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Building Blocks for a Better Functioning Housing Market in Chile

Aida Caldera Sánchez

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BUILDING BLOCKS FOR A BETTER FUNCTIONING HOUSING MARKET IN CHILE ECONOMICS DEPARTMENT WORKING PAPERS No. 943

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ABSTRACT/RÉSUMÉ

Building blocks for a better functioning housing market in Chile

Chile has made good progress in improving housing conditions, but still around 10% of the population lives in either overcrowded houses, or of inadequate quality and/or with poor access to basic services. Improving further housing conditions of the poor is important for curbing poverty and reducing inequality. First, better targeting of housing subsidies will be essential to free resources for those truly in need. The government should also rethink subsidies, which are currently directed exclusively at ownership. Means-tested rental cash allowances coupled with more balanced tenant-landlord regulations would strengthen the rental market, thus enhancing residential mobility and potentially reducing segregation. Second, better enforcement of social housing quotas for new building projects coupled with investments in urban renewal and social services in poorer neighbourhoods and developing unused land in urban areas could also help to reduce inequalities. Third, effective thermal and energy standards for buildings would improve the quality of the housing stock, protect public health and reduce air pollution. Limiting construction in fault lines and risky coastal areas could also increase Chile's resilience to natural disasters. Fourth, taxing housing so owing is not favoured over renting would reduce distortions and make the tax system less regressive. Finally, enhancing the responsiveness of housing supply to demand would ensure there is a good match between housing construction and demand, and avoid that public support gets capitalised into housing prices.

JEL Classification: E21, G21, H24, L74, R21, R31, R38, R52

Keywords: Chile, housing market, housing prices, housing policies, housing subsidies, mortgage markets, property taxation, rental market, rental allowances.

* * * * *

Principes fondamentaux pour améliorer le marché du logement au Chili

Si les conditions de logement se sont bien améliorées au Chili, quelque 10 % de la population vit encore dans des habitations surpeuplées, de mauvaise qualité et avec un accès limité aux services de base. Il importe de poursuivre l'amélioration des conditions de logement des plus démunis pour endiguer la pauvreté et réduire les inégalités. Premièrement, il sera indispensable de mieux cibler les aides au logement afin de dégager des ressources pour ceux qui sont réellement dans le besoin. L'État devrait également repenser les subventions, qui ne s'adressent actuellement qu'aux propriétaires. En associant le versement aux locataires d'allocations sous condition de ressources et une réglementation plus équilibrée entre preneurs et bailleurs, on dynamiserait le marché locatif, renforçant par là-même la mobilité résidentielle et limitant probablement la ségrégation. Deuxièmement, une meilleure application des quotas de logements sociaux aux projets de construction et la mise en valeur des friches urbaines pourraient aussi contribuer à réduire les inégalités. Troisièmement, des normes thermiques et énergétiques efficaces pour les bâtiments amélioreraient la qualité du parc de logements, préserveraient la santé publique et diminueraient la pollution atmosphérique. En limitant les constructions sur les lignes de fracture et les zones côtières dangereuses, on pourrait également accroître la capacité du Chili à rebondir en cas de catastrophe naturelle. Quatrièmement, une fiscalité du logement qui ne favoriserait pas les propriétaires au détriment des locataires réduirait les distorsions et rendrait le système d'imposition moins régressif. Enfin, une meilleure capacité d'adaptation de l'offre à la demande de logements garantirait la bonne adéquation entre la construction et les besoins résidentiels et éviterait la capitalisation des aides publiques dans le prix des logements.

Classification: E21, G21, H24, L74, R21, R31, R38, R52

Mots clés: Chili, marché du logement, prix des logements, politiques du logement, aide au logement, marchés hypothécaires, fiscalité immobilière, marché immobilier locative, allocation logement.

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BUILDING BLOCKS FOR A BETTER FUNCTIONING HOUSING MARKET IN CHILE

By Aida Caldera Sánchez¹

Chile has made important advances in improving access to housing during the past two decades. Twenty years ago about 20% of the Chilean population was living in substandard housing conditions, either in deteriorated housing, overcrowded houses or in informal settlements lacking access to essential services such as electricity, sewerage, or drinking water (Ozler, 2011). Chile has put in place ambitious housing subsidy programmes, that coupled with investments in infrastructure and broader social policies, have helped to improve Chileans' living conditions. A key contributing factor has also been Chile's sustained good macroeconomic situation and stability that has resulted in increased household income and savings and reduced the cost of access to housing finance. Today most Chileans live in adequate housing and the number of people living in informal settlements has sharply decreased. But, a still substantial 10% of the total population lives in poor housing conditions.

House price growth has remained contained keeping housing affordable for most Chileans. For poorer households, however, housing is too expensive. Chile has a range of housing subsidies to help the less well-off access housing in ownership, but these do not always reach those in most need, as a substantial part of subsidies goes to upper-middle income groups. At the same time, public support has not always led to sustainable solutions, with recipients slipping back into poor housing conditions. And, by leading to a peripheral location of subsidised housing far from jobs and public services, public support may have hindered social mobility and a faster decline in poverty and inequality. Improving access to housing for the poor will be important if Chile wants to reduce inequalities and poverty. Poor housing quality and overcrowding can hurt people's health and their opportunities to access high quality education, undermining their employability. Housing support is also excessively focused on promoting homeownership. The rental market is tiny, there are no housing allowances for tenants and taxation excessively favours owner-occupied housing over other investments. This can restrict people's mobility, the efficient allocation of labour and hurt economic performance in the long-run.

This paper examines the main features of and recent developments in the Chilean housing market. After assessing the factors hindering access to better housing for poorer people, it discusses policy options to improve the functioning of the housing market so it can deliver reasonable quality housing at affordable prices. The analysis draws on information on housing policies collected through a survey administered to OECD member countries in spring 2010, and extended to Chile in 2011 for the purpose of this paper. The information allows a comparison of key policy settings that influence the functioning of the housing market, including public housing support for low-income households, housing taxation, transaction costs and rules guiding the functioning of the rental market.

^{1.} Aida Caldera Sánchez is an Economist in the Economics Department of the OECD. This paper was originally produced for the 2012 OECD Economic Survey of Chile and published in January 2012 under the authority of the Economic and Development Review Committee (EDRC) of the OECD. The author would like to thank the Chilean authorities, as well as Nicola Brandt, Andrew Dean, Bob Ford, Patrick Lenain, Slaven Razmilic, and members of the EDRC and other colleagues for valuable comments and discussions. The author would also like to thank Roselyne Jamin for excellent statistical assistance and Heloise Wickramanayake and Olivier Besson for excellent secretarial assistance.

A significant share of the population lives in poor housing conditions

Today most Chileans live in adequate housing, though, there is still a substantial number (Figure 1) living in poor housing conditions, mostly overcrowded housing, but also housing built with inadequate materials or with poor access to basic services. Both housing size and access to basic facilities have substantially increased over the last decades, in line with Chile's income, but remain poor by international standards (Figure 2). For instance, while the percentage of households with access to safe water increased from 62% to 94% between 1960 and 2009, this trend is uneven across geographical areas, in particular between urban and rural areas. About 40% of rural households lacked access to clean water in 2009 and 34% of them had poor sanitary conditions (Universidad Andrés Bello, 2011).

