-family housing, most notably the popular terraced home, are more conducive to home ownership (Glaeser 2011).

[4] The second Wohnungsbaugesetz, passed in 1956, extended the program to owner-occupied housing, but the major part of investments remained in the rental sector.

[5] The legislation has been associated with the term "Lücke-Plan", named after Paul Lücke, who served as the German Secretary for Housing from 1957 to 1965 during the era of Chancellor Konrad Adenauer.

communal housing company or a housing co-operative. In some metropolitan areas, this share reaches more than 50% (Federal Statistical Office 2014).

In the course of reunification, the Law on Common Public Interest on Housing was officially abolished in 1990. This eroded the legal differentiation between "free" and non-profit housing companies. For the large share of housing cooperatives, the new legal concept of the tax-privileged self-help organization was introduced. The new concept has narrowed the tax-privileged activities of housing co-operatives. Yet, these influential institutional actors are still tax-exempt from business as well as corporate taxes under certain conditions.

3. Current market size and structure

3.1. Size and ownership structures of rental housing

As an integral part of the 2011 German Census, the Count of Dwellings and Housing Units (Wohnungs- und Gebäudezählung, GWZ), provides a current and nationwide statistical coverage of all residential buildings and housing units. For the first time since reunification, the results of the GWZ provide reliable and detailed data on the size, structure and regional distribution of the entire German housing stock (Federal Statistical Office 2014).[6] As information on dwelling owners and the type of dwelling use was recorded along with many other data, the GWZ includes detailed information on the supply and demand for rental housing units.
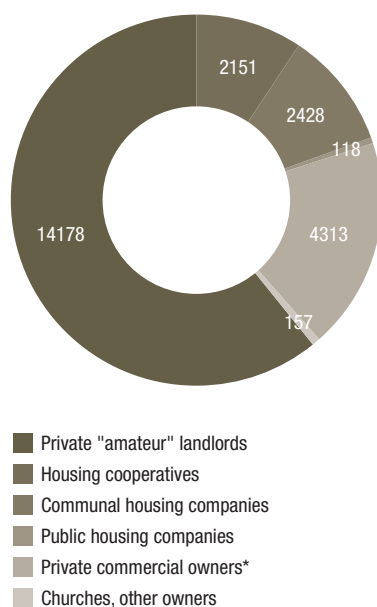
The GWZ counted a total of about 41.3 million housing units, which corresponds to 0.5 units per inhabitant. After subtracting vacant dwellings and units serving recreational purposes, one arrives at 39 million inhabited units, of which 21.5 million (a share of 55%) were rented. As a high proportion of the 1.85 million units classified as vacant by the Census can also be assigned to the market for rental housing, the total market size is about 23 million dwellings. The age distribution and dwelling conditions of the rental housing stock are closely related to the historical development of the market. According to GWZ information, 61.1% of all buildings comprising rental apartments were constructed during 1949-1990, while only 4.4% were built more recently (since 2001). On national average, the

living space and number of rooms in currently inhabited rental dwellings is 70 square meters and 2.7 rooms, respectively, compared to 122 square meters and 4.4 rooms in owner-occupied dwellings. Significant differences in the living space available also exist between eastern and western Germany: West German tenants inhabit about 12.5 m² more living space on average than East German tenants. This gap mainly reflects the different composition of the stock, as smaller flats are strongly overrepresented in (large) multi-family houses. About two thirds of rental housing units are endowed with central heating, while other forms of heating are less common. The vast majority of rental housing units are endowed with both a toilet and bathtub or shower. Units lacking sanitary accessories are often subject to demolition or modernization (Federal Statistical Office 2014).

Regarding ownership structures, about 9.2 million rental housing units are owned by institutional investors, whereas 14.2 million are owned by so-called "amateur", i.e. non-incorporated,

Figure 2 **Ownership structure of the German rental housing sector**
(1000's of units)

- ■ Private "amateur" landlords
- ■ Housing cooperatives
- ■ Communal housing companies
- ■ Public housing companies
- ■ Private commercial owners*
- ■ Churches, other owners

Source: GdW (2012).

* Private housing companies, financial institutions, insurance companies, property funds, other corporations.

private landlords (GdW 2012, see Figure 2). The huge nationwide market share of amateur landlords indicates that the rental housing sector is generally contestable and competitive. Among institutional investors, a dominant role is taken by housing co-operatives, communal housing companies and private companies, which together manage nearly 80% of the stock owned by this group of investors. Even the largest institutional players in the German rental sector are small relative to the entire stock. The top ten professional housing companies, holding large portfolios of several thousand rental apartments in different cities, currently own a total of 1.1 million units. This equals about five per cent of the whole rental housing stock. As a trend, the housing stock of the ten biggest companies has risen by 18% through mergers and acquisitions since 2011 (AB|BC 2014), indicating an ongoing trend of consolidation in the market for professional rental housing. Five of the top ten rental housing companies were publicly listed in 2013, while four are predominantly or fully owned by the public sector.

Considerable differences in financing structures can be identified between institutional housing suppliers and small private landlords (Westerheide 2011). As a rule, the rental housing stock held by the group of amateur landlords is financed similarly to owner occupied housing. The main financing vehicles of this asset class are mortgages with low loan-to-value ratios (with down payments usually 20-30% or higher), long-term fixed interest rates (typically 5-10 years) and long amortization periods (up to 30 years). Although mortgage interest is tax deductible from income generated by rental housing, the leverage of private landlords is typically not very different from owner-occupiers. The German income tax code allows settling book losses from rental housing provision against other earnings to a certain extent. However, according to a survey among private landlords conducted by the Technical University of Dresden in 2005, the dominant motive for investment in rental housing was retirement provision, as residential real estate was seen as a safe long-term investment. Many private landlords rent out in-law apartments or "granny flats" located in the same building as their owner-occupied home, enabling them to closely monitor their investments and reduce investment risks. Professional rental property companies are somewhat heterogeneous regarding their financing structures. Small and medium-sized housing enterprises – especially

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[6] The housing stock registered by the GWZ will also yield the new basis for future updates of housing stock statistics.
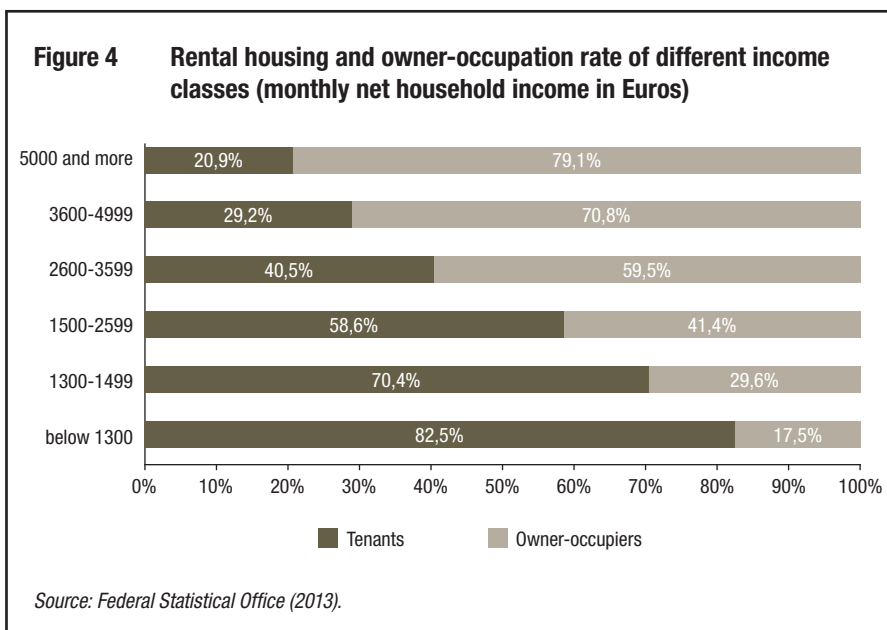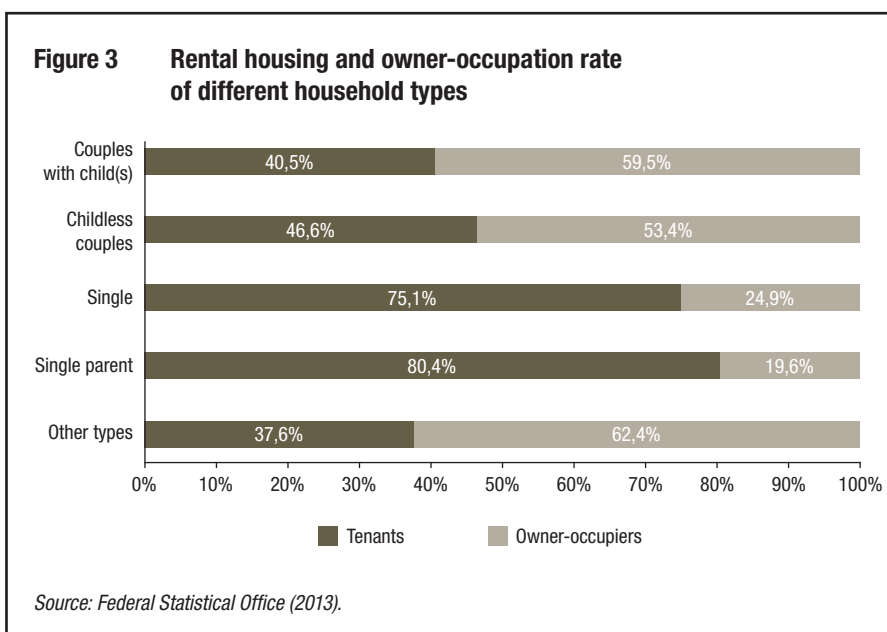
housing co-operatives, which are financed directly by their members and are usually exempt from corporate and business taxes – are characterized by high equity ratios. Large and publicly listed housing companies, which are not taxed differently from non-housing for-profit companies, are characterized by high debt ratios and also by holding a considerable level of short term debt (Kröncke et al. 2011).

3.2. Socio-economic characteristics of tenant households

Private households demand rental housing services depending on their permanent income, the local cost of renting relative to the cost of owning, their preferences, and the level of other prices in the economy. Due to capital constraints and differences in preferences, tenant households are typically assumed to be smaller, younger, lower-income and less wealthy than homeowners (Hubert 2008). Because of supply constraints, they also typically occupy less living space per person.

The following statistical facts, calculated from the 2013 EVS wave[7], widely confirm these propositions for German households: among single-person households, 75% rent their housing units. Among single parents, the proportion of tenants is even higher (80%). Among couples with no children, owning and renting roughly balance each other. Among other household types, owner-occupation clearly predominates over renting (see Figure 3). The housing rental rate also steadily decreases as the number of persons in the household increases, from three quarters among one person households to 27% among households with five persons or more. Regarding the age of household heads, a similar pattern is present, although the distribution is somewhat more flat and bumpy between different age classes: the housing rental rate among households with heads between 18-25 years is close to 100% and steadily decreases to 46.3% among the 55-65 year olds, slightly increasing again to 50.2% among the 65-70 and 55.6 among the over 80 year olds.

Rental housing is the standard option for households in the lower income classes and also for the unemployed (see Figure 4). However, it is also widespread among economically more prosperous households in middle and moderately-high income groups. Among households with house-

| Figure 3 | Rental housing and owner-occupation rate of different household types |

Source: Federal Statistical Office (2013).

| Figure 4 | Rental housing and owner-occupation rate of different income classes (monthly net household income in Euros) |

Source: Federal Statistical Office (2013).

hold heads who are self-employed or in the civil service, the housing rental rate still reaches 43%. The lowest rental housing rate is observed among the group of civil service retirees with close to 30%.

According to the latest extra survey on housing of the German Mikrozensus (conducted in 2010), German tenant households spend 22.5% of their net income on average for gross rent, which excludes expenses for heating

(Federal Statistical Office 2012). 16.2% spend more than 40% of their income on housing. Among single households, the corresponding proportion is significantly higher (25%). The average gross rent paid per month among all households is 440€, which corresponds to an average gross rent of 6.37€/m². Single households spend 370€ (6,44€/m²) on average, while households with 3 persons spend 537 € (6,32€/m²) and those with 5 persons or more 633€ (6,19€/m²), indicating considerable economies

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[7] Various statistical sources are available to assess the socio-economic composition of tenant households in Germany. The most relevant surveys in this context are the quinquennial survey on income and consumption ("Einkommens- und Verbrauchsstichprobe", EVS) and the quadrennial extra survey on housing of the German Mikrozensus, which both collect informa-

tion about residential property, housing services consumption and dwelling conditions of a random sample of private households and are conducted by the Federal Statistical Office. Another household survey covering housing conditions is the German Socioeconomic Panel (G-SOEP), managed by the German Institute for Economic Research (DIW).

of scale in renting housing services. According to the 2013 EVS wave, almost 80% of German tenants live in buildings with 3 or more flats (Federal Statistical Office 2013).

Representative surveys on the assets and liabilities of German households show that tenants are less wealthy than homeowners in almost any age group (German Bundesbank 2013). While the average net wealth of German tenant households is 47,800 €, outright home owners have a ten times higher average net wealth, the average net wealth of homeowners with mortgages is still about five times higher. While these averages do not or only incompletely control for income, educational or age differences between owners and tenants and also to some extent simply reflect self-selection of wealthier households into owner-occupation, they indicate that, against the background of a well-functioning rental market and an adequate social security system, acquiring owner-occupied housing for retirement provision appears less problematic for a broad share of the German population. Through renting, households implicitly acquire the option of low-cost moves in case of job changes or other important reasons for relocation (while tenants have to incur a maximum of three monthly rental payments due to the notice period in addition to physical moving costs, owners typically have to incur selling costs that amount up to 5-10% of home values). Furthermore, renting prevents household from concentrating price risk in one single asset, most notably in demographically shrinking regions.

4. Regulation and determination of rents

The high proportion of rental housing in Germany lends substantial importance to the regulation and determination of rents. Under German law, residential tenancy agreements are ruled by the law of obligation. The German Civil Code contains numerous mandatory regulations governing rental tenancy agreements. In addition to standards regarding the determination of rent at the start of the contract and the adjustment of rent during contract duration, these regulations encompass, among others, special provisions for protection from termination in favor of tenants, as well as restrictions on the amount of rent deposits, repair works and apportionments of operating costs (Usinger 2012).

It is generally appropriate to distinguish between new and in-place leases in this context, since the determination of both follows different judicial and economic rules. An important legal concept with respect to the regulation of rents for both new and existing leases is the Comparable Rent Usual in the Locality ("Ortsübliche Vergleichsmiete"), which is concretized in the German Civil Code. The Comparable Rent serves as a constraint in the price determination of rents associated with both new and existing leases, albeit with different severity. It is determined by a local rent index, which is calculated on the basis of the average rent from new leases or leases with rents agreed within the last four years. The Comparable Rent is typically differentiated by type, size, condition and quality (including features related to energy use), as well as the location of the building. Publicly subsidized rental housing is generally not included in the calculation of the local rent index.

With legal price caps prohibiting "excessive" and "exorbitant" rents as exceptions (using the comparable rent as reference), rents paid under new leases for non-public housing are currently still subject to free negotiation. However, the German government envisages the introduction of a considerably more binding price cap on new lease rents in 2015. Rents on new leases in publicly subsidized housing are capped by regulation at the construction costs of the dwelling. The qualifying requirement in this case is that the construction or purchase of the dwelling was subsidized by the public purse and is dedicated to particular target groups, such as low-income households or disabled individuals. Rent control for existing leases is much stronger. During the term of the contract, rent must not be raised by more than 20% within three years. Furthermore, it must not be raised above the Comparable Rent for the locality. As an alternative to sudden rent adjustments during the term of the lease, landlords and tenants often agree upon automatic, usually annual rent increases as to accommodate general inflation. In case of refurbishments for energy saving, the current regulatory regime allows landlords to pass on 11% of the refurbishment costs annually to tenants with pre- existing leases. This regulatory limitation can render energy saving refurbishments unprofitable in strong housing markets (where refurbishment cycles are shorter and the regulatory restriction becomes more binding) as well as in newer buildings (Henger and Voigtländer 2011).

A growing number of academic studies have recently investigated price-setting processes in the German rental property market. Most of these studies use the hedonic pricing approach, regressing rents by dwelling characteristics, housing market conditions and various location characteristics. For example, Weiß (2008),

controlling for population and household purchasing power, finds that city-level rents are partly driven by a city's attractiveness for tourists, which he interprets as evidence in favor of the capitalization of quality-of-life enhancing non-market amenities in housing rents. He also finds an unexplained positive rent residual in East German cities, indicating an after-location quality rent premium for East German locations. In a more recent study, Hiller and Lerbs (2014) show that, along with population density and the share of student housing, rents for new leases are affected by local climate, industry emissions, traffic accessibility, art and entertainment offerings, and crime. Using object-level data for Berlin, Kholodilin and Mense (2012) report significant rent premia for fitted kitchens, cellars, parking lots and the possibility of garden use, apartments in smaller rental buildings, as well as certain apartment types such as lofts, maisonettes and penthouses. Since the above-mentioned studies generally use rent listings (e.g., from internet platforms), the results refer to the price-setting process of new leases, while less is known about the pricing of rents in existing contracts. As an exception, Bischoff and Maennig (2011) show that longer tenant duration in rental dwellings results in relative discounts and/or relatively smaller increases in existing rents. Discounts prove to be significantly larger for dwellings with leases from private amateur landlords than in apartments leased by private and public housing associations.