As per cent of population

Figure 1. Share of population living in poor housing conditions

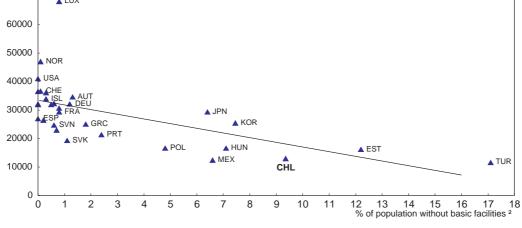
Source: OECD calculations based on data from Ministry of Housing.

The Chilean government has traditionally measured the number of households that live in very precarious housing conditions through a concept called the "housing deficit". Government estimates indicate the stock of such inadequate housing at the end of 2009 was over 400 000 houses, out of which over 80% were overcrowded and the remaining of very poor quality (Figure 3). The most acute housing needs are concentrated among low-income households. The bottom two income quintiles account for about 60% of housing needs. Households headed by a woman, people with disabilities, senior citizens and ethnic minorities also have a higher incidence of worst-case needs than other households (MINVU, 2010). Others are "drop-ins" – popularly called *allegados* – who seek a temporary housing solution by living with friends and family or building additional rooms in their backyards. A smaller group of people in need of better housing are those living in illegal settlements (*campamentos*). Although the total number of people living in illegal settlements has sharply decreased and today represents a small share of the population (less than 1%).

Figure 2. Housing quality

2009

GDP per capita, constant PPP A. Rooms per person versus GDP per capita 70000 LUX 60000 50000 40000 CHE AUT DEU AUS CAN SWE DNK NLD FAN ESP 30000 ▲ NZL CZE 20000 EST TUR 10000 0.6 0.8 1.0 1.2 1.4 2.4 1.6 1.8 2.0 2.2 2.6 Rooms per person ¹ GDP per capita, constant PPP B. Population without basic facilities versus GDP per capita 70000 60000 50000



- 1. Average number of rooms shared per person in a dwelling.
- 2. Measured as the percentage of dwellings not having an indoor flushing toilet for the sole use of their household. Source: OECD Compendium of well being indicators (2011); World Bank, WDI Databank.

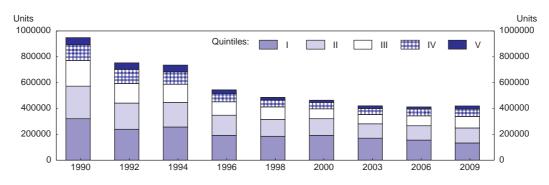


Figure 3. Stock of inadequate housing¹

1. It includes the number of: *i*) very crowded housing units, where households share their home with a second household that is income-dependent on the host household *ii*) very crowded housing units, where households share their home with two or more households, and where each household has its own budget independently of the host household *iii*) poor quality housing units, for example lacking basic facilities or built with low-quality materials and informal housing.

Source: Ministry of Housing.

The earthquake and tsunami that hit Chile in 2010 increased the number of people living in poor housing conditions by about 25%. Given the scale of the disasters the loss of human lives, though tragic, was relatively small at around 600 victims. This owes much to Chile's good building codes for earthquakes. Over the years, Chile has adopted better building codes, which have been periodically upgraded, to take into account previous earthquake experience and international innovations in earthquake mitigation technologies. This proved essential in the last earthquake (American Red Cross, 2011; Kovacs, 2010). Building codes are also well enforced. Chile has a law that holds building developers liable for the first 10 years of a building's life for any losses resulting from inadequate application of the building code during construction. About 370 000 houses (approximately 10% of the total housing stock) were destroyed or damaged, many of them as a result of the tsunami. Many of the destroyed houses belonged to relatively poor people and had been built with bad quality materials and located in more risky areas (Mideplan, 2011). Others were old houses made of dried clay that did not withstand the earthquake. More generally the disasters generated important economic losses worth around 30 billion USD (15% of GDP) and imposed a large reconstruction burden on the state (Box 1).

Box 1. Economic consequences of the 2010 earthquake and tsunami

In February 2010 Chile was hit by the strongest earthquake in its recent history and a tsunami that destroyed several towns. In the immediate aftermath of the earthquake, output in the most affected areas decreased sharply, but the impact on the national economy was limited and short-lived. Still, the disasters generated important economic losses worth around 30 billion USD (15% of GDP), as estimated by the Chilean government, with the largest part (about USD 21 billion) due to the destruction of infrastructure, a bit less than half of it borne by the public sector:

- Direct costs: The earthquake destroyed major infrastructures, including ports, roads, energy and communications, as well as an important number of houses, hospitals and schools. The total worth was about USD 21 billion (about 12% of 2009 GDP). Half of these losses were in public infrastructure. In the private sector, the most affected industries were agriculture, winery and fisheries, where ¼ of the installed capacity was destroyed. Tourism was also hit, as the affected regions are important tourist destinations. Housing was strongly affected by the disasters. Around 370 000 houses were destroyed or damaged (MINVU, 2010; Muir-Wood, 2011), approximately 10% of the total housing stock.
- Damages to short-term economic activity: In the immediate aftermath, output in the most affected areas
 decreased sharply contributing to a 3% drop in GDP in the first quarter of 2010. Despite of this temporary
 drawback the impact on the national economy was limited and the economy swiftly rebounded in the second
 quarter growing by 5% on year-average in 2010. Compared to episodes of natural disasters in other OECD
 and emerging economies (OECD, 2004), the events did not lead to significant worsening of the trade deficit

or increases in the country risk premia. Consumer confidence and the stock market also rebounded quickly after the disasters.

- **Impact on potential output**: Such disasters reduce potential growth by injury and loss of life and damage to a country's stock of tangible fixed assets. The central bank estimates that the 2010 disasters reduced Chile's potential output by 1-1.5% during 2010, mainly due to the destruction in the capital stock. The capital stock was reduced by 3% of the net capital stock of 2009 (Central Bank of Chile, 2010).
- The burden of reconstruction: The earthquake damages were partly covered by insurance. However, a big part of the financial burden from reconstruction fell on the state (Table 1). The government was quick to implement a substantive reconstruction plan, focusing on rebuilding public infrastructure and providing financial assistance to families in the lowest three income quintiles who needed to rebuild their homes. The reconstruction is being financed from a number of sources: temporary as well as permanent increases in taxes and budget reallocations, including from a national fund that allocates a percentage of national copper sales to the army (Fondo Ley Reservada del Cobre). Also private donations and other sources including a small withdrawal from Chile's copper fund (Table 1). Most public infrastructure projects have been completed and over 70% of housing subsidies allocated. Most housing reconstruction though still needs to start. The Ministry of Housing plans to allocate the remaining housing subsidies (70 000) and launch most of the housing construction works by the end of 2011. The objective is to conclude the reconstruction works by 2014, which seems feasible.

Table 1. Public sources of financing and reconstruction spending, 2010-13

		Milllions of 2010 U.S. Dollars
Tax receipts ¹		3 625
Expenditure reallocations		2 920
Fondo Ley Reservada Cobre ²		1 200
Donations (Fondo Nacional de Reconst	truccion)	308
Other sources		378
Total financing		8 431
Emergency costs		443
Total capital spending net of efficiency	gains	7 988
Housing		2 310
	Health	2 142
	Education	1 206
	Public infrastructure	1 170
	Other	1 160
Total spending		8 431

^{1.} Higher tax receipts include temporary increases in corporate and immovable property taxes (*Impuesto Territorial*), a reform in the mining tax, permanent increases in tobacco taxes, and reduced tax advantages.

Sources: Ministry of Finance (2010) and (2011).

Low quality of housing materials not only increases risks in the event of an earthquake, but also energy consumption and pollution. Indoor pollution is high in Chile due to inefficient heating systems (often based on firewood) which, coupled with poor insulation, provide little heating but emit high levels pollutants that threaten health (Sanhueza *et al.* 2006; Adonis, 2009). Particulate matter (PM10) levels are by far the highest in the OECD (Figure 4), and exceed three times the level the World Health Organisation considers safe for health. Poor insulation also increases energy consumption and undermines Chile's efforts to reduce CO₂ emissions and improve its environmental sustainability.

^{2.} Allocates 10% of CODELCO's sales, the national copper producer, to the army.

70
60
50
40
30
20
10
SWE IRL LUX FRA AUS FIN HUN DEU CZE PRT OECD ITA ESP AUT NLD GRC POL CHI
NZL EST GBR SVK ISL CAN NOR DNK USA BEL CHE JPN ISR SVN KOR MEX TUR

Figure 4. Exposure to air pollution by particulates

Micrograms per cubic meter, 20081

Average concentration of particulate matter (PM10) in cities with population larger than 100 000.

Source: OECD, Compendium of well being indicators (2011).

House price growth has remained contained keeping housing affordable for most Chileans

As opposed to many OECD countries, where prices rose strongly since the mid 1980s, house prices have remained broadly stable in Chile during the last decade (Figure 5) in line with fundamentals (Parrado *et al.* 2009). This has kept housing affordable for most households. Price increases have been mostly driven by higher household income and lower long term interest rates. However, this evidence should be treated with caution as Chile's house price data are patchy and only cover the Santiago region.

Index 2000=100 225 225 Chile NLD AUS USA 200 200 DFU BFI CAN JPN 175 175 ESP FRA 150 150 GBR 125 125 100 100 75 75 50 50 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

Figure 5. Real house prices to real wages

 For Chile house price data is average house price in CPI-Indexed Units of Account (UF) per square meter for property in the region of Santiago. Other countries real house price index.

Source: Collect GFK; INE; OECD Economic Outlook Database.

A deeper housing finance market has facilitated access to credit

Lower borrowing costs are a result of Chile's successful macroeconomic policies and institutions, which have granted stability, alongside the increase in the depth and efficiency of the mortgage market. Over the past two decades the size of the Chilean mortgage market (as measured by the stock of outstanding mortgages) has more than doubled to 20% of GDP, becoming the largest market in the region

(Figure 6). Confidence in the government's macroeconomic policies and the creation of mortgages indexed to inflation have reduced credit and liquidity risks and encouraged the emergence of long-term institutional investors, in particular pension funds, which have added stability and liquidity to the market by investing in guaranteed bonds and to a lesser extent mortgage-backed securities. This has allowed banks to offer long-term financing with little or no maturity mismatch in their balance sheets. Greater competition has also led to higher efficiency in mortgage lending (Morandé and García, 2004). This together with bigger economies of scale derived from a larger number of mortgage transactions and volumes of financing has led to historically low borrowing costs (Figure 7), allowing a greater number of households to access credit.

120
100
80
60
40
20
0 ARG BRA MEX SVN SVK HUN POL CHL AUT GRC FRA LUX BEL DEU FIN ESP PRT NOR USA SWE GBR IRL DNK NLD

Figure 6. The size of the mortgage market in selected countries

Stock of outstanding mortgage as a % of GDP, 2009

Source: European Mortgage Federation Hypostat 2009; Galindo et al. (2011).

Cheaper access to credit has led to an increase in household indebtedness, which has almost doubled in the last ten years. Yet, at 70% of disposable income in 2010, it remains lower than in most OECD countries. The banking sector is the most important source of household mortgage credit (85%), but at less than one third of all bank assets (Central Bank of Chile, 2010), its exposure to the housing sector seems limited. Credit risk has been contained by several factors, including more prudent maximum loan-to-value ratios (75% or 80%) than in most OECD countries and mostly fixed inflation-indexed rates (Table 2), protecting borrowers from short-term interest rate fluctuations. Partly because of this, Chile's housing market fared relatively well during the recent global financial crisis (Galindo *et al.* 2011; Micco *et al.* 2011). Another contributing factor to reduced financial risk is the private banking sector's focus on relatively less risky consumers and products (Aparici and Sepúlveda, 2010).

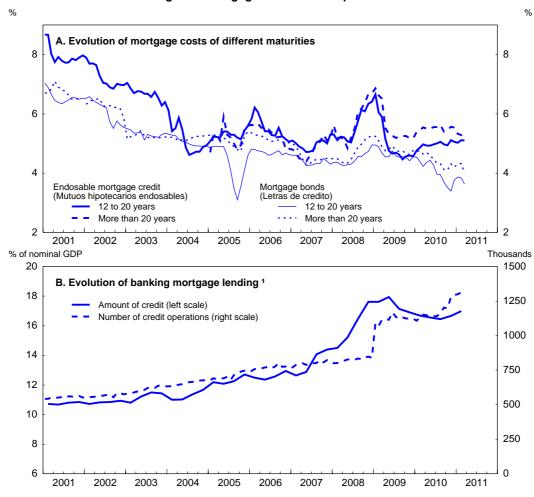


Figure 7 Mortgage market developments

1. Includes endorsable mortgage credit, mortgage bonds and non-endorsable mortgage credit.

Source: Superintendencia de Bancos e Instituciones Financieras (SBIF) Chile; Banco Central de Chile, Informe de Estabilidad Financiera (2010-I).

Table 2. Mortgage and financial market features in OECD countries

	Regulatory limits on loan-to value	Prevailing type of interest rate	Typical maturity (years)	Mortgage equity withdrawal
Australia	100% if insured	Mainly variable	25	Yes
Austria		Fixed (75%); Variable (25%)	25	No
Belgium	None	Fixed (75%); Mixed (19%); Variable (6%)	20	No
Canada	95% if insured	Fixed and Mixed (92%); Variable (8%)	25	Yes
Chile	75% and 25% of the borrower's income for loans under UF 3 000. And 90% for state subsidised housing	Fixed (57%); Mixed (4%); Variable (39%)	25	No
Czech Republic		Fixed (Mixed)	20	
Denmark	0.8	Fixed (75%); Mixed (10%); Variable (15%)	30	Yes
Estonia		Variable	30	
Finland	None	Fixed (2%); Variable (97%); Other (1%)	17	Yes
France	60% to be eligible for mortgage- backed securities 60% to be eligible for mortgage-	Fixed/Mixed/Other (86%); Variable (14%)	15	No
Germany	backed securities	Mainly Fixed and mixed	25	No
Greece		Variable	15	No
Hungary		Variable (Mixed)	11	
Iceland		Tanasio (ilinoa)		
Ireland	80% (only for building societies)	Variable (70%); Rest mainly mixed	20	Limited
Israel	co, a (e.m.) for building economics	Variable	15; 30 (max)	
Italy	80% (100% if guaranteed)	Fixed (28%); Rest mainly mixed	15	No
Japan	None	Fixed (36%), Mixed and Variable (64%)	25	No
Korea	40-60%	Variable	3; 20 (max)	
Luxembourg		Variable	20 - 25	
Mexico		Variable		
Netherlands	None	Fixed (74%), Mixed (19%), Variable (7%)	30	Yes
New Zealand		Mainly fixed	25	
Norway		Mainly variable	17	Yes
Poland		Variable	5 - 32.5	
Portugal		Variable	25 - 30	
Russian Federation		Fixed/ Variable	15 - 20	
Slovak Republic		Variable		
Slovenia		Variable	10	
Spain	80% to be eligible for mortgage- backed securities	Variable (≥75%); Rest mainly mixed	20	Limited
Sweden	None	Fixed (38%); Mixed (24%); Variable (38%)	25	Yes
Switzerland	None	Mainly variable	15 - 20	
Turkey		Variable	10	
United Kingdom	100% (only for building societies)	Mixed (28%); Variable (72%)	25	Yes
United States	90% if guaranteed	Fixed (85%); Mixed (15%)	30	Yes