5. Regional disparities

According to Census 2011 and other official data, the rental housing market is characterized by substantial regional variation in important market indicators such as the share of rental housing, housing rents, and vacancies. Figures 5-7 illustrate the geographic distribution of the housing rental rate, typical market rents for newly-let apartments and housing vacancies at the level of counties and cities (NUTS-3-level) for the years 2011 and 2012, respectively. As shown by the different maps, "landlord markets" with high local rents and very low vacancy rates coexist with "tenant markets", characterized by low local rents and housing oversupply, indicated by high levels of vacancy. A deeper analysis of vacancy rates reveals a clustering of vacant units in older buildings and slab-rise houses in eastern German cities (see Table 1). As a peculiarity, small-and medium-sized German university towns are often characterized by a high level of single-room rental apartments, reflecting the increased importance of student housing.

Figure 5	Rental housing rate at NUTS3-level
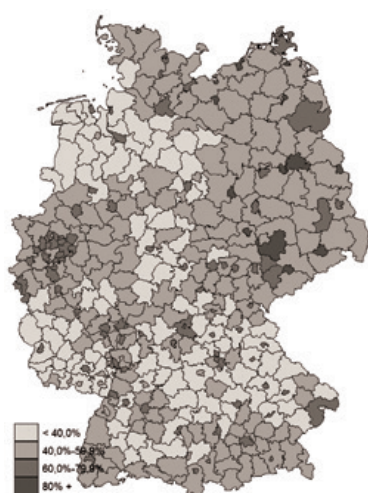
Source: Census 2011, own illustration.

Figure 6	Median rent (€/m²mt) at NUTS3-level
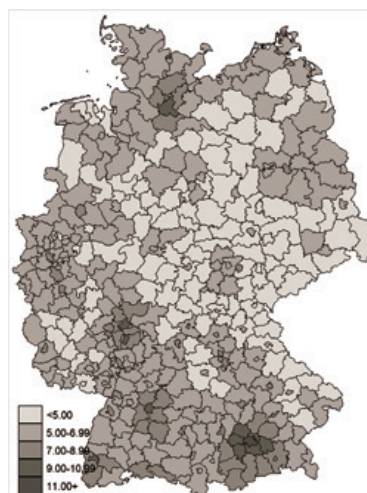
Source: BBSR, own illustration.

Figure 7	Housing vacancy rate at NUTS3-level
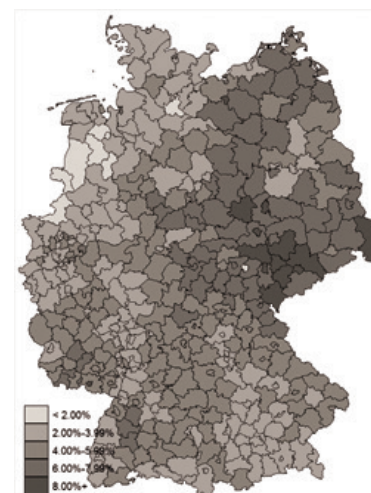
Source: Census 2011, own illustration.

6. Current trends in rental housing policy

The new German government coalition has recently been working on a "package for affordable building and living", which can be described as a bundle of discrete, short-term measures aimed at keeping housing costs down for low and medium income tenants. The most prominent measure is the envisaged introduction of a price cap on rents in new leases in local housing markets experiencing significant average rent increases. In the future, rents negotiated in new leases shall not exceed the Comparable Rent in the locality by more than 10%. Further measures discussed include a rise in public expenditure for social housing, a rise in direct housing subsidies to low-income households, and new legislation covering the practice of real estate agents.

While a conclusive judgment of these measures goes beyond the scope of this article, their main upsides and downsides can be described as follows. A generally positive aspect of the package is its regional differentiation. The package aims to acknowledge spatial differences in market developments and seeks to mitigate acute price developments in high-cost metropolitan housing markets. Yet, the high level of heterogeneity in how the individual measures are motivated and the question of how they may actually be implemented involve two main risks. Firstly, in expectation of future price caps, there is a strong risk of a significant increase in rents for new leases before the price cap is introduced. Secondly, there

Table 1	Associations between housing vacancy and age of building in West and East Germany

	Total vacant housing units		of which in buildings constructed							
			prior to 1950		1950-1969		1970-1989		after 1990	
	Mio.	*%*	*Mio.*	*%*	*Mio.*	*%*	*Mio.*	*%*	*Mio.*	*%*
West German territorial states	1.094	100	0.342	31.2	0.392	35.8	0.248	22.7	0.112	10.3
East German territorial states	0.536	100	0.270	50.3	0.072	13.4	0.149	27.9	0.045	8.4
City states	0.089	100	0.040	44.4	0.022	24.8	0.021	23.5	0.007	7.3

Source: Federal Statistical Office (2014).

is a risk of high administrative costs due to overlapping responsibilities and vague legal concepts. Some of the measures require strong local expertise, while others could probably be implemented at the state level (partly also following from legal restrictions). Defining the group of cities that fall under the rent price cap requires the use of reliable and timely indicators that are also likely to evolve dynamically over time. Together with the limit on growth of future earnings, the expectation of steady changes in the group of cities that are associated with a price cap is likely to generate an increase in rental housing cap rates, which in turn reduces the economic incentives to invest in additional housing relative to other forms of capital accumulation in the economy.

7. Concluding remarks

The markets for rental and owner-occupied housing behave comparably to the principle of communicating vessels: they are directly linked to each other, and every backlog in demand for one form of housing tenure is absorbed by the other. As households' housing needs change continuously during their life cycle, in an ideal world households would set up flexible and risk-less contractual arrangements that best reflect their current living situation in any point in time. In the real world, market imperfections such as the indivisibility of housing services, incomplete credit and insurance contracts, cognitive biases, as well as high transaction costs and regulation cause households (and also builders and

lenders) to incur important risks in the housing market. These risks have to be carefully handled by society, and one important form of insurance against some of these risks is a deep and liquid market for rental housing services. The recent housing crises have shown that the intensity of housing-related risks becomes exaggerated when the absorptive capacity of one of the two communicating vessels is "blocked", be it by overregulation of rental or by excessive promotion of owner occupied housing. The German experience suggests that depth and liquidity in the rental housing sector are closely related to market contestability and competition (resulting in diversity in ownership structures of rental property), freedom of contract (including the free price-setting for rents), and the possibility for landlords to protect their equity against misuse. Yet, the lessons of history suggest that there are certain limitations to transferring the German system of rental housing to other countries.

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The German housing finance system:
## does it offer lessons in stability to other markets?

↳ **By Mark Weinrich**

Ailing real estate markets – in particular in the United States – not only had local impacts on the economy and welfare in particular countries but almost brought down the world financial system, causing the worst recession in 80 years. There is currently concern in other countries such as China and the UK that they may be experiencing a real estate bubble that could pop, knocking out not only national growth but undermining the world economy. It is therefore no surprise that politicians and central bankers pay particular attention to real estate markets and their fluctuations.

The German real estate market is characterised by its remarkable stability. The OECD has examined the volatility of prices in the housing market in all its member countries for the period from 1970 to 2012 (Figure 1). Germany has by far the lowest price fluctuations. The low volatility in real property prices is also reflected by the smooth slope of the development of nominal property prices (Figure 2). Therefore, the German real estate market has become a focal point of interest for international decision-makers: What are the "ingredients" of the German stability? Is it possible to replicate them? Besides: Can the German system really serve as a model, since the rate of home ownership is relatively low with 45.7%?

Oliver Lerbs has already pointed out the considerable importance of history for the specific character of the real estate market in his article. Evidently, the "historical determinant" will not allow for a full copy of the German model as every country is subject to a certain historical "path dependency"[1]. The "historical determinant" also gives a reason for the relatively

Figure 1   Standard deviation of real house prices in the period 1970 to 2012
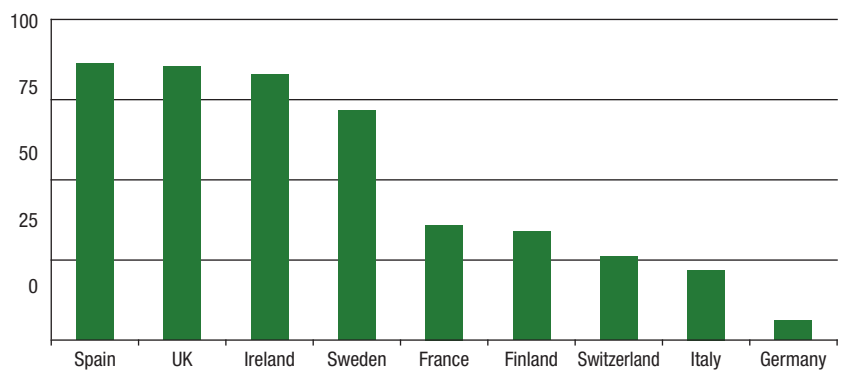
Source: BIS/ OECD/ BVR Volkswirtschaft special 1/2013.

Figure 2   Nominal residential property prices for selected countries

Germany
United States
Netherlands
Great Britain
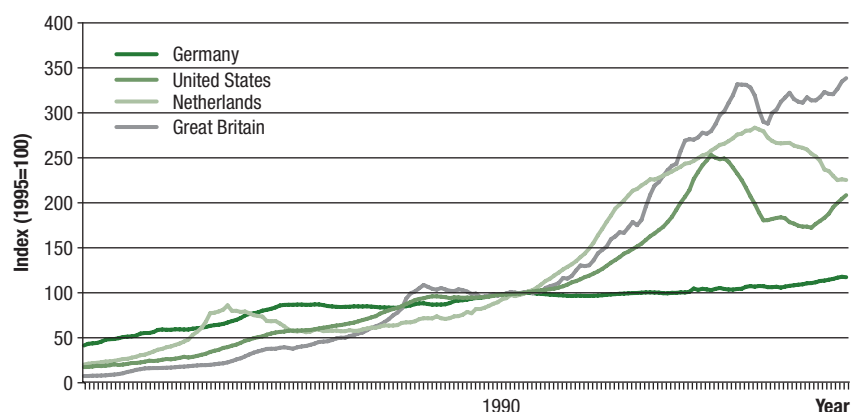
Source: BIS (data).

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[1] Path dependency is a concept used in economics and the social sciences. It basically states that "history matters". In economics it means that the nature of any equilibrium achieved depends partly on the process of getting there. The outcome of a path dependent process will often not converge towards a unique equilibrium but instead reach one of several equilibria.

low homeownership rate in Germany, which – as will be explained in the further course of the article – is not due to inefficiencies in the German model, but is mostly due to the course of history. However, it is still possible to identify the "Ingredients" of the German stability. Other countries could implement them at least to a certain extent but the speed and success of the measures will depend on the particular policy context.

It is possible to name three "ingredients" that contribute significantly to the stability of the German real estate market:

• An almost equal share of owner-occupied and rental housing

• A stability-oriented and conservative housing finance system

• A housing policy that minimizes distortive effects on the market

Fair balance between owner-occupied and rental property: Oliver Lerbs's article in this issue has already provided an excellent elaboration of the structure of the German rental housing market and of the interdependence between home ownership and rental housing markets. The relatively large size of the rental housing market in Germany (and the relatively low rate of home ownership) is mainly due to historical reasons as Oliver Lerbs has already emphasised in his article. An important factor was the Second World War, in which a lot of capital, including of course residential property, was destroyed. This explains also the age profile of the German dwelling stock with a majority of houses being constructed in the time period 1946-1970 (first column in figure 3). In post-war Germany (Western part), the government decided that the best and only realistic way to address the massive shortage of housing was by promoting rental housing. The popular acceptance of this approach was secured by applying a relatively high standard of quality to these new rental houses. The promotion of home ownership came much later and was not as pronounced.

In the former socialist part of Germany (East) extremely low government-subsidized rents and high barriers to the acquisition of property resulted in a home ownership rate of about 20% at the time of reunification, while in West Germany over 40% of households were already

owner-occupiers.[2] The overall German home-ownership rate is still depressed as a result of reunification in 1990.

The rental market continues to be attractive in Germany, as there are many types of rental housing, from simple studio apartments to luxurious villas. The adequate supply of good-quality rental housing is also due to a tenancy law which carefully balances the interests of tenants and landlords: the tenant has a strong legal status, but the rules also ensure that rental housing is an attractive investment for private individuals. This might also explain why over 60% of German rental housings are offered by "amateur-landlords" who consider this as an investment and retirement asset.

But how does the rental market contribute to the overall stability of the housing market? If there is no adequate rental housing market or if it is seen as financially less advantageous when compared to owner occupation, there is a strong "push factor" towards owner occupation. This can lead to a situation in which property is purchased with no or very limited down payments, which represents a significant risk not only but in particular for households with poor credit standing. If lenders disburse many loans

with high loan-to-value ratio, the risks increase for the entire financial system.

High levels of aspiration to ownership, a high level of household debt and risky financial practices of lenders (euphemistically called "financial innovation") can go hand in hand and increase the volatility of property prices and the risk of bubble formation.[3] This self-reinforcing (endogenous) circuit is disrupted in Germany by the lack of a strong "push factor" towards home ownership. Households have more time for the purchase and can save up correspondingly more equity. This accommodates also the high expectations which German households usually have in terms of the quality and size of their own property. In terms of international comparison, German households apply voluntarily (and only partly because of government requirements) relatively high standards to their own property. Owner occupied housing in Germany is less standardized than in some countries such as the UK and as Germans are more likely only to purchase one home over their lifetimes than buyers in some other national markets the build quality, location and other amenities are subjectively more important than for buyers who intend to move on after a few years.

Figure 3   Age structure of dwelling stock in OECD countries

Legend: 1971-2000 | 1946-1970 | Before 1945
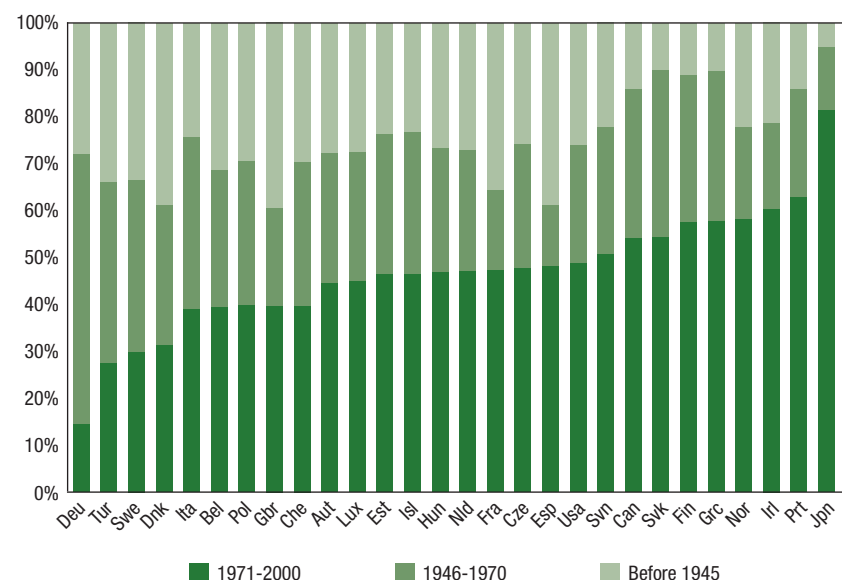
Source: OECD: Housing markets and structural policies in OECD countries, Paris 2011, p. 14.

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[2] Eekhoff, J.: Wohnungspolitik, Tübingen 2002, p. 207.

[3] Goel, Anand M./Song, Fenghuag/Thakor, Anjan V.: Correlated Leverage and Its Ramifications, St. Louis/ Brussels 2014.

Lending practices which are usually characterised as cautious and long-term in nature support the above attitude of German households who usually bring considerable equity with them when buying property. Additionally, most housing loans have a long duration with fixed interest rates for the whole term. In effect, risk is reduced and the borrower can plan more effectively for the long-term. Furthermore, lenders do not only look after the quality and location of a property, but they also undertake a thorough creditworthiness assessment of the borrower. High LTV loans are usually only possible if the property is sound and creditworthiness of the borrower is strong. The result of this cautious approach is an extremely low loan default rate in Germany. This in turn helps to keep interest rates for mortgage loans low.

There is no representative data regarding average LTV, repayment rate and other mortgage contract details. However, Germany's largest electronic marketplace for financial service EUROPACE publishes its data on housing finance transactions. This market accounts for about 15% of the total transaction volume. However, customers of EUROPACE do not represent a cross section of the total market but have a higher risk profile. Nevertheless, the data is probably the best approximation available. In the first quarter of 2014, the average LTV was 77.93%. The interest rate was fixed for 11 years and 4 months on average while the average repayment rate was 2.43%.

German borrowers can choose from a wide product menu. The average values however conceal this product diversity. Though the average LTV was 77.93%, there were also significant numbers of EUROPACE transactions with LTVs higher than that: 24.4% transactions had an LTV of 81%-90%, 14.4 had an LTV of 91%-100% and even 3.2% of all transactions had an LTV above 100%. Only 2.55% of all customers chose a variable interest rate while 10.2% chose an interest rate fixed for more than 15 years.

It is important to note that the total market will have a smaller share of transactions with LTVs exceeding 80% than EUROPACE as the other lenders are by far more conservative. Some of the lenders will barely offer LTVs higher than 80% - Bausparkassen are legally restricted in relation to lending at more than 80% LTV.

The funding side of German credit institutions reflects the general drive towards this long-term and cautious lending, as particularly safe funding instruments (like the Covered Bonds) are used which also do not absolve the lender from liability and risk. The securitisation of mortgage loans (by using mortgage backed securities) rarely takes place. Furthermore, there are Bausparkassen (specialised lenders for mortgage loans) which are an institutionalised form of "saving for housing". This particularly reliable and popular instrument offers customers very favorably priced fixed-rate loans if they have previously saved up equity with the Bausparkasse for a few years. Overall, the German market for housing finance is very competitive with many players: Bausparkassen, savings banks, cooperative banks, private banks and insurance companies struggle to win the favor of customers. The customers can therefore choose from a wide range of products with attractive terms (Figure 4).

The mix of funding used by lenders for mortgage loans depends a lot on the type of the credit institution. Savings banks and cooperative banks which traditionally attract a lot of deposits will rely more on deposits for funding than private banks. Bausparkassen with their special business model almost solely rely for funding on the deposit base generated by long-term savings contracts. The amount of outstanding mortgage covered bonds was equivalent to 23.4% of all outstanding housing loans in 2009, while the respective proportion for mortgage backed securities was 1.8%.[4] The remaining funding was financed mainly from deposits but also through the issue of unsecured debt and interbank loans.

Concerns expressed by several international observers that the relatively low rate of home ownership in Germany might be due to a conservative and restrictive housing finance system can be therefore refuted. There are several studies which attest the German housing market as having a much higher home ownership potential. The most recent study on this topic was published in 2013 by LBS Research/empirica.[5] The authors of this study link average household income with the average prices for resale properties at the regional level. Furthermore, the study's authors assume that home ownership in the region is feasible for a household which makes a down payment equivalent to their annual net income if the financial burden of a total of 6 percent per year (interest plus repayment rate) does not exceed 35 percent

Figure 4   Shares of total housing finance disbursements in Germany 2012

- Savings Banks – 34%
- Bausparkassen – 23%
- Cooperative Banks – 17%
- Private Banks – 18%
- Other – 8%
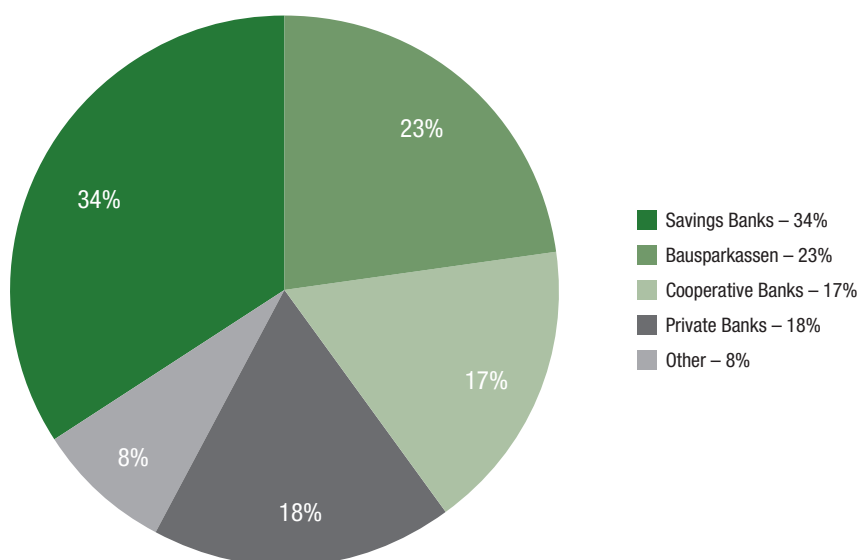
Source: Verband der Privaten Bausparkassen.

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[4] Deutsche Bank Research: Wie Banken in der EU Wohnimmobilienkredite refinanzieren, Frankfurt 2011, p. 5.

[5] Bundesgeschäftsstelle Landesbausparkasse (ed.): Markt für Wohnimmobilien 2014, Berlin 2014, pp. 54-58.

of net household income. Under these premises, a Germany-wide ownership rate of 64% would be potentially possible, although there are significant regional differences. The assumptions of the study authors can be considered as fairly conservative: in only 18 out of more than 300 German regions is more than the average household income required when it comes to the financing of local property. The assumed financial burden of 6% lies also at the upper end of the scale given the current low interest rate environment. In addition, many households can significantly put down a higher down payment than just one year's household income and the study does not take into consideration the fact that households could purchase property in adjacent regions with lower price levels. Deutsche Bank Research publishes also an affordability index which hovers around its historic low in 2010.[6] This affordability index sets mortgage payments for fully financed property (LTV of 100%) against disposable income (Fig. 5). Deutsche Bank Research considers also that regional differences play an important part. In Figure 6, the average prices of apartments are set against disposable per-capita income in particular regions. The upward slope of the regression line represents a positive correlation between incomes and property prices. In addition, deviations from the regression line illustrate

relatively cheap and expensive locations: all points above the line are relatively expensive for the current working population, while all points below the line are relatively attractive. Figure 7 lists several German cities ranked according to their affordability with Suhl being the most and Berlin the least affordable for the population working in these cities.

It might be of interest in this context that Deutsche Bundesbank researched the income profile of

home owners in Germany in 2013. Figure 8 shows that higher gross incomes go along with higher ownership rates – a trend that does not deviate from the one in other developed countries.

The study of LBS Research/empirica as well as the affordability index of Deutsche Bank Research confirm the basic findings of older research on the subject that there is a high potential for increased home ownership in Germany. The German housing finance sys-

Figure 5 **Property prices, incomes, affordability: 1975=100 (left) and mortgage rates, % (right)**

Mortgage rates | Affordability index | Property prices | Disposable incomes
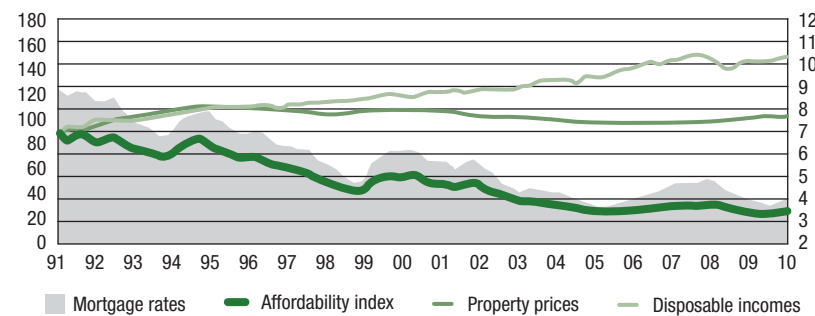
Source: Deutsche Bank Research.

Figure 6 **Affordability of property in different cities**
(x-axis: disposable income per capita, EUR in Thousand, y-axis: price of apartments, EUR/m²)
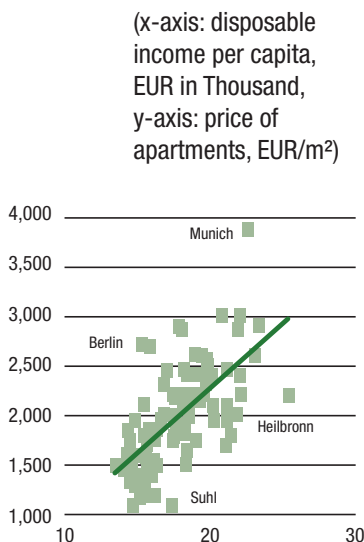
Source: Deutsche Bank Research.

Figure 7 **Affordability: Top-10 and bottom-10 cities**
(house prices/disposable incomes in region)
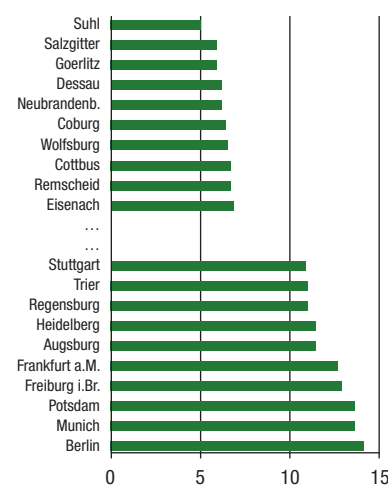
Based on residential properties of medium size and quality.

Source: Deutsche Bank Research.

Figure 8 **Gross income of households and home ownership rates**

Gross income of household (quantile)	Rate of home ownership (in %)
0-20%	16
20-40%	35
40-60%	43
60-80%	55
80-90%	70
90-100%	74

Source: Deutsche Bundesbank: Vermögen und Finanzen privater Haushalte in Deutschland. Ergebnisse der Bundesbankstudie, Frankfurt 2013, p.42.

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[6] Deutsche Bank Research: German residential property. Back in fashion – with good reason?, Frankfurt 2010.

tem can therefore be assessed as stable and efficient. Why the homeownership potential has been still not realized to a much greater degree, can be discussed only briefly in this article. One of the most likely reasons is that the inventory of homes totaling more than 40 million housing units for a population of 80 million must be considered as very good. The supply of new houses has remained essentially in step with the demographic trend and demand. Demand was, however, during the past two decades restrained, in particular because of the strongly negative demographic trend for young households (25-34 years) which usually form the largest demand group for owner occupied property – their number decreased from 14 million in 1994 to 10 million in 2006.

In addition, **the cautious housing policy of the German government** avoids over-investment in real estate and it also has virtually no influence on the decision between buying and renting. The German government has deleted most of the not very generous subsidies for home-ownership and rental housing during the last two decades without replacing them. In the group of developed economies, Germany has the lowest level of direct and indirect housing subsidies – and the trend is further decreasing.[7] The remaining instruments barely have any distorting effect on the market and also do not have a regressive effect which puts lower-income households at a disadvantage. However, the taxation regime for rental property favours wealthier landlords. (See Appendix 1 for more details on subsidies and taxation)

In particular since the financial crisis, there are numerous studies that have examined the distorting effects of different housing policies and subsidies.[8] In particular, the tax deductibility of mortgage interest payments for owner occupied houses which is possible in a number of countries but not in Germany, has come under strong criticism. It is said to encourage the overuse of debt finance (excessive leverage) and the purchase of large homes (overconsumption of housing) as well as particularly benefiting households with higher incomes (regressive effect). Although mortgage interest tax deductions for owner occupied houses distort investment decisions in favour of residential property, no positive effects on the rate of home ownership can be observed. However, other housing policies such as government-backed mortgage insurances are criticised as well as they distort the decision between buying and renting and might also increase the volatility of property prices.

Germany refrains from using market-distorting and socially unbalanced subsidies and policies and tries to control the market essentially with regulatory instruments (see Appendix 1). Furthermore, a property speculation tax for private owners of real estate ensures that housing is not regarded as a speculative investment. Capital gains realised by an individual from the sale of property are only exempt from the Capital Gains Tax if the property was owner occupied or held for more than ten years.

What lessons can be learned from the German model?

• A housing finance system which values stability and safety does not constitute an obstacle to a moderately high rate of home ownership (around 65%) if properly designed and competitive (many players in the market). On the contrary, a conservative housing finance system (equity, fixed-rate loans with long maturities) dampens price volatility in the real estate market which considerably improves the affordability of home ownership.

• A lively rental market which is not preoccupied with stigma has an important buffer function. It dampens the urge to enter home ownership and offers in particular but not only, young, mobile and/or low-income households a safe tenure alternative.

• High direct or indirect subsidies for the housing market are not necessary in most developed economies in order to have an efficient real estate market. On the contrary, many policies distort the market significantly, are highly regressive and increase the volatility of prices of real estate. Regulatory instruments that avoid direct intervention in the market may be the better choice.

The German housing market is a historically developed and coherent structure. It is therefore not possible to transfer the whole model to other countries. However, specific components that have been worked out in this article as essential for the stability of the German housing market can be introduced in other countries in an adapted form that takes into account the specific characteristics of those markets. The introduction of some policies will likely require a long period of time because political resistance and the avoidance of distortions in the market might require a slow phasing in of new policies. Last but not least, the trade-off between different components must be balanced. For example, the revival of the rental housing market should preferably be fostered with as few market-distorting subsidy programmes as possible.

APPENDIX 1:
Subsidies and taxation

Subsidies:

The Federal German Government supports the housing market with several instruments. Most of these instruments and their costs can be found in the *Subventionsbericht* (subsidy report):

Building Energy Efficiency Programme – 2013: 759 Mill. Euro:
This programme enables the government bank KfW to offer cheap loans to home-owners and landlords who build a new house or refurbish an existing one. In order to qualify for the programme, the buildings must have higher energy-efficiency standards than required by law. All of the subsidies go to the housing market but only a part is invested for the construction of new houses. The subsidy is meant to compensate for higher building costs through the achievement of higher energy-efficiency standards.

City Development Programme – 2013: 450 Mill. Euro:
This programme supports the development of public infrastructure in cities and the preservation of historical city parts. Only a small fraction of the total amount is to the benefit of the residential housing market – e.g. if a historical residential building is refurbished. No new residential building can be constructed with this programme.

Social Housing Programme – 2013: 518 Mill. Euro:
This programme supports the construction of social housing. However, only a part of the total amount is invested in new social housing or for the refurbishment of existing homes. Many municipalities use the means to refinance existing obligations/liabilities for social housings constructed in the 1970ies/80ies.

Housing Savings Bonus – 2013: 354 Mill. Euro:
This bonus is paid to individuals for savings made on Bauspar accounts. This subsidy is only for home-owners that build a new house or buy/refurbish an existing one. This type of subsidy completely goes to the housing market.

Housing Allowance – 2013: approx. 16 Bill. Euro:
The housing allowance is paid to households which fall below a certain income threshold or live on social security benefits (Hartz IV). The housing allowance covers the cost of housing fully or partly. There are about 3.5 Million households that receive this allowance – also 70.000 owner-occupiers receive it. The hous-

ing allowance does not have a direct effect on the supply for housing. However, it has a distorting effect on the lower price segment of the rental housing market. The German government puts more emphasis on benefit payments for individuals than on benefit payments for projects (like the construction of new social housing).

Taxation:

Landlords:

Rental income is taxed at progressive rates (the individual income tax rate of the landlord or corporation tax applies). Expenses from the gross receipts, which were incurred to produce, maintain and safeguard that income can be deducted as well as the mortgage interest. Depreciation is generally set at 2%. Investments undertaken for maintenance of the property cannot be deducted in the year when they exceed 15% of the purchase price. They have to be added to the depreciable value of the property instead. If the property was held for less than ten years, gains incurred from the sales of property attract capital gains tax. When computing taxable capital gains, acquisition costs and improvement costs are deductible from the selling price.

Landlords and home owners:

Both have to pay property tax and property acquisition tax.

Home owners:

Home owners can deduct from their individual income tax so called "household-related services". However, this possibility is rather limited (only 20% of the wage of the workman and a maximum of 1200 Euro per annum can be deducted) and applies also for tenants.

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The future of social housing in Northern Ireland:
Structure, funding and supply

↳ **By Joe Frey**

1. Introduction

The foundations for the structure of social housing in Northern Ireland today were laid by the Northern Ireland Housing Executive Act (NI) 1971. This piece of legislation established the Housing Executive as a publicly owned quango which took over the ownership and management of a stock of approximately 150,000 dwellings previously owned and managed by 61 local authorities, the Northern Ireland Housing Trust and three Development Corporations. This fundamental restructuring of what was then known as public housing took place in the context of major political upheaval from which Northern Ireland only really started to emerge almost 30 years later after the signing of "The Agreement[1]" in 1998. The new structure which was put in place in 1971 and which even to this day sees social housing dominated by the Northern Ireland Housing Executive started to change in the 1980s with the growth of the housing association movement and within the Housing Executive the evolution of a more private sector orientated outlook as part of the Conservative modernising services agenda. However, it is only in recent years that there has been a sustained drive to fundamentally change the face of Northern Ireland's social housing, a process which has culminated in the Department for Social Development's *Facing the Future: Housing Strategy for Northern Ireland*, a strategy which heralds a direction of travel which could see Northern Ireland becoming the only region of the UK to have no public sector housing.

This article begins by providing the historical context for change. It traces the key housing market trends which have seen a very significant reduction in the number and proportion of social homes in Northern Ireland over a period of more than 40 years. It looks at the growing emphasis on private sector finance against a background of the general trend in housing subsidy to move from bricks and mortar to more targeted personal subsidies and the long-standing attempts to increase the supply of social housing in the context of increasingly constrained public sector finances. Finally, it examines more specifically the key strategic documents and statements from key decision makers, including what has become known as the Social Housing Reform Programme as a basis for a balanced estimate of what the structure, funding and supply of social housing will look like in the future, an estimate that is predicated on the inescapable conclusion that social housing in Northern Ireland will remain a highly politicised issue for the foreseeable future.