Source: ECB (2009), Catte et al. (2004), de Serres et al. (2007), Financial Stability Report Central Bank of Chile (2008) and Central Bank of Chile (2009)

A more efficient and resilient mortgage market could improve access to credit

Chile has one of the most developed and deepest housing finance markets in the region (Galindo et al., 2011), nonetheless there is room for improvement. The government has actively contributed to the development of the mortgage market through several instruments. These include generous housing subsidies and mortgage credit guarantees. The government has also channelled vast amounts of money through the state-owned bank (Banco Estado) (Galindo et al., 2011), which has particularly contributed to improving access to credit to lower income families. Banco Estado accumulated

about 80% of all mortgage credits for the two lowest income quintiles at the end of 2010 and about ¼ of the value of outstanding mortgages. The state-owned bank also channels most housing subsidies. Using the state-owned bank to fuel the mortgage market has contributed to promote housing finance and limited private-sector lending risk. But it has also concentrated risk in the state bank, which has a share of risky mortgage loans – with 90 or more days in arrears – that is about three times higher (about 11% in September 2011) than in private banks (4%), according to official data. It may have also reduced competition in the mortgage market for middle and low income households (Pardo, 2002). This could lead to higher mortgage costs and a lower range of available mortgage products in this market segment. The government should ensure there is sufficient competition in the banking sector and to rely more on targeted housing support rather than on the provision of mortgage credit through the state bank.

An efficient mortgage market, with low borrowing and transaction costs, is key for a well functioning housing market. It can improve access to credit for middle-income household but also free resources so the government can focus on helping the truly disadvantaged or credit constrained households. For instance, average transaction costs for buying a home (e.g. stamp duties, legal fees, notary fees etc.) are low in Chile relative to other OECD countries (Figure 8). And the fact that Chile subsidises the administrative costs and guarantees loans for subsidy recipients, has reduced transaction costs by reducing the legal and economic risk to issue credit to these households (IADB, 2007). But Chile could further reduce transaction costs and mortgage approval times through better mortgage contract standardisation; better access to information on the credit history of a potential client, or for instance its tax credit record (IADB, 2007). This would improve the functioning and transparency of the mortgage market and would also facilitate regulatory oversight.

%

16

14

12

10

8

6

4

2

0

BEL GRC ITA ESP MEX LUX FIN DEU POL IRL SWE SVN KOR NZL ISR NOR ISL
FRA AUS TUR CZE PRT HUN AUT CAN NLD CHE CHL JPN SVK USA EST GBR DNK

Figure 8. Transaction costs
As per cent of property value 2009¹

1. 2011 for Chile.

Source: Calculations based on OECD Housing Market questionnaire.

Chile should also improve the efficiency of its legal system as it affects borrowing costs and financing costs for lenders and investors, and can be key in mitigating lending risks. Effective foreclosure procedures are important in this respect. Mortgage foreclosure procedures are clearly defined in the Banking Law and are relatively fast in Chile compared to neighbouring countries, nonetheless eviction procedures can take more than a year (IADB, 2007; Lex Mundi, 2008) and could be improved. Chile has an executive judgement procedure in which non payments can be automatically relayed to the court (Morandé and García, 2004), however, the owner protection legislation has precedence over an executive procedure and allows the owner to appeal, thus postponing a court decision. Chile could consider implementing a stronger foreclosure law by, for instance, speeding up legal procedures. This would make the legislative framework

more balanced, protecting borrowers, but also giving lenders support to grant credit. It would also facilitate orderly and efficient mortgage foreclosures and keep borrowing costs down.

Thanks to careful regulation, Chile's banking system is sound with low exposure to household debt or the complex assets that have shaken financial markets in other OECD countries. However, the supply of mortgage loans has tended to move towards higher loan-to-value ratios, and this should be monitored. Indeed, while until 2000 almost 70% of all mortgage supply was through letters of credit subject to prudent maximum loan to value ratios (75%) and fixed interest rates, currently most housing credit is through nonendorsable mortgage credits, which have greater flexibility in terms of maturities, types of interest rates (variable and mixed) and higher loan-to-value ratios, even above 100% for creditworthy borrowers (Matus *et al.*, 2010). Although mortgages with a loan-to-value ratio above 100% are still marginal, and average loan-to-value ratios remain low relative to other economies (73%, see Table 2), these developments should be closely monitored. Mortgage information should be tracked through credit registries. This would allow lenders to gauge the probability of default. Information on housing transactions, including prices, should also be tracked and made available, as it helps appraisers value prospective house purchases and allows lenders to keep track of the value of their collateral.

For poor households housing remains too expensive

Chile has experienced a remarkable decline in poverty over the last 20 years, but poverty and inequality remain high by OECD standards. Because low income households have lower permanent income, wealth, and often have informal jobs, for them the mortgage market is a too costly option to finance their home. For instance, given current mortgage market conditions for first-home buyers, households in the bottom quintile would need to spend about 60% of their total monthly income in servicing a loan for a relatively cheap home (Figure 9).

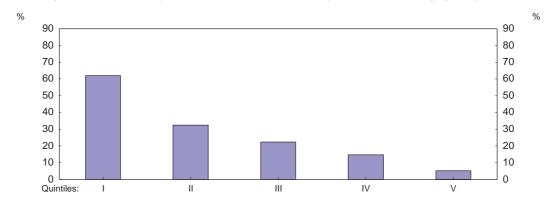


Figure 9. Affordability: share of household monthly income for mortgage payments

Calculations based on information from the Superintendencia de Bancos e Instituciones Financieras about conditions prevailing
in the mortgage market at the time (LTV of 75%, fixed interest rates, 20 years maturity, 4.99% annual interest rate). House price
1 000 UF (USD 45,000), about the average price of an apartment in a cheap area of Santiago.

Source: OECD calculations.

Housing subsidies have widened access to housing...

Chile has put in place ambitious housing subsidy programmes that have helped to widen access to housing during the last two decades. The main objective has been to deliver home ownership and reduce the significant stock of inadequate housing (see Figure 3). The instruments to achieve this objective have shifted over the years. Public provision programs – directly building houses or supporting supply – were the main tool during the 90s. These have been eliminated and replaced by demand-side targeted subsidies

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or vouchers. The government gives subsidies to first-time homebuyers who want to buy or build a home and who fulfil some basic eligibility criteria (Box 2), including some minimum savings. Subsidies at up to 75% of the housing price are quite generous to ensure that beneficiaries do not run into high debt burdens. Only relatively better-off subsidy beneficiaries – in the second income quintile or above – are in fact allowed to take on a mortgage to complement the subsidy. To reduce credit risks further and ensure banks lend to subsidy beneficiaries, the government also gives some guarantees to the bank. Such housing subsidy schemes are common in many Latin American countries. The main idea is that applying for a subsidy will, first, encourage families to save and, then, owning a home will improve their material and financial capital, helping them to overcome poverty.