2. The Historical Context

Brett (1986) highlights the "Squatting at Caledon" in June 1968 as bringing "housing to the very forefront of political dissension in Northern Ireland" (p.7), and some commentators have identified it as the starting point of the "Troubles", the euphemistic term for the violent political conflict that for three decades provided the backdrop to the evolution of social housing in Northern Ireland. The squatting incident involved the allocation of a new council dwelling in Dungannon to a single Protestant woman ahead of a Catholic woman with three young children, who then squatted in a neighbouring house, only to be evicted shortly afterwards in a glare of publicity, highlighting both the issue of religious discrimination and the absence of housing allocation policies based on need. These two closely related issues have remained on the agenda to this day and continue to form key considerations in the future structure of social housing in Northern Ireland.

In the late 1960s, Northern Ireland's civil rights movement, drawing its inspiration from America, had gained significant support. Housing inequality was a central plank of its campaign. The protest marches, rioting, intimidation and large scale internal migration which followed heralded the beginning of an era of armed conflict and led directly to the Cameron Commission of Inquiry into the "Disturbances in Northern Ireland". The Report of the Cameron Commission published in September 1969 highlighted "the inadequacy of housing provision by certain local authorities" and the "unfair methods of allocation of

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houses built and let by such authorities" and the absence of a "points" system of allocation based on housing need (HMSO, para.229). There has been considerable debate about the actual degree and extent of religious discrimination in housing at that time, but there is no doubt that the perception of discrimination remains widespread and to this day forms an important part of the debate on the future of social housing in Northern Ireland.

3. The Formation of the Housing Executive

The Housing Executive came into being in February 1971 and by the end of 1972 had become the sole social housing organisation in Northern Ireland. Its core governance structure has remained broadly unchanged: a supervisory Board of nine members, six of whom (including the Chair and Vice-Chair were to be Ministerial appointees) and three to be nominated by the Housing Council – a consultative and advisory body comprising one member from the council of elected members representing each local authority. In practice the three members came to represent the views of the three main political parties. Following the 1998 Agreement, the Board was expanded to include a representative of Sinn Fein, which by then had become one of the leading political parties. One of the key debates on the future of social housing in Northern Ireland is around the future involvement of political representatives in the governance of social housing.

The first meeting of the Housing Executive's Board took place in May 1971. It was addressed by Northern Ireland's Minister of Development, who confirmed the Government's five-year house building programme to 1975 of 73,500 homes, 13,000 of which had already been completed. Figures which in today's context seem enormous, but reflect the fact that in the early 1970's, Northern Ireland was seen as having the worst housing conditions in western Europe. Indeed from its formation, the Housing Executive recognised that its mission was not only to ensure the professionalisation and de-politicisation of housing, but to drive forward a programme "for the provision of accommodation, the closure, demolition and clearance of unfit houses, the improvement and conversion of houses, and for the encouragement of the provision of new houses and improvements by others" (First Annual Report, p.10) – something which heralded its later more formally recognised "enabler" role – which would lead to significantly better housing conditions.

During the 1990s the Northern Ireland Housing Executive was at the height of its power and prestige. It had introduced a transparent points-based Housing Allocation Scheme, which reflected housing need and was universally applied. It had undertaken a series of House Condition Surveys at approximately five-yearly intervals in parallel with the rest of the UK which showed that the level of unfitness in Northern Ireland had dropped from almost 20% (compared to 7% in England and Wales) in 1974 to 7.3% in 1996. It had commissioned research from Glasgow University which underpinned a points-based Rent Scheme. This Rent Scheme used recognised indicators of housing quality – age, dwelling type, size and amenities – to determine a rent on a consistent basis, which meant that rents were determined on the same basis across Northern Ireland. The principle of comparable rents for comparable Housing Executive properties remains to this day. It was receiving substantial public subsidy via an annual revenue deficit grant, which allowed it to keep rents affordable as well as undertaking substantial capital improvements to its own stock and to provide generous home improvement grants to owner occupiers.

In fact during the 1990s the Housing Executive was recognised as being among the most forward-looking and innovative housing organisations of its day, basing its policy and practice on a multi-faceted programme of research and collaborative working with tenants and elected representatives. However, these achievements took place in a period when public subvention generally, and housing subsidy in particular, was less constrained and housing was still a Government expenditure priority in Northern Ireland. This position changed in the new millennium. Before examining the changes which followed, however, it is important to look briefly at the emergence and evolution of the housing association movement in Northern Ireland, a sector which has steadily gained in its significance in the last two decades.

4. The Housing Association Movement

The modern housing association movement in Northern Ireland emerged in the 1970s in the context of an "upsurge in community activity and in the formation of tenants' associations and community groups many of which were established to lobby against redevelopment and to protect their areas from paramilitary organisations" (Mackay and Williamson, 2001, p.112). The community-based organisations

that emerged focussed on rehabilitation of existing properties and in Belfast in particular played an important role in the Housing Action Areas that replaced large scale redevelopment projects at that time. The 1976 Housing Order provided a legislative basis for a rapid expansion of housing associations. In 1978 the Department of the Environment issued a circular which envisaged the Housing Executive concentrating on mainstream housing and housing associations on more specialised fields such as sheltered housing for the elderly, accommodation for single people and community based housing renewal. Leading special-needs associations such as the Royal British Legion, Anchor and Habinteg were encouraged to develop subsidiary organisations in Northern Ireland. By the late 1980s the Housing Executive had withdrawn from the provision of sheltered accommodation and transferred the management of its remaining schemes to the housing associations. And by 1990, Northern Ireland had 45 registered housing associations managing a stock of more than 13,000 homes. Indeed by 2000, the housing association movement had grown to become a significant player in social housing in Northern Ireland, with a stock of 17,500 properties (NIHE, 2002, p.57).

Housing Associations in the 1980s were funded by a combination of Housing Association Grant (HAG: a government grant to registered housing associations for the purchase of land and the development of new dwellings) and a Revenue Deficit Grant which underpinned any potential losses on the revenue side. In 1991, however, the Government introduced a system of mixed funding, which aimed to maximise output in terms of new and rehabilitated homes for an increasingly limited public subsidy. Housing Associations were allowed more freedom to set their own rents for newly constructed "mixed-funded" properties, rather than having to conform to the Housing Executive's points based rent scheme as they had previously. By 1999/2000 the housing associations were responsible for delivering a social new build programme of 1,900 properties with the aid of a combination of a £58 million Government Grant (HAG) and £35 million in private loans (Mackay and Williamson, 2001, p.114).

5. House Sales Scheme

Before turning to the more recent developments which are shaping the future structure, funding and supply of social housing, it is important to briefly examine the sale of Housing Executive dwellings, which over

the years has played a vital role in shaping the structure, funding and supply of social housing in Northern Ireland. In any discussion of housing in the UK, 1980 is seen as a watershed because of the introduction of the new Conservative Government's flagship "Right to Buy" policy. The Housing Executive, however, had already decided to introduce its own house sales scheme voluntarily prior to this. In February 1979, it broadened the criteria for sale and made available more than 54,000 homes (approximately 30% of its stock) to sitting tenants. In the financial year 1980/81 approximately 27,000 applications were received and 2,000 actually sold.

From the start, the voluntary House Sales Scheme in Northern Ireland was surrounded by political controversy in terms of its effect on housing supply. A major research report commissioned by the Housing Executive in 2002 attempted to provide a balanced view of the impact of the scheme on social housing. Murie *et al* (2004) noted that at the start of the new millennium more than 100,000 properties had been sold, more than remained in the ownership of the Housing Executive and emphasised the positive role the scheme had made in promoting tenure choice, the creation of mixed tenure estates with an improved image and the substantial capital receipts generated which had enabled an ongoing programme of capital investment on a large scale.

However, when addressing the core issue of the effects of the House Sales Scheme on the supply of social housing Murie et al (2004) were more cautious. "The relationship between house sales and housing need [via supply] is complex; there is no simple causation or statistical link. Housing stress is a function of wider social and economic issues rather than the direct outcome of the House Sales Scheme" (Murie *et al*, 2004, p.15). However, the authors of this study, while recognising that the immediate impact of the scheme on housing supply and need is limited, as sales are to sitting tenants who more than likely would have been unable to move out and buy elsewhere, highlighted a lagged impact and estimated that over the 10 years prior to the research being undertaken, one in six Housing Executive properties may have been lost from the potential supply of social dwellings available for re-letting. The study also highlights that at a more local level, and particularly in

areas where need cannot be met in adjacent areas, local shortages of three and four bedroom family homes are clearly evident as a result of the House Sales Scheme. Murie et al conclude that the effect of the House Sales Scheme on housing supply is contingent upon other policies and that "if capital receipts[2] were used to add more than one property for every five sold, the net effect would be positive in terms of the impact on housing need" (ibid., p.18).

The House Sales Scheme was undoubtedly the most obvious effect of a growing emphasis on private sources of funding for housing, as successive governments became more and more committed to limiting the Government's annual Public Sector Borrowing Requirement. In the Housing Executive, there was a growing emphasis on accountability, on Value for Money, on Economic Appraisals for capital projects and following the announcement of the Government's Next Steps initiative in February 1988, the drive to position the Housing Executive as a more efficient and effective organisation, delivering better quality services to the public. Improving customer service became a mantra which was reflected in the launch of the first Continuous Tenant Omnibus Survey – an annual survey of more than 3,000 Housing Executive tenants each year, which has continued to this day – and which provided the organisation with not only a socio-economic and socio-demographic profile of its tenants, but also a comprehensive insight into their attitudes to the services provided by the Housing Executive. It was against this background of a growing emphasis on customer focus and a private sector orientation that the Department of the Environment launched its Housing Policy Review, which began to address some of the key issues facing social housing today.

6. Housing Policy Review

The report, published in 1996 was already a harbinger of the key developments in social housing that were to take place in the new millennium. It envisaged that the Housing Executive's role would "increasingly be that of a strategic enabler in the assessment of housing need, the provision of and access to homes and securing the effective development and use of all housing tenures" (DoE, 1996,

p.59). It argued that a shift from 'bricks and mortar' to personal subsidies would enable "better targeting of resources and achieving more with the taxpayers money" (ibid. p.59). The principle of comparable rents for comparable properties enshrined in the Housing Executive's rent scheme was to remain, but raised what is still a contentious issue today: the relatively low rents being charged for Housing Executive properties. The Review also examined the potential for extending the use of private finance to fund capital projects. While the transfer of Executive stock has "particular difficulties in Northern Ireland there may be scope in the future for extending private finance into social housing by this means" (ibid.,p.59).

The most significant short-term effect of the Housing Policy Review, however, was that the responsibility for the delivery of the social new-build programme in Northern Ireland would increasingly (and within 5 years, entirely) become the responsibility of the housing association movement. Behind the scenes there was considerable debate around this issue, whether in fact housing associations had sufficient capacity to deliver the programme, whether the affordable rents that housing associations could charge on properties built after 1992 would be genuinely affordable and whether this was simply transferring part of the 'bricks and mortar' subsidy to the social security budget via Housing Benefit. However, the fact that unlike Housing Executive debt, housing association borrowing did not count against the Public Sector Borrowing Requirement was the paramount consideration and over the following years many new social housing schemes which were scheduled to be delivered by the Housing Executive were transferred to housing associations.

At the time this transfer of the new build programme to housing associations was correctly seen as a significant reduction in the Housing Executive's role as the comprehensive regional housing authority. The unwritten, but widely understood, *quid pro quo* was the strengthening of its "strategic and enabler role", something that was reflected in the launch of an annual review of the housing market – a tenure neutral document which examined all tenures rather than just focussing on the social sector – as its Draft Housing Strategy had done for many years previously.

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[2] In Northern Ireland capital receipts (until very recently) played a major role in financing housing capital expenditure. Unlike in England, the Housing Executive was allowed to re-invest 100 per cent of its capital receipts. The marked drop in capital receipts since the property market crash in 2007/08 has created serious difficulties for the Housing Executive in terms of financing necessary capital improvements to its own stock.

7. The new millennium

The 1996 Housing Policy Review constituted a watershed in housing policy in Northern Ireland. It heralded a period characterised by a growing emphasis on private sources of funding for what became known as the Social Housing Development Programme, which, after a short transitional period, was to be delivered entirely by housing associations. The Housing Executive continued to be the largest social landlord in Western Europe, but in addition took on a more strategic role with a commitment to all sectors of the housing market.

There were a number of key issues, however, which by the turn of the new millennium remained unresolved. Following the signing of the 1998 Agreement, there was a sense that the two-fold historic mission of the Housing Executive: to significantly improve housing conditions and manage social housing on a fair and equitable basis had been achieved. The 2001 Northern Ireland Housing Condition Survey recorded that the level of unfitness had fallen to below 5% and having allocated tens of thousands of homes the Housing Executive had never been found to have allocated a home on the basis of religious discrimination. There was therefore an underlying view developing that the housing system in Northern Ireland, which had for three decades been dominated by the Housing Executive, should become more like the systems prevailing in the rest of the UK, a view that resulted in a series of inquiries, commissions and consultancies in the first decade of the new millennium, which focussed on the housing system and which culminated in 2012 in the Department for Social Development's *Facing the Future: Housing Strategy for Northern Ireland*.

8. Inquiry into Housing in Northern Ireland

The first of these was undertaken by the Committee for Social Development, one of the Committees of elected MLAs [Member of the Legislative Assembly] set up in the Northern Ireland Assembly as part of the governance structures put in place following the 1998 Agreement. This inquiry looked at a number of issues, but the most significant of these was its view on Large Scale Voluntary Transfers [LSVTs], which were proceeding apace in GB at the time. Following the 1996 Housing Policy Review and the changing roles that this heralded, there had been a growing tension between the housing association movement and the Housing Executive in relation to a per-

ceived conflict of interest between the Housing Executive as a landlord and its strategic role in terms of resource allocation. LSVTs were seen as a potential way to deal with this and address the underlying drive to reduce the reliance of social housing on the public purse. However, the report produced by the Committee for Social Development noted that "it could be argued that the mixed strategic/operational role in Northern Ireland has been successful" and that "the limited research carried out by the Housing Executive suggests that tenants are satisfied with the Housing Executive as landlord and it may be difficult to secure agreement to transfer" (Northern Ireland Assembly Committee for Social Development, 2001, section 7.1.4.).

The report also touched upon one of the main drivers of LSVTs in GB – the substantial investment backlogs, noting that these do not exist in Northern Ireland, where the social rented sector is in relatively good condition, but recognised a need for continued re-investment. "Whether this can be funded from within public sector resources will be a key determinant of the best model" (ibid. section 7.5). Its principal recommendation in relation to LSVTs was that the Housing Executive should have "an enhanced strategic role" and that future legislation should address the perceived conflict between this role and its role as the largest social landlord in Northern Ireland.

9. Northern Ireland Affairs Committee Report

In October 2004, the House of Commons Northern Ireland Affairs Committee published its own report on Social Housing Provision in Northern Ireland based on the oral evidence presented to them between March and June by a wide range of experts. In its summary report, it acknowledged that the "establishment of the Northern Ireland Housing Executive (NIHE) in 1972 provided a single, comprehensive regional strategic housing authority which has had a significant stabilising influence throughout the years of the 'troubles'" (House of Commons Northern Ireland Affairs Committee, 2004, p.5). An insight into the potential political conflict surrounding any major change in the governance of social housing in Northern Ireland emerges in its clear disapproval that "a fundamental study commissioned by DSD [Department for Social Development] and NIHE [the Housing Executive] to examine the available options for the future management of social housing in Northern Ireland was undertaken by HACAS Chapman Hendy in October 2000… *Three years later the report has still not been published*" (ibid.

p.23; original emphasis). The report notes the Department for Social Development's response on the outcome of this study as indicating that in relation to the Housing Executive, the status quo is likely to remain. It concluded, however, that "it is our conviction that a root and branch review of the management of social housing in Northern Ireland is long overdue and we call on the Minister to initiate one" (ibid. p.23).

The HACAS Chapman Hendy report was made publicly available at a later date. The report noted that the Housing Executive "has a commendable track record as the province's strategic housing authority and principal social landlord" (HACASChapmanHendy, 2003, p.1) and focused on the issue of funding sources to support necessary investment in the stock to ensure it was maintained to a high standard. It concluded that the status quo was not an option given the combined influence of a number of factors: the changing needs of communities, its ageing stock and wider economic and political factors. It examined a number of options for fundamental change including whole stock transfer, which it estimated would realise a capital transfer of £888m against an outstanding debt of £1.44bn and the issue of a potential write off or further direct subsidy to support repayments on the outstanding loan. It also highlighted an as yet unresolved issue: the funding of the strategic role of a residual strategic body divested of its landlord role – which the report argued would have to be funded by direct subsidy. It also examined the concept of prudential borrowing already operating in GB, at that time, which involved borrowing on a sustainable basis taking into account available revenue and sound financial management. Its overall conclusion was that there was "no substantive case for change in the short term… provided "income streams do not fall significantly; and exceptional expenditure does not rise" (ibid. p.7). In the medium term there should be a re-appraisal of options.

10. The Best Report

The political impasse on the future of social housing in Northern Ireland was reflected in the establishment of an *Independent Commission on the Future for Housing in Northern Ireland*. It was launched in April, 2009, chaired by Lord Richard Best and co-ordinated by the Chartered Institute of Housing. In the Foreword to the report, Lord Best expresses his wish that "the dispassionate, independent overview we have brought together helps inform policy-makers and practitioners, not just in looking at matters of immediate interest but in setting the direc-

tion for Northern Ireland's housing for some years to come" (CIH, 2010, p.5). In one sense the report had little to say that was new (Muir, 2012, p.9), but there is no doubt the fact that the Commission was chaired by Lord Best, undoubtedly one of the most respected figures in housing in the UK, the leading role played by the CIH and its comprehensiveness, gives the report a weight that other reports did not have.

The Best Report, as it became known, provided a number of guidelines on the future structure, funding and supply of social housing in Northern Ireland. It recommended that the Department for Social Development [DSD] (rather than the Housing Executive) publishes a Housing Strategy for Northern Ireland, which would set out long term policy goals for the housing system. The Housing Executive would have a central role in the DSD's housing strategy, but that there should be "a separation of the strategic enabling role of the NIHE, from its social landlord role, within a single organisation, with one overarching Board and Chief Executive" (CIH, 2010, p.17). It envisaged the Housing Executive's landlord role becoming an integral, but distinct business enterprise, with a greater role for residents in its governance. The extra investment in the Housing Executive's housing stock should be achieved by a combination of modest rent increases and re-profiling of annual repayment of historic debt and on this basis the organisation's landlord role should stay in the public sector on a self-financing basis for the coming period. The landlord body with its own board should have within the Housing Executive its own set of accounts and one-third of its Board members should be Housing Executive tenants. The report saw the Housing Executive taking the lead in exploring additional funding sources, including partnerships with institutional investors interested in long-term involvement in rented housing.

In relation to the housing associations, the Best report envisaged an expanding role, including legal powers to build for shared ownership/low cost homeownership/outright sale and to use the proceeds to cross-subsidise new development. It also provided qualified support for the principle of competitive bidding for Housing Association Grant, something which had been a source of concern for housing associations, because of the potential impact on the viability of their operations. It also highlighted the need to examine the potential for housing associations to work together to share services and secure better procurement deals. It also recommended that the Co-Ownership scheme should be continued in its current form, but that the Northern Ireland Co-Ownership Housing Association should partner other housing associations in the development of mixed tenure schemes.

The publication of the Best report in May 2010 coincided with the appointment of a new Minister for Social Development, Alex Attwood, with responsibility for housing. In October 2010, he announced his intention to examine all functions of the Housing Executive in detail, with a view to providing a comprehensive assessment of their contribution to housing and other Departmental and Government policy objectives. The DSD subsequently commissioned PricewaterhouseCoopers [PwC] to undertake this fundamental review. PwC produced its final report in June 2011, setting out a vision for the future of social housing in Northern Ireland and within this the future role of the Housing Executive.

11. The PwC report

PwC was commissioned by the Department for Social Development to undertake "a fundamental review" of the Housing Executive in order to "identify a strategic direction of travel for the delivery of those services currently delivered by NIHE" (DSD, 2011a,p.2). The report acknowledged that the current structures "do not provide the financial stability that is required to meet the future challenges particularly around the housing investment programme" (ibid. p.2). PwC's vision for social housing was that it included a focused and innovative policy function, a strong independent regulator, a strategic function with a holistic view of housing and with responsibility for key public sector housing programmes and an effective and efficient landlord function – reflected in a split between the landlord and strategic functions of the present Housing Executive.

The more detailed exposition of the key elements of this vision touched upon some key finance-related questions which have still not been resolved. The first element of the new structures was a new Housing Regulator – with responsibility for independent inspection and governance – a role currently undertaken by DSD and independent setting of rent levels for social and affordable housing landlords. The issue of where this new organisation should sit and whether there should be convergence between Housing Executive and housing association rents was left unanswered. PwC recommended that the Housing Regulator should be an Executive Agency within DSD, but recognised the danger of this being perceived as being under political control and therefore not independent.

The second element of the vision was a new Strategic Housing Authority for Northern Ireland, which would have ultimate ownership of the stock, responsibility for the development and delivery of a holistic Housing Strategy and other functions which the Housing Executive currently undertakes, such as the independent assessment of housing need and its role as Energy Conservation Authority. Again it raised two as yet unresolved issues: whether DSD itself should take on all or part of this role and its relationship to Local Government, and specifically the Housing Council set up under the 1971 Act.

Finally, a new Social Enterprise landlord for existing Housing Executive stock would be established, with responsibility for the necessary maintenance investment programme (with the ability to source non-public sector funding) and landlord housing services with a focus on tenants and communities. PwC recommended that this Social Enterprise would be outside the public sector, "established as a company limited by guarantee, with charitable status and is governed as a mutual owned by tenants" (ibid. p.5). Unlike the Housing Executive, it would be "off balance sheet" in terms public sector finances.

PwC recognised that key political decisions needed to be made, and recommended that the DSD should lead a "mature conversation" with all key stakeholders with the aim of "building a consensus on the optimum solution".

PwC had been commissioned under the direction of Alex Attwood for the Social and Democratic Labour Party. Its publication, however, coincided with a change of regime. The Assembly Elections held in May 2011 resulted in a new Minister for Social Development, Nelson McCausland, from the Democratic Unionist Party, which traditionally had a more adversarial relationship with the Housing Executive. The incoming Minister and the DSD indicated that they viewed the PWC report as an independent report and as such they did not have ownership of its recommendations (NIHE, 2011) and that the Minister had asked PwC to engage with key stakeholders, to hold the "mature conversations" and following feedback the Minister would announce his own proposals and subject these to wide consultations (DSD, 2011b).

12. Facing the Future: Housing Strategy for Northern Ireland

The Minister finally gave his response to the Fundamental Review in January 2013, but

before that the DSD – building on the recommendation from the Best Report rather than the PwC report – had published its own housing strategy: *Facing the Future: Housing Strategy for Northern Ireland* (DSD, 2012). This was launched in the autumn of 2012 as the basis for a consultation process that would close on 7th December 2012.

The strategy was a wide ranging document, which touched upon all sectors of the housing market, but the proposals which were of most significance were in relation to the social housing sector. The strategy indicated that Government subsidy for housing associations would continue – but at a lower level and that it would work with housing associations to harmonise rents for future new-build homes and explore alternative innovative models for funding housing (DSD, 2012, p.13). It identified "developer contributions" – the policy instrument requiring private developers to contribute a portion of new developments for social and/or affordable housing – as an important medium term aspiration but indicated that it was unrealistic to expect this to bear fruit in the current economic climate; the existing House Sales Scheme was to be maintained, but subject to review, with a view to allowing tenants to use the discount towards purchase of an equity share or full purchase of an affordable home developed by a housing association. Perhaps most importantly, it expressed a commitment to taking forward Welfare Reform legislation, broadly in line with the Welfare Reform Act which had become law in March 2012 for GB but, "in a way that best reflects our circumstances making use of operational or policy flexibilities where available" (ibid., p.33). The strategy also summarised the key recommendations of the PwC report and proposed that the DSD would "put in place new structures to take forward the fundamental review of the Northern Ireland Housing Executive" (ibid., p.48) by March 2015, the rather vague wording reflecting the political disunity on this issue which remained to be addressed.

Even at this stage it was clear to most observers that the March 2015 target was unrealistic, given that implementation of a fundamental review would require new legislation, a process that typically takes two years in Northern Ireland, and this was on the basis that there was political agreement – in particular a consensus among the leading political parties in the Northern Ireland Assembly – something which at this early stage was clearly absent. Anecdotal evidence at the time indicated that a more realistic timescale for the implementation of fundamental change to the structures would have been 2020.

The collation and analysis of submissions as part of the consultation process proved to be an intensive task. The volume and content of written submissions was reflective of the debate and disagreement surrounding the future of social housing in Northern Ireland. However, the consultation did identify strong support for the Social Housing Development Programme, for wider access to grants, and for the Supporting People programme. In response, the action plan for delivery of the Facing the Future strategy was published in 2013 (DSD, 2013) and detailed a wide range of actions to be carried out within the strategy's five-year time frame, including a number relating specifically to the social sector, including:

- Harmonising standards for social housing construction with those used for private sector housing development.

- Introducing a developer contribution scheme.

- Developing innovative solutions for improving the worst Housing Executive stock.

- Take forward the Social Housing Reform Programme.

13. The Social Housing Reform Programme

In January 2013, the Minister for Social Development, in response to the PwC report, had already made a statement to the Northern Ireland Assembly on his proposals for a Social Housing Reform Programme. The statement was predicated on the PwC conclusion that the existing model and structures did not allow optimal delivery of either strategic housing or landlord services. The Minister emphasised that the programme was concerned with improving the delivery of the Housing Executive's functions and had a number of aims:

- To improve housing structures, making the system financially sustainable for tenants and the Northern Ireland Executive.

- To ensure delivery of well-maintained housing stock and increase investment in social housing more generally;

- To improve the focus on strategy and regional delivery of services; and

- To create space and freedom for social landlords to play a more proactive and innovative role in the communities they serve.

At his briefing of the Assembly's Committee for Social Development on the Fundamental Review of the Housing Executive, which took place on 17 January 2013, the Minister for Social Development was at pains to refute what he termed the unhelpful press speculation on the supposed abolition of the Housing Executive and the consequential job losses. He emphasised that at this stage the proposals had not been agreed and that all that was being offered was a "high level vision" and a "strategic direction of travel". The emphasis was on improving the structures for the delivery of housing functions. However, he did set out a number of more specific proposals, including confirmation of Departmental responsibility for housing strategy, policy and legislation; an independent social housing rent panel to agree rental levels in the social sector; a new regional body to carry out the Housing Executive's current non-landlord functions, including the administration of the housing selection scheme and the assessment of housing need; support for separating out the landlord function with access to private finance – but with no commitment on how many organisations would be created. Finally he proposed the winding up of the Housing Council, to reflect the central role in scrutiny of housing policy and strategy now played by the Assembly's Social Development Committee and the Northern Ireland Assembly itself.

In order to move things forward, the DSD was to establish a programme of work to fully explore the proposals, but the questioning of the Minister which followed this briefing session, once again revealed the depth of inter-party disagreement on the way forward, and even the Minister accepted that "it leaves 1,000 questions still to be resolved" (Northern Ireland Assembly Committee for Social Development, 2013, p.4). It was envisaged that the Social Housing Reform Programme would have a three-stage timeframe and that by March 2014 strategic design requirements would be developed and approved. By March 2015, detailed design plans would be developed and approved, and that the detailed plans would be implemented by March 2017. At the time of writing, this implementation date looks unachievable. The DSD did provide an update on the research and analysis undertaken by them to inform any decisions on the reform of social housing structures (DSD, 2014). It highlighted broad stakeholder support for the principle of separating the regional and landlord functions of the Housing Executive, but notes the considerable support for the retention of the Housing Executive. It acknowledges that "the status of the structure or structures that might deliver the landlord function is perhaps

one of the most contentious issues that the reform programme is considering" (ibid. p.11).

## 14. A profile of social housing in Northern Ireland today

Before turning to examine the future it is important to have an overview of the current structure and recent trends in social housing in Northern Ireland. Since 1997, the Housing Executive has published annually a strategic overview of Northern Ireland's housing market, which draws together a combination of the latest statistics, research and market intelligence. Its most recent edition published in June 2014 provides a useful up to date overview of social housing in Northern Ireland (NIHE, 2014). Comparisons with data from previous years provide some useful insights into the direction of travel for the social housing sector.

The Review and Perspectives (NIHE, 2014) document notes that in March 2013 there were approximately 118,600 occupied, self-contained social rented sector dwellings in Northern Ireland, constituting approximately 16 per cent of the total occupied housing stock. Approximately 88,000 of these dwellings were owned and managed by the Northern Ireland Housing Executive, approximately 20,000 lower than in 2003. The number of homes owned and managed by housing associations has risen steadily, and in March 2013 totalled more than 30,500. In addition, the housing associations also own and manage around 4,500 units of accommodation that are not fully self-contained.

The profile of the social stock in Northern Ireland has in recent years been significantly younger than in GB. The majority of the social housing stock (74%) was built after 1964, and around one third (32%) since 1980. In 2012/13, the Housing Executive had a gross budget of £570 million; of this around 15% (£83 million) was accounted for by funding for the Social Housing Development Programme, and 27% (£153.4 million) was invested in improvements and repairs to Housing Executive stock.

There were 27 housing associations in Northern Ireland at March 2013, including the Northern Ireland Co-Ownership Housing Association (NICHA). The number of registered associations in Northern Ireland has decreased steadily in the last decade (from 39 in 2003) as associations have sought to maximise economies of scale through mergers. The nine largest housing associations, each of which had more than 1,000 units, owned more than four fifths of all housing association stock. Housing associa-

Figure 1   Self-contained Social Housing Stock in Northern Ireland, 2003-2013

Source: DSD Housing Statistics.
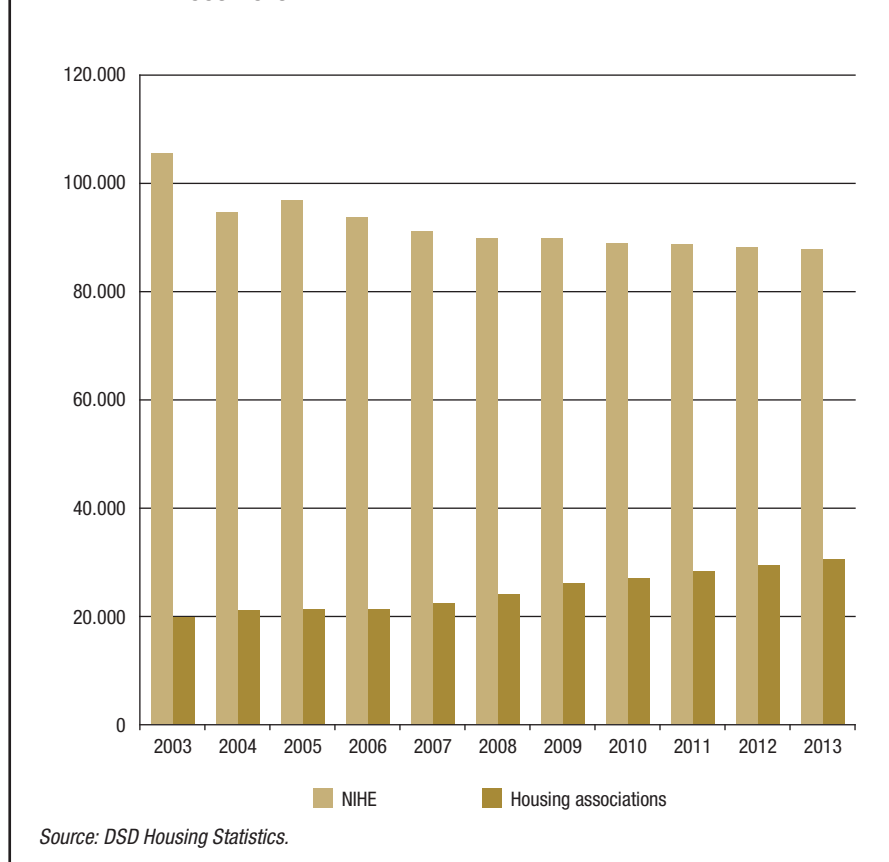
tions have been operating within 'mixed funding' arrangements for more than a decade, obtaining loans from the private market; the private finance component now represents around half of the cost of general needs development.

Almost 23,000 households have purchased their own homes through Co-Ownership since the scheme was set up, with approximately 1,000 of these properties acquired between April 2012 and March 2013, at a value of £105 million. The purchases were facilitated by a total of £38 million in Housing Association Grant. By March 2013, just over 17,000 households had 'staircased' out to become full owners since the scheme began in 1978.

In terms of the supply, housing need is primarily met through the re-let of existing social dwellings to new applicants. The annual total number of re-lets and allocations has varied little over the last ten years at around 8,000.

The total funding committed to the social housing development programme during the year (£159 million) included £74 million of private finance. As well as securing bank loans, associations in Northern Ireland have increasingly

moved towards use of bond finance from the capital markets to secure long-term funding. During 2012/13, housing associations secured £57 million in bond finance at competitive rates through The Housing Finance Corporation (THFC).

During the first three years of the current Programme for Government period (2011/12-2014/15) the housing associations have exceeded the target of a total of 4,000 social dwellings for the three year period. The composition of the social housing development programme varies somewhat year on year, but the majority are new-build, supplemented by what are known as "off the shelf" (new properties purchased from the private sector) and "existing satisfactory" properties which are often ex-Housing Executive properties in high demand areas which were previously sold to a sitting tenant. These new homes will contribute to the Northern Ireland Executive's Programme for Government target to deliver a total of 8,000 social and affordable homes between 2011/12 and 2014/15. Of this total, 4,600 are expected to be for rent, while the remainder will be affordable homes delivered through the Co-Ownership scheme.