Box 2. Chile's housing subsidies

There is a wide range of housing subsidy programs in Chile. The main features of the most important programmes in terms of public expenditure and number of subsidies (*Fondo Solidario de Vivienda, Título I* and *Título II*) are sumarised in Table 3. First-time homebuyers can apply for a housing subsidy as long as they comply with some minimum eligibility criteria (Table 3). Subsidies are then allocated based on scores taking into account different criteria, until funding is exhausted. Candidates who didn't receive a voucher remain in the queue. Beneficiaries are issued a voucher with an expiry date (after 21 months), which they can use to shop around for a home or to build their own home, adding their savings and – in the case of better-off households – their credit to their funding.

There are also other housing-related subsidies:

- **Subsidies to improve housing quality**: through upgrading, extension and thermal retrofitting (*Reparación y Mejoramiento, Ampliacion de Vivienda, Acondicionamiento Térmico*).
- Subsidies for the maintenance and repair of community facilities, public spaces or street pavements: (*Programa Barrio*).
- Leasing subsidy: The idea of the leasing programme (Leasing Habitacional) is to help families who cannot
 afford saving any money, even if little, to access homeownership. Recipients sign-up a rental contract with a
 real estate company with the obligation to buy the home at the end of the contract. With the subsidy
 recipients can pay the rental charges and eventually the home.
- Residential mobility programme: The residential mobility programme (Movilidad Habitacional) allows
 households who bought their home with a subsidy to sell it and buy another (more expensive) home with the
 subsidy.

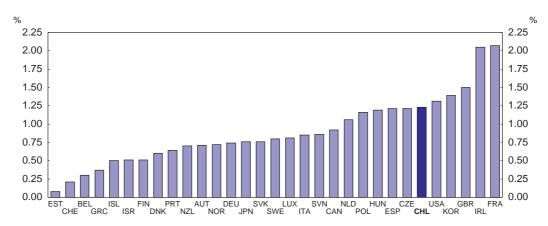
	Without credit for vulnerable groups (Fondo Solidario de Vivienda)	With optional credit for emerging groups (<i>Titulo I</i>)	With optional credit for middle-income households (<i>Titulo II</i>)
Official target population	Most vulnerable families that cannot obtain a mortgage	Monthly household income between 250 000 and 450 000 pesos (<i>i.e.</i> 3th, 4th and 5th income decile in 2009)	Monthly household income between 450 000 and 900 000 pesos (i.e. 6th, 7th and 8th income decile in 2009).
Minimum eligibility criteria	received a housing subsidy i	imum required savings. Not being a l n the past. Being part of a family gro ld, indigenous minorities, widows). F east 5 yrs old).	up (except for people with
	Max 8 500 points of carencia habitacional in proxy means test <i>Ficha de Proteccion Social</i>	Max 13 484 points in proxy means test <i>Ficha de Proteccion</i> <i>Social</i>	No ceiling in terms of point in proxy means test Ficha de Proteccion Social
List of criteria to determine priority	i) Family size and characteristics (e.g. single person household, disability); ii) Social and housing vulnerability (e.g. covercrowding, housing type, access to water, sanitation).	i) Family size and characteristics (e.g. single person household, disability); ii) Average savings; iii) Waiting time; iv) Socio-economic characteristics based on the Ficha de Proteccion Social; v) Political prisoner (Informe Valech); vi) Completed military service as of 2004.	i) Family size and characteristics (e.g. single person household, disability); ii) Average savings; iii) Waiting time; iv) Socio-economic characteristics based on the Ficha de Proteccion Social; v) Political prisoner (Informe Valech); vi) Completed military service as of 2004.
Minimum savings requirement	10 UF (USD 455)	30 UF (USD 1 363)	50 UF (USD 2 272)
Maximum housing price	Between 750 UF-950 UF (About USD 40 000)depending on location	1 000 UF (USD 45 444)	2 000 UF (USD 90 888)
Maximum subsidy	Between 280 UF-420 UF depending on location.	Between 450 UF-650 UF (USD 20 449-USD 27 266) depending on location.	Between 300-350 UF (USD 13 633- USD 15 905 depending on location.
Subsidy top- ups (maximum values)	Disability (20 UF). Location subsidy (200 UF). Housing size larger than 37,5 m2 (50 UF).	Disability (20 UF). Location subsidy: if located in <i>Proyecto de Integración Social</i>) (100 UF).	Disability (20 UF). Location subsidy: if located in Proyecto de Integracion Social (100 UF) or <i>Zona de Renovacion Urbana</i> or Desarrollo Prioritario (300 UF) or Zona de Conservacion Historica (300 UF).
Mortgage Ioan	Not allowed	Allowed	Allowed
Application	Individual or organized group	os though the Ministry or an eligible i	nstitution.

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In many ways Chile's housing subsidy programmes have been successful in improving the living conditions of the poor. At 1.1% of GDP in 2010, public spending on housing support is much higher than in many OECD countries (Figure 10). This is partly because housing support in Chile is for buying a home rather than for renting, as in most OECD countries, and therefore more costly. But it also indicates the high importance the government places on solving the housing problem. The stock of deficient housing has substantially fallen over time (see Figure 3). About 70% of all building permits granted between 1976 and 2007 were for houses built with some sort of public support, mostly through demand subsidies, but also directly built by the state (Simian, 2010). Many subsidies have been handed out (Figure 11). Although illegal settlements still exist, they are mostly a problem of the past, and basic services are available to most citizens (see Figure 2).

Figure 10. Public spending on housing and community amenities

As per cent of GDP, 20091



1. 2006 for Canada and 2005 for New Zealand.

Source: OECD, National Accounts Database; Chile, Estadísticas de las Finanzas Públicas 2000-2010.

2011²

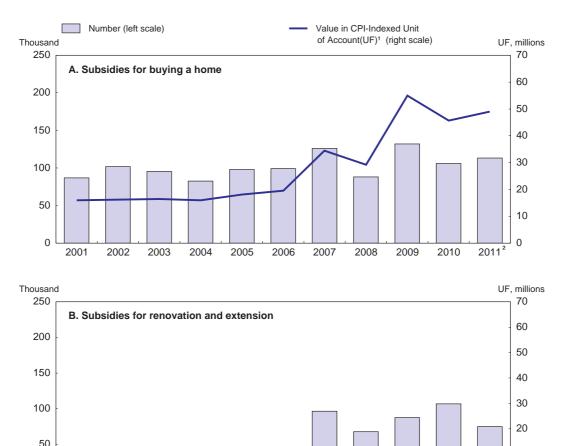


Figure 11. Number and value of housing subsidies

1. The CPI-Indexed Unit of Account (UF) was 22136 Chilean pesos on 9 November 2011.

2. Projected spending.

Source: Observatorio Habitacional, MINVU.

An assessment of Chile's housing subsidies regarding key design features as well as their performance in terms of equity – targeting and coverage – and efficiency shows that subsidy programmes are fairly transparent and visible (Table 4). For instance, eligibility criteria and the dates for application are published on the internet and available from the regional offices of the Ministry of Housing and municipalities upon request. Beneficiaries are chosen in open competitions by the regional offices of the Ministry of Housing and the list of beneficiaries is published. However, the eligibility and allocation criteria change frequently and there is a large variety of subsidies with different eligibility criteria. This makes it difficult for potential beneficiaries to apply, in particular when considering that limited literacy is widespread among low-income households in Chile (OECD 2000). It also complicates administration of these programmes.