15. Conclusion: The future of social housing in Northern Ireland

This article began by looking at the political events which heralded the dawn of the modern era of social housing in Northern Ireland in the late 1960s, events which marked the beginning of thirty years of violent conflict. The two underlying problems identified at that stage (poor housing conditions and religious discrimination in the allocation of housing) have been successfully overcome. The 1990s already saw the beginnings of the peace that was to emerge after "The Agreement" of 1998, but it also saw the emergence of a much more private sector orientated view of the delivery of social housing, with a growing emphasis on "rolling back" the state, introducing private finance and making organisations more efficient and effective.

The House Sales Scheme in Northern Ireland has seen almost 120,000 homes being sold to sitting tenants, approximately equal to the current size of the social sector, and while it was generally seen as having a positive influence on the housing market, insufficient replacement dwellings has contributed to a lack of supply, particularly of family homes, in some high demand areas. Since the property market crash in 2007/08 the much smaller number of sales of Housing Executive homes "has meant a serious reduction in the funding available to invest in improvements to Housing Executive stock" NIHE, 2014, p.82). This has in turn encouraged a selective stock transfer programme to housing associations who can borrow privately to fund necessary improvement work. More recently the impact of government attempts to reduce the outstanding Public Sector Net Debt and its expenditure commitments, including the introduction of welfare reform, have added to the complexity of the public expenditure context for change.

By the turn of the new millennium, and following the publication of the Department for the Environment's Housing Policy Review there was an underlying feeling that Northern Ireland's housing system needed to be more reflective of the systems in the rest of the UK. A series of inquiries, commissions and reports examined a whole range of issues relating to the future structure, funding and supply of social housing in Northern Ireland, and it is in these and the surrounding debates that the evidence for the future trajectory of social housing must be sought. There is certainly considerable agreement on the need to fundamentally restructure the Housing Executive, and in particular the need

to split what became known more recently as its "regional services" from its landlord functions, although the leading trade union in Northern Ireland (Northern Ireland Public Service Alliance) is fighting a rearguard action on this front too, as evidenced by a report it commissioned last year (Smyth, 2013).

However, on most other issues there is still considerable political disagreement. The functions and funding of any new regional body, the number of new landlord bodies, and their relationship to the regional body, their rent structures and their relationship to existing housing associations as well as the future role of the Housing Council are all contentious issues. Ongoing attempts to secure agreement from the main political parties are fraught with difficulties in what is seen by some observers as an increasingly dysfunctional Northern Ireland Assembly Executive, something that has become more apparent in the run up to the recent local and European elections.

It is probably unlikely therefore that in the next five years the structure of social housing, it's funding and supply will be radically different from now. There will of course be quantitative change along the trajectory indicated by the direction of travel since the publication of the Housing Policy Review in 1996. The Housing Executive has already undertaken a "soft split" between its regional and landlord functions and has embarked upon a "journey to excellence" which will "deliver top class regeneration and housing solutions", while the process of mergers between housing associations continues and over the last two years several thousand Housing Executive properties in need of refurbishment have been transferred to housing associations. Ongoing political strife, and more recently the announcement by the Equality Commission that it is to investigate the DSD for procedural breaches in relation to a number of major housing programmes do not bode well for a less politicised environment for the Social Housing Reform Programme. In ten year's time the situation may well have changed for the better. It is to be hoped that more widespread political agreement will have laid the foundations for a well-structured, adequately funded social housing system in Northern Ireland, supported by affordable rents, a system which meets the needs of tenants and the wider community. The critical pre-requisite is the political will to achieve this goal.

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Stock Market fluctuations, housing wealth and consumption behaviour in Turkey

This is the first part of a two-part article.
The second part will be published in the Autumn 2014 issue of Housing Finance International.

↳ **By Çiğdem Akın[1]**

1. Introduction

There is an increasing acknowledgement that fluctuations in asset markets and wealth can influence private consumption behaviour. Over the last decade, as a result of the broadening of equity ownership in the OECD economies, booming stock and real estate markets have been credited for the excessive growth in consumer demand, while weaknesses in consumer activity have been, to a certain extent, ascribed to the slump in the stock markets. The importance of residential property in determining consumer demand has been strengthened as a consequence of financial deregulation in mortgage markets and the growing importance of consumer financing through mortgage equity withdrawal.

The combination of these developments as well as the recent volatility in worldwide equity prices and housing markets following the sub-prime mortgage crisis in the United States have naturally stimulated interest in the potential impact of major movements of asset prices and wealth on the real economy. Despite ample empirical evidence on the role of the banking sector and credit expansion fueling consumption booms, studies investigating the effects of fluctuations in wealth on consumption behaviour are relatively scarce and essentially focus on the OECD economies. Although the emerging markets have shown substantial financial sector development over the last two decades, there are only a limited number of empirical studies

assessing the wealth effects in the context of the emerging markets.

This paper is the first attempt in the literature to investigate the comparative role of the stock market, housing, and financial wealth in determining behaviour in relation to the consumption of durables and non-durables for the Turkish economy based on the permanent-income and the life-cycle hypotheses. The analysis is accomplished by estimating a vector error correction [VEC] model using quarterly time series data for the period 1987-2006. Unlike previous studies on consumption behaviour in Turkey that employed Engle-Granger single equation estimation with annual data, the model developed in this paper uses a longer sample and higher frequency data, and captures the long-run and short-run inter-relationships across variables in system estimation.

Another major contribution of this paper is that the effects of housing wealth are estimated using an originally constructed quarterly housing wealth series based on primary data on occupancy permits, dwelling stock numbers from the building census and residential floor area prices. Furthermore stock market wealth is calculated using stock market capitalization, while the total of time and savings deposits and foreign currency deposits in the banking system are used as a proxy for the financial wealth. The separate models developed for the consumption of durables and non-durables identify the distinct wealth effects of these asset categories. Consistent with

the life-cycle and permanent-income hypotheses, net private disposable income, credit to the private sector and consumer price index-based real exchange rate fluctuations are also controlled as a proxy for income, liquidity constraint and import demand as well as depreciation of non-indexed assets respectively.

The main findings of the paper show that in the long-run, an increase in housing wealth raises the consumption of non-durables, but has no effect on the consumption of durables. On the other hand, consumption of durables is significantly affected by stock market wealth in contrast to the lack of effect on consumption of non-durables. Short-run coefficients indicate positive wealth effects from changes in stock market capitalization and financial savings on consumption of non-durables and durables. However increases in housing wealth lower the consumption of non-durables in the short-run.

The findings of this paper have important policy implications in the context of the 2007 mortgage market legislation in Turkey. This study primarily shows the strength of the housing wealth effects during the period 1987-2006 when mortgage markets were underdeveloped in Turkey. The new law improves the regulatory and legal infrastructure of the primary and secondary mortgage markets and enhances the competition in mortgage loan origination. The law also introduces new housing finance instruments such as adjustable rate mortgages and mortgage-backed securities.

With the availability of long-term housing finance and reduction in the cost of credit for both lenders and borrowers, the new mortgage system is expected to increase the demand for formal housing construction and homeownership in the future. In addition, monetary policy changes and cyclical developments in the economy are likely to have a larger impact on mortgage interest rates, the availability of housing loans, and house prices. The increased use of homes as collateral can strengthen the positive effect of rising housing wealth on consumption over time. Given the existing strength of the wealth effect found even before the establishment of the modern mortgage system, Turkish policymakers need to monitor developments in the real estate market even more closely in the future and take measures to prevent deterioration in lending standards that may fuel house price bubbles and inflationary pressures coming from excess consumption.

The remainder of the paper is organized as follows. Section II gives a review of the theoretical literature. Section III examines previous empirical findings on wealth effects in the OECD and emerging market economies, and reviews the findings about the consumption behaviour in Turkey. Section IV looks at the description of the variables. Section V discusses the results from the vector error correction model. Section VI concludes with policy implications.

2. Review of the theoretical literature

Theoretically, the relationship between increases in wealth, whether from stocks, real estate or other financial assets, and consumption can be modeled using the permanent-income and the life-cycle hypotheses. According to the permanent-income hypothesis by Friedman (1957), the level of household consumption is a function of permanent income, which is composed of the present value of the current and expected future labor income, and the annuity value of the assets. The life-cycle hypothesis by Ando and Modigliani (1963) argues that consumers are assumed to smooth their consumption over the life cycle based on the estimates of permanent income. Therefore, an increase in wealth derived from assets will lead to higher current and future consumption as the consumers tend to spread the increase in their wealth over the rest of their lives. Ownership of equities and investment in housing are considered to be the major components of the household asset portfolio. The following sections examine the theoretical channels, through which fluctuations in stock market and housing wealth can influence the consumer spending.

2.1. The effects of stock market wealth on consumption

For households holding stocks, the impact of a permanent increase in stock prices implies an increase in financial wealth, which consequently stimulates consumer spending. Poterba et al. (1995) argue that the wealth effect from stock ownership in the United States has strengthened over time with the indirect holdings of stocks through mutual funds, private and public pension schemes and insurance plans. The theory also suggests that stock prices can predict the direction of future consumer spending, particularly in durable goods, as a leading indicator of cyclical economic activity, risks, uncertainty for employment prospects, and consumer confidence about the future economic conditions. (See Aylward and Glen, 2000; Henry et al., 2004; Mauro, 2003 and Romer, 1990)

In addition, with the greater integration of world capital markets, the financial wealth of domestic companies and consumers has become more responsive to world or regional financial conditions through international capital flows and financial contagion. While foreign investors account for an important share of market capitalization worldwide, cross-listings of multinational companies and the emergence of mutual funds and pension plans investing in foreign equities increased the exposure of households to fluctuations in foreign stock markets. (See Dornbusch et al., 2000)

2.2. The effects of housing wealth on consumption

Although housing wealth is often considered to be the single most important component of the asset side of a household's balance sheet, a number of theoretical reasons have been put forward to explain why increases in housing wealth have ambiguous effects on consumption.

Home owners may not react to changes in property prices in the same way as they react to the stock market due to certain psychological factors. Households may have a bequest motive for inter-generational transfer of wealth that favors holding appreciated assets until death and may not be interested in reacting to short-run changes in real estate values. The accumulation of housing wealth may be viewed as an end in itself to have a hedge against life's uncertainties. These factors imply that households earmark housing assets for long-term savings while using others like stocks for current expenditures. (See Case et al., 2005) Therefore the consumption effect derived from housing wealth could be smaller than that derived from other assets.

One objection to this argument is that in comparison to stock ownership, housing wealth is held by consumers in all income classes and spread much more evenly over the population while stock market wealth is concentrated in the high income groups. In addition, because house prices are much less volatile than stock prices, changes in housing wealth could be viewed as permanent. Furthermore, homeowners can derive actual and imputed rental incomes from property ownership, which could make up a significant proportion of household disposable income. In these circumstances, housing wealth might have larger impact on consumption than stock market wealth. (See Mishkin, 2007)

Perhaps the most significant channel, through which housing wealth affects consumption spending, is the increase in borrowing capacity for liquidity-constrained households. Increases in house prices raise the value of the collateral available to households and loosen their borrowing constraints by reducing their finance premium. (See, Girouard and Blöndal, 2001)

Mortgage markets can play a pivotal role by transmitting monetary policy changes to interest rates and property values. The capacity of households to adjust their current spending in response to shifting housing prices is strongly dependent on the functioning of mortgage markets, the level of mortgage debt in the economy, distribution of housing wealth, housing transaction costs, and the extent to which homeowners have access to greater liquidity in financial markets through housing equity withdrawal. If mortgage markets allow homeowners to borrow easily against their housing equity, consumption responses to changes in the housing wealth are amplified. (See Cardarelli et al., 2008; and Smith and Searle, 2010).

All of these arguments suggest that it is ultimately an empirical question whether the consumption effect of housing wealth is significantly different from that of stock market wealth.

3. Review of the empirical literature

Several studies have investigated the importance of the stock market and housing wealth effects on private consumption behaviour for selected OECD and emerging market economies. The results from the empirical analyses depend on the depth of the financial system, the importance of stock markets and mortgage financing, role of banking institutions, and the composition of wealth.

3.1. OECD Economies

Lall et al. (2006) show that in more market-based financial systems, households hold a greater proportion of wealth in equities. They are more exposed to changes in stock prices as the degree of stock market capitalization relative to GDP is higher. Furthermore, the housing wealth effects and impact of house price developments on consumption are larger due to developed mortgage financing and instruments for housing equity withdrawal, which increases credit availability in comparison to a bank-based financial system.[2]

The estimates by Catte et al. (2004) confirm the existence of significant housing wealth effects on consumption in market-based G-7 economies like the United States, the United Kingdom, and Canada with a long-run marginal propensity to consume that is in the range of 4 and 8%. In this group, the housing wealth effect appears to be larger than the financial wealth effect. (See Benjamin et.al., 2004). Furthermore Boone and Girouard (2002) find that housing equity withdrawal appears to be significant for these countries. In contrast, in bank-based G-7 economies such as Italy and Japan, marginal propensity to consume out of housing wealth is between 1 and 2% while the consumption response to changes in housing wealth remains insignificant in France and Germany.

The long-run marginal propensity to consume out of financial wealth is significantly lower for G-7 countries with bank-based financial systems except Japan. The estimate varies between 1 and 2 percent for France, Germany, and Italy while it is between 3 and 7% for Canada, Japan, the United Kingdom and the United States. Similarly, Ludvigson and Steindel (1999) find that a dollar increase in the stock market wealth leads to a 3 to 4 cents increase in consumption in the United States.

3.2. Emerging market economies

Despite the fact that emerging market economies have shown substantial financial sector development over the last two decades, they are still characterized by shallower financial markets, limited dispersion of equity ownership, smaller stock markets, and underdeveloped mortgage financing in comparison to the OECD economies. There are only a limited number of empirical studies assessing the link between stock market wealth and private consumption in the context of the emerging markets.

Funke (2002) finds evidence supporting increased sensitivity of private consumption to changes in stock markets in 16 emerging markets after financial liberalization in the 1990s.

Liu and Shu (2004a) report a long-run two-way causal link between stock market performance and consumption for Hong Kong and Taiwan using VAR method, indicating that the stock prices act as a leading indicator of consumption while at the same time movements in stock prices are explained by consumption or real economic activities. In the short-run, a uni-directional causal link is found from consumption to stock prices in Singapore, and from stock prices to consumption in the case of Hong Kong, Japan and Korea. In a companion paper, Liu and Shu (2004b) find only one-way causality from consumption to stock prices for mainland China implying that the wealth effect and leading indicator roles are observed mainly in developed stock markets.

Ahumada and Garegnani (2003) study wealth effects in Argentina during the period 1980-2000 and show that disposable income is the only long-run determinant of private consumption. Changes in the stock market index have no effect on consumption due to limited equity ownership.

A study by the IMF (2008) finds that a rise in the stock market valuation increases private per capita consumption for a panel of 22 emerging markets during the period 1985-2007. The model, however, does not take into account increases in real estate values, structural differences across financial markets, and the relatively low degree of consumer leverage and stock market participation in emerging markets.

Due to data related difficulties in the measurement of real housing values in emerging markets, studies estimating the housing wealth effects on consumption have been limited. The findings by Cheng and Fung (2008) suggest that during the period 1980-2002, a rise in housing prices in Hong Kong had both a negative price effect that is caused by an increase in the cost of housing services and a positive wealth effect on consumption. Kim (2004) finds that elasticity of consumption with respect to housing wealth is larger than the elasticity with respect to stock market wealth in Korea during the period 1988-2003. Aron and Muellbauer (2006) show that in South Africa, the effect of housing wealth is

smaller than stock market wealth, but greater than illiquid financial wealth.

Finally, Peltonen et al. (2009) estimate the housing, stock market and money wealth effects on consumption for 14 emerging markets during the period 1990-2008, using a dynamic panel model. They show that housing wealth effects tend to be smaller for Asian emerging markets while stock market wealth effects are smaller for Latin American economies.

3.3. Turkey

In the context of the Turkish economy, a limited number of studies have looked at the stock market and housing wealth effects on private consumption behaviour. A recent study by Özer and Tang (2009) investigates the relation between aggregate consumption, disposable income, net financial wealth and housing wealth with quarterly data for the period 1987-2007 using the co-integration method. They find that a one percent increase in financial wealth, which is defined as the sum of M2, stocks, government bonds, money market funds and repurchase agreements minus the total household credits, significantly increases real consumption by 0.077%. On the other hand, housing wealth, which they approximate using a weighted average of rental prices and housing investment deflator, has an elasticity of 0.046 but it is statistically insignificant.

Binay and Salman (2008) estimate the wealth effects on total consumption expenditures, consumption in durables, semi-durables, and services for the period 1990-2005, using the rent price index as a proxy for housing wealth, and the return on the Istanbul Stock Exchange as a proxy for stock market wealth. They find that a one percent increase in real estate wealth increases total consumption by 0.2% and semi-durables by 0.13%. They find no real estate wealth effect on consumption in durables, while a one percent change in stock market index increases consumption in durables by 0.03%.

A study by Aydede (2008) looks at the effects of M2/GDP ratio as a proxy for financial wealth and the rental income from dwellings as a proxy for housing wealth on consumption in Turkey using the Engle-Granger methodology. Rental income from housing wealth has a statistically significant effect in all estimations. Consistent with Özcan et al. (2003), the sign

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[2] Consistent with these hypotheses, Ludwig and Sløk (2004) find for 16 OECD economies that the long-run responsiveness of consumption to permanent changes in the stock market and housing wealth tends to be higher for the market-based economies than the bank-based economies. Case et al. (2005) also find a significant effect from housing wealth, but a weak stock market wealth effect for 14 OECD countries.

of the financial wealth variable is negative possibly due to the fact that savings increased in Turkey with the deepening of the financial system. In a similar model, Akkoyunlu (2002) approximates housing wealth using the total number of households and private investment in the housing sector and finds a significant effect from housing wealth on consumption expenditure during period 1962-1994. However, housing assets have a marginal effect when compared to the M2/GNP ratio, which is used as a proxy for liquid financial wealth. Neither Aydede (2008) nor Akkoyunlu (2002) control stock market wealth effects in their research.

Ceritoğlu (2003) studies the impact of financial wealth accumulation on permanent income in the Turkish economy. He concludes that growth of household consumption of non-durables became less dependent on growth of disposable income during the period 1987-2002. Akçin and Alper (1999) found excessive sensitivity of Turkish consumers in relation to disposable income for the sub-period 1987-1995. These two papers indicate that the permanent-income hypothesis has become valid for the Turkish economy after 1995, with the deepening of financial markets and avail-ability of banking sector credit through credit cards and consumer loans. However, none of these studies explicitly look at the effects of stock market and housing wealth.

There is another stream of literature, which analyzes the fact that, from the beginning of the 1990s, capital flows have been inten-sively used as a source of foreign credit by the banking system to finance private consump-tion and investment expenditures in Turkey. (See Çimenoğlu and Yentürk, 2005; İnsel et al., 2004, and Ulengin and Yentürk, 2001). Although Turkish individual and institutional investors have limited exposure to the Istanbul Stock Exchange, as seen in Figure 1, fluctuations in the stock market wealth are primarily induced by international capital flows.

4. Data

This research is based on quarterly data cov-ering the period 1987:Q1-2006:Q4, which specifically refers to the era prior to the enact-ment of the new mortgage legislation. Except for the real effective exchange rate, all nominal variables are in New Turkish Lira and converted into real values using the consumer price index with a base year of 2000. Per capita values are obtained by dividing the real series by quarterly population estimates. All of the series used in

Figure 1   IMKB-100 index and market value of stock units held by foreign banks, brokerage houses or individuals in Istanbul Stock Exchange
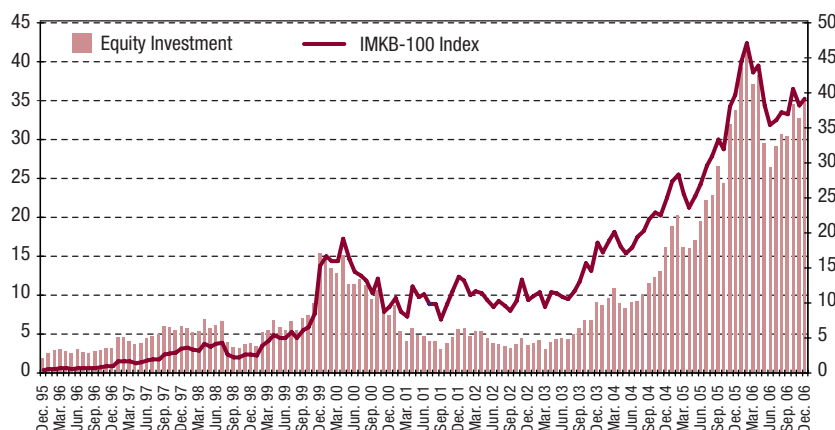
Notes: The market value of stock units held by foreign banks, brokerage houses and individuals under the custody of the Clearing and Settlement Center of the Istanbul Stock Exchange is calculated using data obtained from the Clearing and Settlement Center (Takasbank), Central Registry Agency (MKK), Association of Capital Market Intermediary Institutions of Turkey (TSPAKB) Investor Profile Reports (2001-2006) and TSPAKB Sermaye Piyasasında Gündem, September 2007. See Akın (2009a)

According to Table 1, the share of foreigners reached 65 percent of total market capitalization by 2006. Stock market fluctuations therefore act as a leading indicator of boom-bust cycles and reflect future expectations about domestic and international economic conditions in Turkey.

Table 1   Distribution of total number of investors in the Istanbul Stock Exchange categorized by portfolio sizes and nationality
December 31, 2006

INVESTOR CATEGORY	Portfolio Size (NTL)	DOMESTIC		FOREIGN	
		Number of Investors (%)	Portfolio Size (%)	Number of Investors (%)	Portfolio Size (%)
TOTAL IDENTIFIED ACTIVE INVESTORS	0,01-10.000	83,43	3,85	53,06	0,01
	>1.000.001	0,19	62,37	25,06	99,48
	Total	**99,35**	**34,95**	**0,65**	**65,05**
INVESTMENT FUND	0,01-10.000	14,08	0,003	4,96	0,0001
	>1.000.001	47,09	96,27	72,27	99,53
	Total	**0,02**	**1,06**	**0,11**	**27,39**
CORPORATE	0,01-10.000	62,56	0,01	13,81	0,00
	>1.000.001	12,15	98,74	64,58	99,69
	Total	**0,21**	**10,91**	**0,13**	**37,37**
OTHER INSTITUTIONS	0,01-10.000	35,00	0,01	29,41	0,004
	>1.000.001	23,89	99,12	17,65	87,90
	Total	**0,02**	**2,07**	**0,002**	**0,04**
INDIVIDUAL	0,01-10.000	83,50	6,43	77,75	2,47
	>1.000.001	0,15	38,04	0,66	64,85
	Total	99,10	20,91	0,41	0,25

Source: Central Registry Agency [MKK] and Association of Capital Market Intermediary Institutions of Turkey [TSPAKB].

Notes: See Akın (2009a) for a detailed description of the data used in this table.

the models are in natural logarithms. Dummy variables are introduced to control for the financial crisis in 1994, the contagion effects of the Asian financial crisis, the Russian default in 1998, and the economic crisis in 2001.

Private consumption expenditure is disaggregated into consumption of non-durables and durables because the literature has demonstrated that the sub-components have different responses to wealth effects.[3]

The final consumption expenditures excluding durables, *non-durables*, represents the sum of real per capita consumption on food and beverages, semi-durable and non-durable goods, energy, transportation and communication, services as well as ownership of dwellings. The consumption of durables, *durables*, includes consumption items such as automobiles, electrical or electronic goods, home appliances, and furniture. Following major economic crises during the period 1994-2002, growth of consumption of durables and non-durables declined, but the trend was reversed in 2003 with the implementation of the IMF-sponsored disinflation program and the subsequent fall in interest rates.[4] The net private disposable income, *income*, is introduced as a proxy for the labor income as suggested by the life-cycle and permanent-income hypotheses.[5]

One interesting pattern in *income* series is that net private disposable *income* follows an inverted U shape, the peak of which was reached in 1998. However unlike the consumption series, income continued to fall after 2002.

One possible reason behind the decline is the economic crises, which have led to substantial erosion in the disposable income of households.
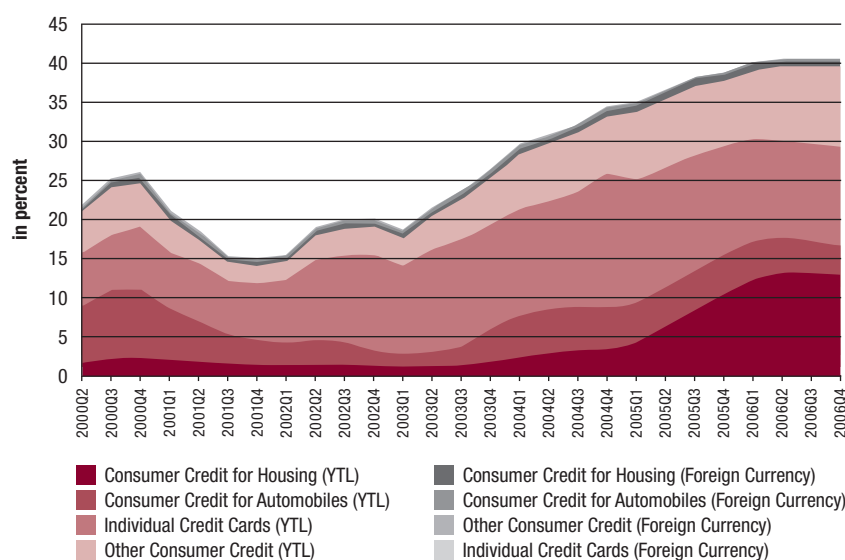
Furthermore, the implementation of the new disinflation program after 2002 introduced strict fiscal discipline forcing the government to run budget surpluses in order to meet the interest payment obligations for government debt (See Voyvoda and Yeldan, 2005). As a consequence, government spending declined and tax collection increased. Furthermore limits on public spending due to the primary surplus requirements weakened the role of fiscal policy in improving income distribution.[6] Another explanation for the downward movement in net private disposable income series was the widening of the trade deficit. During this period, import demand grew, stimulated by the appreciation of the Turkish Lira. The

combined increase in the government savings and current account deficits has reduced net private disposable income since 2002.[7]

For the construction of the housing wealth series in Turkey, this paper follows an original approach although the procedure incorporates some elements from previous studies.[8]

This method focuses only on the urban and legally documented housing wealth based on dwellings with occupancy permits. The estimation is conducted using primary sources on housing stock, residential construction data and average floor area prices obtained from building census, construction and occupancy permit statistics.

Figure 2 **Share of household credit in total credit given by deposit banks**

Legend:
- Consumer Credit for Housing (YTL)
- Consumer Credit for Automobiles (YTL)
- Individual Credit Cards (YTL)
- Other Consumer Credit (YTL)
- Consumer Credit for Housing (Foreign Currency)
- Consumer Credit for Automobiles (Foreign Currency)
- Other Consumer Credit (Foreign Currency)
- Individual Credit Cards (Foreign Currency)

Notes: See Akın (2009b) for an explanation of the data compiled from the Central Bank of Republic of Turkey.

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[3] Theoretically, consumption of non-durables is renewed in subsequent time periods and they provide utility to consumers from the flow of consumption. On the other hand, expenditures for durable goods are considered as another form of household saving or addition to a capital stock, since the utilization periods of these products are much longer compared to other consumption goods. Expenditures for durable goods are more volatile compared to non-durables because they are more influenced by cyclical macroeconomic conditions, and changes in income and wealth. Therefore, there are valid theoretical reasons to build separate econometric models for consumption of non-durables and durables to investigate the wealth effects.

[4] Consumption of non-durables declined on average by 1.5% annually during the period 1994-2002, but has risen at an average rate of 4.3% during the period 2003-2006. The consumption of durables declined by 27% after the 1994 crisis, and declined more than 30% after the 2001 crisis. However, since 2003, consumption of durables has increased at an average annual rate of 18.5%.

[5] There are no official government statistics for net private disposable income. The series are constructed using the methodology by Aydede (2008). The explanation is available in the Appendix 1.

[6] Yükseler and Türkan (2008) show that during the period 2002-2006, the share of tax and social security premiums in GDP increased from 29.7% to 33.1% while the share of education, health care, pension, social transfers, and income support for agriculture in GDP have only increased from 17.1% to 18.8%.

[7] The comparison of average household income to net minimum wage by Yükseler and Türkan (2008) indicates a similar pattern of deterioration during the period 2002-2005. While the

average household income was 6.6 times the net minimum wage in 1994, this ratio declined to 3.47 times in 2005.

[8] Akkoyunlu (2002) estimates the stock of housing by adding the new housing construction i.e. investment on the number of households. This method relies on many assumptions for the growth rate of housing prices, depreciation rate and initial housing stock. She approximates housing prices with the housing investment deflator. However, housing investment costs are likely to lead the actual retail prices rather than determining them contemporaneously. Aydede (2007) estimates the housing stock each year by adding the new dwelling units obtained from occupancy permits over the number of households from an initial census year. Housing wealth is computed by multiplying the estimated housing stock with the prices of the new dwelling units. His measure however underestimates the correct number of households due to the existence of illegal housing and high rural population, for which there is no need for permits. The third method by Özer and Tang (2009) constructs a quarterly housing price index as a weighted average of the leading housing investment deflator and lagging rental price. The housing stock each year is estimated by dividing the population with the average household size, which is interpolated from census data assuming a linear downward trend. The annual increase in the housing stock is then distributed to each quarter in proportion to the occupancy permits. The product of the estimated housing price index and the housing stock is used as a proxy for housing wealth. The main weakness of this methodology is that numerous housing wealth series can be constructed depending on the weighting scheme and the choice of the leads and lags in the housing price index. A sensitivity analysis is therefore needed to examine the robustness of the alternative housing wealth measures.

As a consequence of high population growth, declining household sizes, and massive urbanization, there has been an increased demand for housing in Turkey.[9] Home ownership in Turkey is financed predominantly through family savings and inheritance although subsidized loans by quasi-governmental institutions such as the Housing Development Administration [TOKİ] to building co-operatives are also available. The mortgage market in Turkey has remained underdeveloped due to high inflation and macroeconomic instability. (See Akın, 2009b; Çobandağ, 2010 and Coşkun, 2010) Accordingly, the mortgage debt to GDP ratio was only 0.3% for the period 2001-2005. (See Warnock and Warnock, 2008) The borrowing requirement of the Turkish government and high interest rates offered by the public debt instruments crowded out the availability of funds for mortgage lending.

The Turkish banking system offered only a limited amount of housing credit. When the consumer loan portfolio of the Turkish banking system is examined in detail in Figure 2, it can be clearly seen that the share of housing loans in Turkish Lira constituted less than 2% of total credit before 2003 and only increased to 12% by the end of 2006 with the improvement in the macroeconomic conditions and the decline in interest rates offered by the public sector debt instruments. The cumulative amount of consumer credit reached up to 442.5 million U.S. dollars during the period 2000-2006, of which around 92 million U.S. dollars was allocated as the Turkish Lira based housing loans.

Commercial banks offering housing loans are faced with maturity-mismatch problems due to funding of housing loans from their deposits. In addition, banks have been limited to providing only fixed-rate mortgages under the law, which resulted in lenders originating mainly short-term or foreign currency denominated mortgages. Under these circumstances, the access of wide segments of middle and low income households to housing loans has been impaired because of large down payment requirements, high interest rates and short maturities. (See Tuhral, 2005 and Özsan and Karakaş, 2005) When the maturity structure of housing loans are examined in Figure 3, it can be clearly seen that the Turkis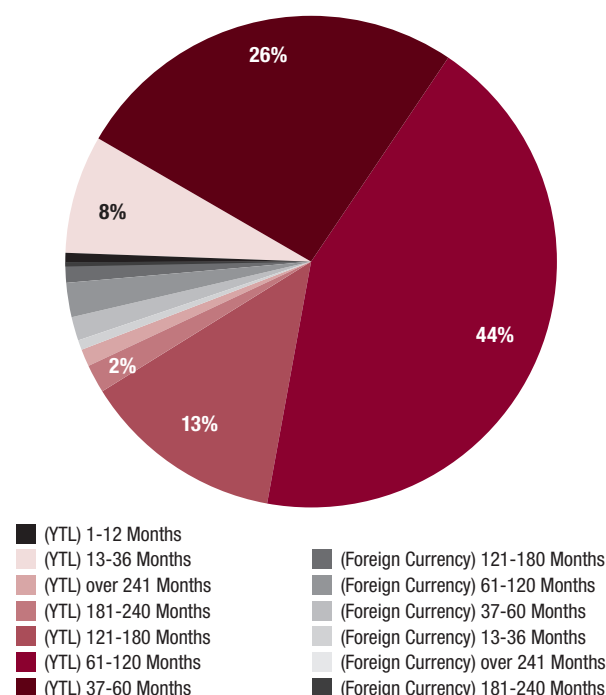h Lira based loans with a maturity of 61-120 months constitute the largest share of 44% followed by loans with a maturity of 37-60 months with a share of 26%. Loans with 121-180 month make up 13% of the housing loans whereas loans with 181-240 months and loans over 241 months make up 3% of the loans in total. Therefore, in comparison to the maturity structure of mortgage markets in developed countries, housing loans with maturities that are longer than 10 years constitute a much smaller portion of the housing loan portfolio of the Turkish banks.

The existence of underdeveloped capital markets and a highly volatile inflationary environment, in which low- and middle-income households have had no or limited access to long-term affordable institutional mortgage financing, have resulted in the construction of squatter settlements and the emergence of low quality and unauthorized housing stock over recent decades. Due to lack of reliable data, there are difficulties in estimating the extent of the unauthorized dwelling stock.[10] As previous literature has done, using the total number of households at an arbitrary initial year and adding the legally completed dwellings mixes the legal and illegal housing stock. The methodology used in this study avoids the potential problems associated with identifying the actual magnitude as well as the value of the illegal housing stock while estimating the housing wealth.