Table 4. An assessment of Chile's housing subsidy programmes: key features, equity and efficiency

Criterion	Description	Assessment
Transparency	Clarity of the programme's eligibility and participation criteria; Effective implementation by relevant authorities.	Fair. Eligibility and allocation criteria are published on the internet and available from the regional offices of the Ministry of Housing and municipalities upon request. Beneficiaries are chosen in open competitions by a clearly defined body and the list of beneficiaries published. However, subsidy programmes and eligibility criteria change relatively often and the weights given to different selection criteria is not obvious, which may make it difficult for people with poor skills to apply.
Visibility	What is the degree of political visibility of the subsidy? Are citizens/taxpayers aware of the true cost of the subsidy?	Fair. Subsidies are explicit and up-front thus visible and the total amount of subsidies spending is reported in the budget and annual accounts of the Ministry of Housing and on the Ministry of Housing website. However, there are no ex-post evaluations of programme effectiveness.
Administrative simplicity	Whether subsidies are easy and relatively inexpensive to manage; households are aware of the existence of the subsidy: the average household needs help to register in the program?	Poor. There are many different categories of housing subsidies (with different subcategories) which can make it hard to administer. Households can ask for information and help to file their application and to municipalities and other associations, but the usefulness of this support depends on available resources.
Flexibility	Extent to which programmes can be modified or stopped without major political unrest or disruptive effects on the economy.	Fair. Subsidy programmes are defined in legislative decrees and do not need Congress approval in order to be modified. Programmes have been substantially modified over the past 30 years. To the extent that subsidies have been in place for over 30 years and housing represents an important share of total construction stopping them altogether would be unpopular and likely affect economic activity.
Targeting/Vertical equity	Who are the official target of the subsidy? Are these the neediest? Does the subsidy not only use income criteria but gives different treatment for different types of households (e.g. households with children, female households).	Poor. In 2011, although 56% of all funding for housing is targeted to the first two income quintile (Fondo Solidario de Vivienda), the remaining 44% is targeted to the quintiles above that up to the 9th decile. The selection procedure gives higher points for family size and other features but evidence suggests the means proxy test (Ficha de Proteccion Social) is an unreliable measure of income and household situation. There is no housing assistance for renters (17% of the population).
Coverage	What share of the population effectively received the subsidies?	Poor. Although targeting has improved over time, earlier evidence suggests a significant proportion of subsidies still goes to the uppermiddle income groups and only about 22% of beneficiaries come from the bottom quintile (e.g. Aparici and Sepúlveda, 2010).
Efficiency	Could the same resources be used more efficiently? Are improvements in housing conditions sustainable? Is there evidence of crowding out of multiplier effects of spending)?	Poor. The number of bad quality housing has substantially decreased over time. But some of the targeted households can access housing through the finance market at reasonable costs. Some subsidised housing units are empty, others are rented, and some deteriorated fast. An excessive focus on homeownership may have squeezed the rental market.

Source: OECD

...but subsidies do not always reach those most in need

At the same time Chile's housing subsidies do not always reach those most in need. Although the targeting of housing subsidies has improved over time, earlier studies show that a significant proportion of subsidies go to the upper-middle income groups (about 30%) and only about 22% of the beneficiaries come from the bottom quintile (Table 5). This is in part because by definition programmes are not targeted only to the most vulnerable, as in other OECD countries (Scanlon and Whitehead, 2011), but are more universal. In addition to poorer households, better-off households belonging to the fourth and even the fifth income quintile are also eligible (Table 3). Maximum eligible house prices are meant to dissuade wealthier households from applying for subsidies, but this ceiling is fairly high (about 90 000 USD), and the

maximum size of the subsidy is respectable (15% of the price of the house), which makes applying attractive even for better-off families. For instance, the average price of an apartment in the Metropolitan region of Santiago, which also includes very wealthy communes, such as Vitacura, is only about 30% more expensive than that.

Table 5. Recipients of housing subsidies by income quintile (% of total subsidies)

I	II	III	IV	V
21.8	23	23	20.1	12.1

Source: Aparici and Sepúlveda (2010) based on CASEN (2003).

The selection and allocation mechanisms that determine who is eligible and who has priority to receive housing support have some deficiencies that may help to explain why some subsidies leak to richer families. There is no household-income ceiling. Instead eligibility for most programmes is based on discrete cut-off scores based on a proxy means test (*Ficha de Protección Social*) – that assigns scores to families based on employment, actual and imputed potential income, health status and family composition – together with some basic eligibility conditions, such as minimum savings, lack of homeownership and of prior housing subsidy receipt (Table 3). Evidence suggests that there is a lot of fraud; and the government is currently working on simplifying the system and implementing better controls.

Scores that are used to allocate subsidies are based on a wide range of criteria that varies from programme to programme. All programmes give points for family size and socio-economic characteristics. Sometimes, but not always, housing characteristics, waiting time, savings and the score from the *Ficha de Protección Social* are also taken into account. For instance, the government has recently added housing characteristics (*e.g.* crowdedness, poor access to basic services, poor building quality) to the list of eligibility criteria to allocate subsidies for low-income households and this is welcome. These characteristics are related to true housing needs and are arguably difficult for the household to manipulate and easy for authorities to verify. But housing characteristics are not taken into account to allocate subsidies to higher income households. Instead other features are used, which have little obvious justification from a poverty alleviation point of view, such as completion of military service (Table 3). Although these criteria are meant to target housing support better, their complexity may also render application more difficult to understand for poorer households and possibly more costly to administer.

The fact that too many people are eligible may also explain why, regardless of positive macroeconomic developments and general improvements in affordability, the number of people waiting for a subsidy has sharply increased over time. The number of applications for housing subsidies has increased over the last ten years, according to the OECD housing questionnaire, and the number of savings accounts opened for the purpose of obtaining a housing subsidy has increased sevenfold since 1990, to more than 3 and ½ million in December 2010. At the average rate at which subsidies were allocated during the past 10 years (Figure 11) the average wait for any kind of subsidy would be more than 25 years, if all the people with a housing saving account were to be allocated a subsidy.

Making housing subsidies more efficient and equitable through better targeting

The government is making efforts to improve the targeting of housing subsidies. It has just reformed housing support for the poorest 20% of the population, and redesigned and increased the number of subsidies for households with incomes above that. As a result, in 2011, 56% of housing subsidies are officially targeted to the first income quintile (through the *Fondo Solidario de Vivienda*), which is welcome. Yet the government should consider further narrowing the targeting of housing subsidies exclusively to low income households, while reconsidering subsidies that may go to the 40% richest

families, as the middle income housing benefit. Resources are limited and the number of people waiting for a subsidy greatly exceeds the number of available subsidies. Households in the top quintiles do not generally have problems getting a mortgage and benefit more from favourable taxation.

At the same time the government should also ensure that eligibility criteria truly identify those most in need of housing. Eligibility criteria could be simplified further, by replacing the proxy means test (*Ficha de Protección Social*) by information on declared income for other social cash transfer programmes. While this might potentially require substantial investments in authorities' ability to verify claims, this would hardly be more expensive than investing in the authorities' capacity to verify information in the *Ficha de Protección Social*.

More should be done to streamline and evaluate the effectiveness of housing support. Many programmes have been phased out in the past (e.g. progressive housing programme) and new programmes have been introduced (e.g. Programa con crédito opcional para sectores medios) without a clear assessment of why the programme needed to be replaced or whether it had succeeded. This risks undermining the transparency of the system and public trust in it (Castañeda and Lindert, 2005). Housing subsidies have also been used for a wide range of objectives: help the poor, increase homeownership, improve the quality of the housing stock, and encourage the private sector to finance low-income housing. These are common and natural objectives of housing policies in countries with large housing deficits. But a housing policy with multiple objectives makes housing support more difficult to manage, more costly and harder to evaluate. Refocusing public housing support on helping low-income households would improve upon this. The authorities could also evaluate ex-post the coverage of subsidies and their effectiveness in improving housing conditions. They could use existing panel household data (CASEN) to check whether those who received the subsidy were truly the neediest and whether their housing conditions significantly improved.

Housing support would also be less complicated as well as easier to administer and to evaluate if the broad set of subsidies were streamlined. For instance, evidence by Simian (2010) suggests that the residential leasing subsidy (*Leasing Habitacional*) is very poorly targeted and could be phased out. Even if this program was meant to help the poorest, the number of subsidies is very small, the take up low and money mostly goes to households in the top two income quintiles.

Housing subsidies have not always led to better living conditions

At the same time, improvements in housing conditions have sometimes not been sustainable. To provide housing for those in need and maintain the number of subsidised units built each year, the government financed small and sometimes poor quality housing (Vargas, 2006). The deficient quality of construction and upkeep in some cases led to premature deterioration causing the beneficiaries to slip back into poor housing conditions (Marcano and Ruprah, 2008).

The government often also bought the cheapest available land without providing the basic public infrastructure. This concentrated the poor in certain areas, often in the outskirts, especially in the city of Santiago, where the expansion of the city has been mainly driven by housing policy (Sabatini *et al.*, 2001; Gilbert 2004). What is more, rising land prices meant that construction companies built subsidised housing projects further and further away from the city centre where land was cheaper, and supplied lower quality of housing to keep prices low and margins high (Morandé and Gimenez, 2004). This led to greater inequality, not only in terms of income, but also in education performance. Santiago's richest commune has an average household income eight times higher than the poorest and household heads have twice as many years of education (OECD, 2009). These inequalities risk being reinforced over generations, in a society where social mobility is already low (Figure 12). For instance, richer municipalities have better

education and achieve better results on basic education performance tests than poorer ones (OECD, 2009). Poor access to high quality education risks transmitting poverty from generation to generation.

Intergenerational earnings elasticity: estimates from various studies

0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
DNK NOR FIN CAN AUS SWE DELL ESP FRA USA ITA GBR CHU BRA
0.0

Figure 12. Social mobility: strength of the link between individual and parental earnings¹

The height of each bar measures the extent to which sons' earnings levels reflect those of their fathers. The estimates are the
best point estimate of the intergenerational earnings elasticity resulting from an extensive meta-analysis carried out by Corak
(2006) and supplemented with additional countries from d'Addio (2007), Dunn (2004) for Brazil and Nunez and Miranda (2010) for
Chile. The higher the value, the greater is the persistence of earnings across generations, thus the lower is the intergenerational
earnings mobility.

Source: D'Addio (2007), Dunn (2004), Nunez and Miranda (2010).

Given that many subsidised housing residents commute to the centre of Santiago for work, the peripheral location of subsidised housing has also led to substantial costs in terms of time, congestion and pollution. About half of all the jobs in the Santiago region, where over 50% of the Chilean population live, are located in the central communes of Santiago, Providencia and Las Condes (Rodríguez and Vignoli, 2008). Long commuting distances not only imply greater costs in terms of money and time for subsidy recipients, but also greater pollution for all citizens. Air pollution, caused by transport and the use of small-scale burning of wood or coal, is an important problem in Chile, and in particular in Santiago, which is one of the most polluted cities in the world. High pollution can lead to a wide range of diseases and premature deaths (Sanhueza *et al.* 2006). Some studies even suggest that high levels of pollution may account for almost half of annual deaths in the city of Santiago (Ostro, 2008; Mancilla, 2007).

Better standards to improve housing quality and protect public health

Chile has learnt from its experience and improved the quality of subsidised housing. It now imposes quality and size standards on subsidised housing and grants subsidises for upgrading and expanding housing size. More could be done, though, to bring the quality of the housing stock to minimum standards and, in particular, to reduce pollution (see Figure 4). The government wants to improve energy efficiency through subsidies for constructing and retrofitting for low income households to improve thermal insulation and reduce energy leakages. It also promotes the installation of solar thermal systems for public, commercial, household and industrial buildings. These efforts are welcome, but are likely to cover only a small part of the housing stock. The government should combine these efforts with basic building standards for ground heat transfer, air infiltration, ventilation and heating. These are common in most countries and have proven useful to reduce energy leakage and pollution. A thermal quality regulation defining the standards for ceilings, walls, windows and floors was approved in 2007. However, standards are relatively weak and they should be stricter to meaningfully improve energy efficiency (Collados and Armijo, 2008).

Chile is a very seismic country making solid building structures and the quality of construction materials key construction features. Chile has good and well-enforced building codes. To limit the cost of

possible future earthquakes or tsunamis, the government should keep building codes up to date and enforce their application, as this proved an essential element limiting deaths in the 2010 earthquake. This experience also suggests that regular updates and enforcement of codes are particularly important in the case of poor households, who cannot afford high quality houses and may often rely on self-construction. The location of housing is also important. The government is using the reconstruction to relocate people from the affected areas to safer ones and to develop pilot measures to improve Chile's resilience to earthquakes. But to the extent that massive relocations are difficult and costly the government could extend the pilot measures to the entire country and also limit the development of settlements in fault lines by restricting building permits or reducing the construction of public infrastructure and services in such areas when possible. In the 2010 events most casualties were caused by the tsunami. The government is working on a national early warning procedure for tsunamis and on identifying risky coastal areas. Restricting building permits when needed could also be an option. These measures may increase the price of housing and risk making it less affordable for low-income households. But there are a number of measures the government can take to ensure housing supply functions well that are discussed below and this would help to counteract any upward pressure on prices.

Over the longer term, Chile may also need to develop policies to limit government contingent liabilities due to natural catastrophes. One third of the damage resulting from the 2010 disasters was covered by insurance and insurers processed claims relatively quickly. But, very few houses are covered against earthquakes, about 24% according to Muir-Wood (2011), imposing a big reconstruction burden on households and eventually on the state (see Box 1). After the earthquake, the insurance regulatory authority (Superintendencia de Valores y Seguros) reacted by speeding the processing of claims and temporarily allowing insurers to shorten procedures to accelerate inspections and payments. A bill presented in the Senate proposes compulsory earthquake insurance purchase. Its design should emphasize adequate enforcement in order to increase insurance penetration rates ensuring the schemes viability. In addition, the government should perhaps consider subsidising the cost of catastrophe insurance for low-income property owners who cannot afford it or provide some type of state guarantee to reduce the cost of insurance.

Measures to reduce segregation and avoid poverty traps

The government is buying some land for subsidised housing in more central locations as a means to reduce segregation and improve the social mix. This is welcome as OECD experience suggests that if social housing is not well integrated into different neighbourhoods it can lead to segregation and poverty traps (Andrews et al. 2011). The new policy approach may contribute to more mixed neighbourhoods, but reserves of land in good locations are costly. A complementary and possibly less costly solution would be to better enforce the existing quotas for subsidised housing, as a number of OECD countries have done (e.g. Spain, Ireland) with good results. In Chile developers of new projects have been required to devote at least 5% of land to subsidised housing since 1997, but these are restricted to few specific locations (Zonas y Proyectos de Desarrollo Urbano Condicionado), project approvals are lengthy and there is no time limit for compliance (Trivelli, 2011 and Castillo, 2010). Expanding the existing quotas for subsidised housing to more new development projects, favouring both rental and owner-occupied low-income housing, could contribute to better located subsidised housing and more diverse communities. Speeding up project approvals and imposing a time limit would also help. The government has also adjusted subsidies to allow poor households to buy houses in better locations. However, reducing segregation can only go so far. Improving infrastructure, public transport and social services in poor neighbourhoods will also be necessary, as discussed below.