Another important reason for concentrating on authorized housing is that the constructed series will be used in the estimation of the effect of housing wealth on consumption. One of the most important channels, through which housing wealth can affect consumption, is the collateral channel that allows homeowners to borrow from the financial institutions using their homes as collateral. However, for this to happen, the property ownership must be legally documented and the property must possess all the necessary

Figure 3 **Maturity of consumer credit for housing in 2006**

Legend:
- (YTL) 1-12 Months
- (YTL) 13-36 Months
- (YTL) over 241 Months
- (YTL) 181-240 Months
- (YTL) 121-180 Months
- (YTL) 61-120 Months
- (YTL) 37-60 Months
- (Foreign Currency) 121-180 Months
- (Foreign Currency) 61-120 Months
- (Foreign Currency) 37-60 Months
- (Foreign Currency) 13-36 Months
- (Foreign Currency) over 241 Months
- (Foreign Currency) 181-240 Months

Notes: See Akın (2009b) for an explanation of the data compiled from the Central Bank of Republic of Turkey.

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[9] During the past half century, the population of Turkey has almost tripled and reached 72 million in 2005. The total number of households increased from about 5 million since 1960 to 15 million with the average size of households declining from 5.7 persons to 4.5 persons. As a consequence of the rapid urbanization and net migration from rural areas, the relative size of the urban population increased from 31.5% in 1960 to over 67% by 2005. According to the 8th Five Year Development Plan by the State Planning Organization in 2004, housing demand stemming from urbanization, population growth, renewal and natural disasters

between 2000 and 2005 has therefore reached 3,075,000 dwellings in settlements with a population of 20,000 or more. (See Akın, 2009b).

[10] According to 2002 estimates, 27% of Turkey's urban population resides in squatter settlements. While 22% of the urban population of Ankara was living in squatter settlements in 1955, it reached 62.5% in 2002. This figure is estimated to be over 50% in Istanbul and Izmir. (See Başlevent and Dayıoğlu, 2005) This picture shows the gravity of the unplanned settlements in Turkey.

construction and occupancy permits as well as technical standards to be eligible for real estate transactions. Even though commercialization and quasi-legal property ownership exists in squatter settlements in cities, several researchers like Başlevent and Dayıoğlu (2005) argue that ownership of unauthorized housing hardly gives the dweller complete control over the real estate wealth. Therefore extralegal property can be considered as "dead capital." Obviously, ignoring this type of housing stock will grossly underestimate the overall housing wealth in Turkey. However, it will allow us to concentrate on housing wealth that can be transferable to future generations through bequests and used as collateral in financial transactions as well as being recognized by the legal system.

In this study, housing wealth in urban areas is based on the residential dwellings data with occupancy permits. According to Table 2, there were about 13.6 million dwellings in cities and towns in 2000, of which only 33% (4.5 million) have occupancy permits in Turkey.[11]

The number of urban dwellings with occupancy permits is multiplied by the average dwelling price in 2000 in order to get the value of total dwellings in that year. This figure is converted into total floor area in square meters by dividing by the average price of one square meter in 2000. The flow of total square meter floor area of residential construction according to the occupancy permits is available on a quarterly basis from 1993 onwards from the State Planning Organization. The growth rates of OECD production of dwellings are used to interpolate the annual data from the State Statistics Office before 1993 into a quarterly series. In order to construct the floor area of the dwelling stock in each quarter, residential construction by square meter is added (or subtracted for periods before 2000:Q4) to the stock of residential floor area using one percent quarterly (4% annual) depreciation. The choice of depreciation rate is based on the 2000 building census, which shows that 80% of the dwelling stock is less than 30 years of age and the average age of buildings in the five largest cities is less than 25 years.
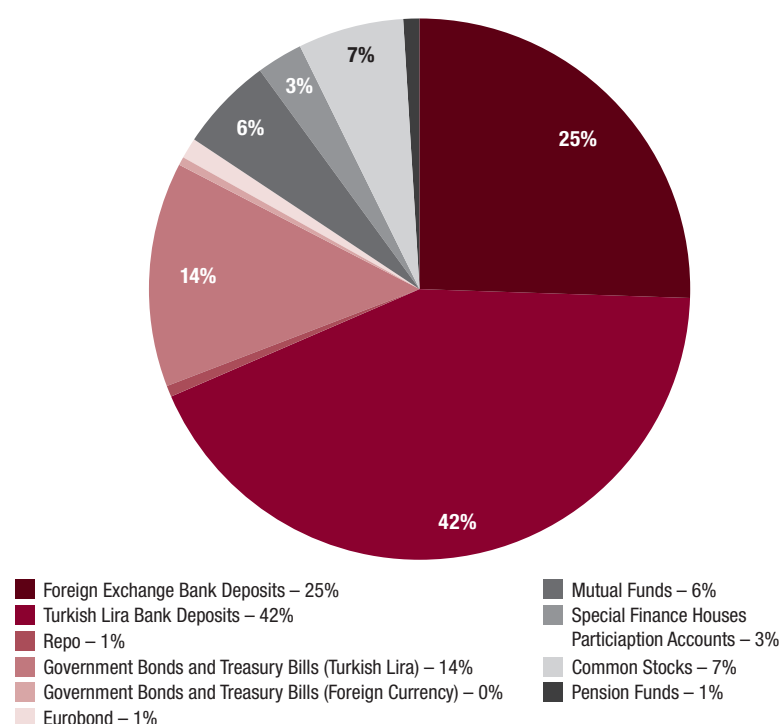
As the final step to compute the real value of the housing stock, the total floor area is multiplied by the price per square meter for each quarter. Nominal prices are deflated using the CPI. Per capita measures were obtained by dividing the real series by the population.

Table 2   Characteristics of home ownership and the housing stock in Turkey

BUILDING CENSUS	2000
Home Ownership in Cities and Towns (in percent)	59,8
Tenants in Cities and Towns (in percent)	31,6
Number of Dwellings (millions)	16,2
Number of Dwellings in Cities and Towns (millions)	13,6
Number of Construction Permits in Cities and Towns (millions)	8,4
Number of Occupancy Permits in Cities and Towns (millions)	4,5
Share of Construction Permits in Dwellings of Cities and Town (in percent)	61,53
Share of Occupancy Permits in Dwellings of Cities and Towns (in percent)	33,27
Share of Occupancy Permits in Construction Permits (in percent)	54,08

Notes: See Akın (2009b) for a detailed explanation of the data compiled from the Undersecretariat of Housing and 2000 Building Census conducted by State Statistics Office.

Figure 4   Investment portfolio choices of domestic residents in 2006

- Foreign Exchange Bank Deposits – 25%
- Turkish Lira Bank Deposits – 42%
- Repo – 1%
- Government Bonds and Treasury Bills (Turkish Lira) – 14%
- Government Bonds and Treasury Bills (Foreign Currency) – 0%
- Eurobond – 1%
- Mutual Funds – 6%
- Special Finance Houses Particiaption Accounts – 3%
- Common Stocks – 7%
- Pension Funds – 1%

Notes: State Planning Organization (DPT) Developments in Financial Markets, January 2005 and December 2006. Mutual funds data is from the Capital Markets Board of Turkey and data for common stock holdings of domestic investors is from the Central Registry Agency [MKK] and Takasbank. Government Bonds and Treasury Bills represent the market value of public securities held under the custody of banks on behalf of domestic investors. Common Stocks also include the market value of equities held in the portfolios of banks and financial institutions. See Akın (2009a).

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[11] In other words, 67% of dwellings are unauthorized for residential use. However, one can also plausibly claim that the urban dwelling stock with occupancy permits in 2000 contain some of the legalized squatter settlements following the amnesties during the period 1984-1998. This one time legalization of certain squatter settlements will simply increase the level of the stock measure without affecting the year to year changes as a result of legal construction. See Akın (2009b) for a detailed analysis of housing market characteristics in Turkey.

None of the series in the study are seasonally adjusted.

The movements of the estimated *housing* wealth series, housing, are consistent with developments in the residential construction sector in Turkey during the period 1987-2006.[12] The measure gives a richer illustration of the quarterly cyclical developments compared to the previous studies, which only used annual data. Therefore higher frequency information can provide more confidence in econometric analysis of housing wealth effects on consumption.

The *savings* series represents the total per capita time, savings and foreign currency deposits as a proxy for financial wealth. As can be seen in Figure 4, due to the chronically high inflation and underdevelopment of institutional investors such as private mutual and pension funds in the last 20 years, financial savings in Turkey have been predominantly channeled into the banking system and partly invested in foreign currency denominated accounts.

The *isemcap* series represents the stock market capitalization of the Istanbul Stock Exchange as a proxy for the stock market wealth. The strong persistent positive growth rates in stock market capitalization have been followed by market downturns triggered by the foreign capital outflows during the financial crisis years in 1998 and 2001. Stock market capitalization started to recover during the period 2003-2006 as the Turkish economy improved.
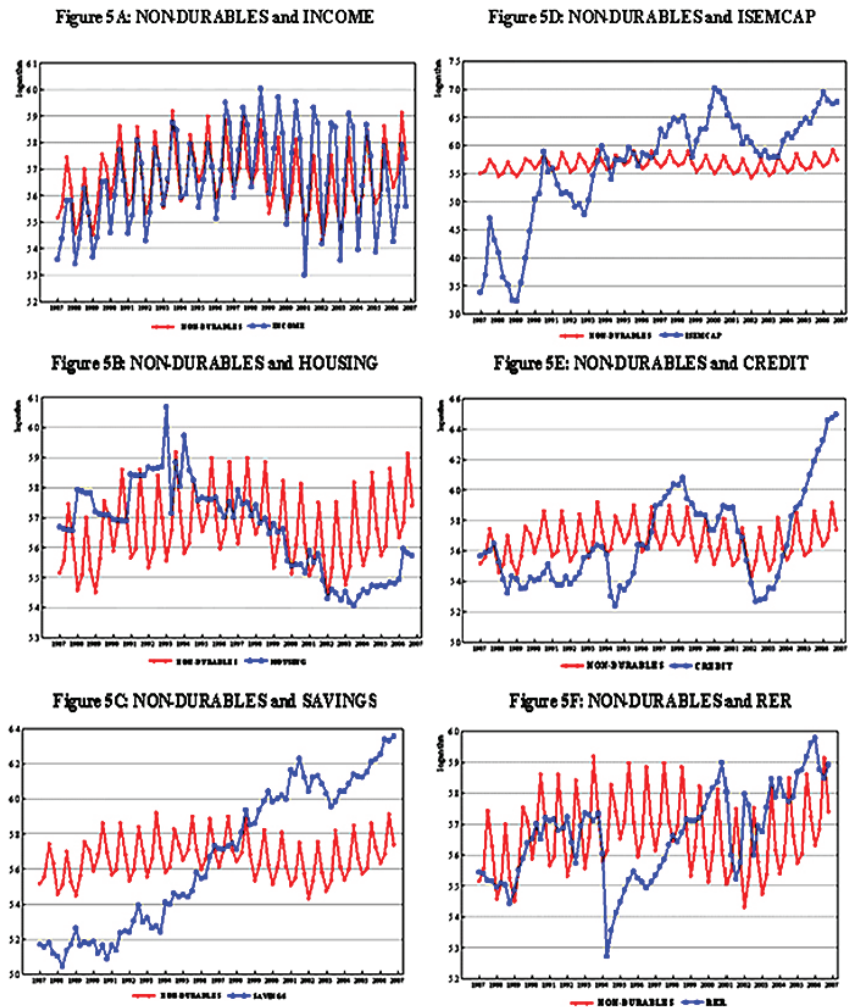
The bank credit to the private sector, *credit*, is used as a proxy for the liquidity constraint. According to the life-cycle hypothesis of Ando and Modigliani (1963), greater access to credit allows households to smooth consumption between periods of high and low income. Since 2003, there has been a clear upward trend in the availability of banking credit to the private sector.[13]

The CPI-based real effective exchange rate series, *rer*, is an indicator of international competitiveness, which represents the relative purchasing power of the Turkish Lira vis à vis the trade partners. An appreciation increases the demand for imported goods. It also reflects the uncertainty associated with inflation and the degree of wealth perception associated with the depreciation of non-indexed financial assets.

Figure 5 and Figure 6 display the joint plots of the consumption series with the variables used in the econometric estimation.

Figure 5   Joint plots of the explanatory variables with consumption of non-durables

Figure 5A: NON-DURABLES and INCOME

Figure 5D: NON-DURABLES and ISEMCAP

Figure 5B: NON-DURABLES and HOUSING

Figure 5E: NON-DURABLES and CREDIT

Figure 5C: NON-DURABLES and SAVINGS

Figure 5F: NON-DURABLES and RER

Notes: These figures show the joint plots of non-durables with income, housing, savings, isemcap, credit, and rer used in the econometric model. All of the variables are derived by taking the natural logarithm of the real per capita values of the variables except for CPI based real effective exchange rate. The means of the explanatory variables are scaled to the mean of the dependent variable, non-durables, in order to compare the movements in the series.
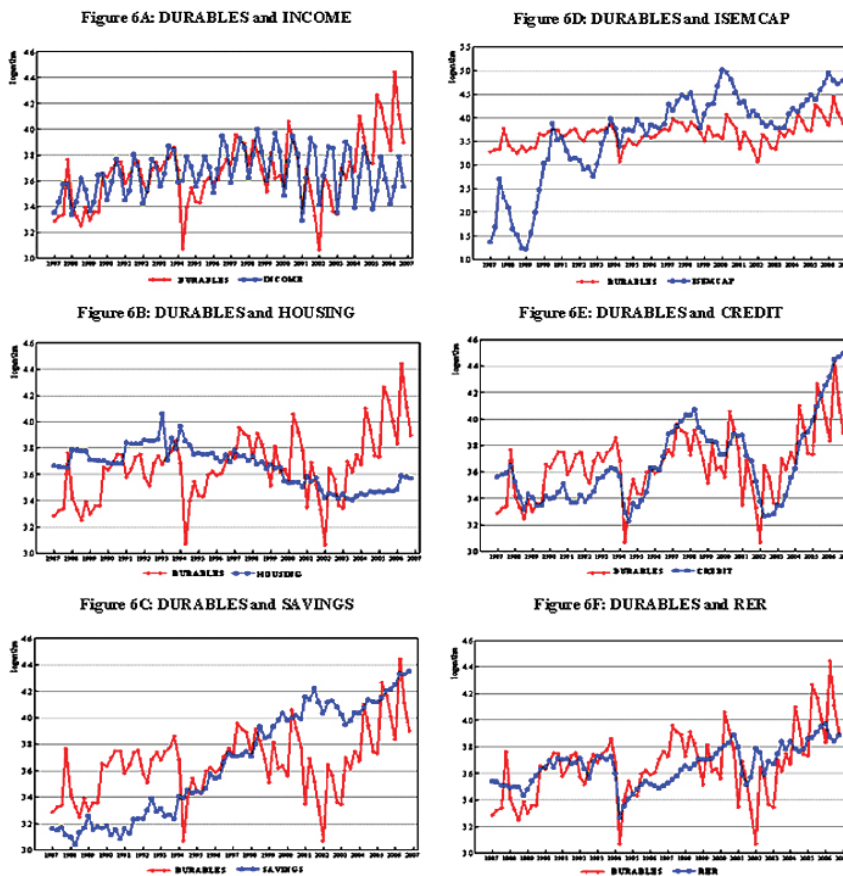
The second and final part of this article will be printed in the Autumn 2014 issue of Housing Finance International.

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[12] Following the liberalization of the economy in the 1980s, there was a boom in housing starts for a decade, which coincided with rapid urbanization and mass migration from rural areas. The availability of government loans extended to the construction cooperatives provided an additional impetus to the housing sector until the mid-1990s. The Turkish economy experienced several negative shocks that adversely affected the construction sector following the financial crises and the earthquake in 1999. The combined effects have been captured successfully by the persistent fall in the estimated housing wealth series from 1994 until 2002. After the disinflation program in 2003, housing wealth started to increase with macroeconomic stability, revitalization of the residential construction sector, availability of housing credit from the banks, and the mass housing projects by the government.

[13] According to Başçı (2005), the successful implementation of the disinflation program and the associated reduction in interest rates have caused banks to replace government securities with predominantly private credit when interest rates on government securities declined. The availability of global liquidity provided additional credit to the banking sector. Between 2003 and 2006, the average annual growth of per capita private bank credit was 34%. According to Figure 2, consumer loans and individual credit cards combined increased from less than 20% during the 2001 crisis to roughly 40% of total credit by the end of 2006.

Figure 6   Joint plots of the explanatory variables with consumption of durables

Figure 6A: DURABLES and INCOME

Figure 6D: DURABLES and ISEMCAP

Figure 6B: DURABLES and HOUSING

Figure 6E: DURABLES and CREDIT

Figure 6C: DURABLES and SAVINGS

Figure 6F: DURABLES and RER

Notes: These figures show the joint plots of durables with income, housing, savings, isemcap, credit, and rer used in the econometric model. All of the variables are derived by taking the natural logarithm of the real per capita values of the variables except for CPI based real effective exchange rate. The means of the explanatory variables are scaled to the mean of the dependent variable, durables, in order to compare the movements in the series.

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