As a complementary measure to speed up construction and make housing affordable for poorer households the government plans to extend the boundary of Santiago (metropolitan region) and add 13% of what is mostly farm land. While this measure can encourage additional supply and increase affordability, it may reinforce residential segregation as most poor people already live in peripheral areas. It can also

increase commuting costs and pollution more if not accompanied by improved public services and infrastructure. An alternative to free land would be to encourage the development of waste or underused lands within the region of Santiago. Estimates suggest these are substantial and approximately of the same total size as what the expansion of the city boundary would bring (Trivelli, 2011). Redeveloping under-used land has the advantage of sparing land for other uses, such as agriculture or green areas, at the same time as it helps regenerate the city probably at lower infrastructure costs than greenfield investments. Such land reserves are typically located in areas where public services already exist, so the government often needs to spend less in making them habitable. If the government were to pursue the expansion of the boundary of Santiago, it should require developers to contribute with some land for subsidised housing (to buy and to rent) when the new boundary is negotiated. The UK is a good example of successful employment of the land-use planning system to ensure that new land development projects include affordable housing. Thanks to this approach owners and developers contributed to finance its costs (Scanlon and Whitehead, 2011).

There are a number of other factors that may further be slowing the responsiveness of housing supply. Chile should tackle these to ensure a good match between housing construction and demand. The government plans to speed up the allocation of building permits, which currently takes up to 450 days, slowing down construction projects. Another issue is lengthy and cumbersome reforms of land planning regulations, which have also slowed construction projects in the past (Echenique, 2004). The land planning law (*Ley General de Vivienda y Urbanismo*) has not been substantially modified for the past forty years and may be seriously outdated. The authorities should speed up the approval of land planning regulations as its efficient design and enforcement. These measures will improve the responsiveness of housing construction to changes in price signals and ensure that public support, either through direct subsidies or tax advantages, does not get capitalized into housing prices.

The responsiveness of housing supply is also affected by the degree of competition in the residential construction industry (Barker, 2004). Evidence suggests that competition in the construction industry is low in Chile relative to other non-manufacturing industries, and in particular among large construction companies (Duffau and Pasten, 2009). This is mostly due to high barriers to entry, such as high sunk costs of investment, but also because public infrastructure tendering rules give advantages to large firms. There is also some evidence of collusive behaviour in the residential construction market in Santiago, in particular in areas where low-income households live (Lefort and Vargas, 2011). Low competition in the residential construction sector can lead to higher housing prices and lower supply than under more intense competition. Under lower competitive pressures construction companies may also have fewer incentives to improve housing quality. The government should ensure competition policy and anti-trust rules are effective and hinder collusive behaviour in the construction sector.

Housing support excessively promotes homeownership

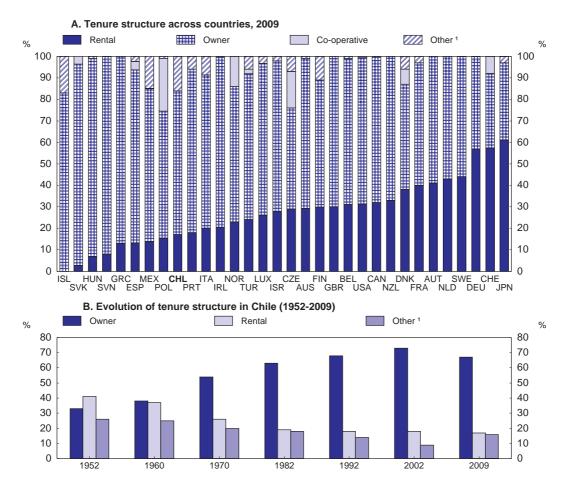
Increasing homeownership has been among the main objectives of Chile's housing policy over the past 30 years. There is no direct housing support for tenants and homeowners are directly and indirectly supported by the state. While most OECD countries grant a favourable tax treatment to owner-occupied housing, Chile's housing subsidies focused exclusively on ownership are in sharp contrast with housing support in most OECD countries. Chile's main motivation for homeownership subsidies is to encourage poor households to save and increase their assets, as a means to escape out of poverty. However, subsidised housing, because of its relatively poorer quality and location, is typically not accepted by banks as collateral for a mortgage (Morandé and Gimenez, 2004), suggesting its poor liquidity as an asset.

This disproportionate policy focus on homeownership may have squeezed Chile's small rental market. At 17%, it is among the smallest in OECD countries and its size has decreased over past decades (Figure 13). The rental market is even smaller than in some Latin America countries (Galindo *et al.* 2011),

and contains a substantial share of informal contracts (about 40%). A small rental market, in particular in the low-rent segment, may not only prevent households from exercising their tastes and preferences, but can also force credit-constrained households, such as the young or poor, to live with their parents or family. This may be contributing to overcrowded housing conditions in Chile (see Figure 2 and 3) and the high share of people living with family and friends.

Figure 13. Tenure structure

As per cent of dwelling stock



1. For Chile, "other" includes free housing provided by relatives or employers as well as housing units for which there is no data on tenure type.

Source: OECD Housing Market questionnaire; Universidad Andrés Bello (2011).

Another factor that may discourage the development of a rental market is strict rental regulations. In Chile, while tenants can terminate rental contracts (one year or more) quite freely, landlords cannot. Even if the tenant does not pay the rent or violates the rental contract in other ways, the landlord needs to recourse to judicial eviction. Such evicting proceedings are long and costly (Global Property Guide): it can last up to 240 days to evict a tenant who doesn't pay the rent. Given the difficulty to evict a tenant, landlords may prefer to rent out their home at high price to trustworthy tenants who can afford paying that rent, which helps to explain why, in Santiago at least, the market seems focused at the high end.

A negative side effect of a small rental markets is a low degree of residential mobility. Given that it is more costly for homeowners to move than for renters, a small rental market may prevent households from easily moving close to their jobs and undermine their economic opportunities. It can also, more generally, hurt labour market reallocation and growth (Rupert and Wasmer, 2011; Head and Lloyd Ellis, 2011). If housing markets do not work well, for instance by providing housing at affordable rents/prices, then job offers will be less attractive due to the difficulty to relocate (Rupert and Wasmer, 2011). Indeed residential mobility in Chile is the second lowest among OECD countries (Figure 14); only about 3.25% of all households move on average every year.

Percentage of households that changed residence within last 2 years¹

%

30

25

20

15

10

5

SVN POL PRT HUN ESP ITA NLD BEL GBR FRA FIN USA AUS

CHL CZE IRL GRC EST DEU LUX AUT CHE DNK NOR SWE ISL

Figure 14. Residential mobility in OECD countries

1. For Chile refers to the percentage of households that changed commune.

Source: OECD calculations based on 2007 EU-SILC Database, on HILDA for Australia, AHS for the United States, SHP for Switzerland and CASEN (2006) for Chile.

Mobility is particularly low among poorer households (Figure 15). Subsidised homeowners, who occupy about 60% of the dwelling stock, are also less mobile (Simian, 2010). Moving is harder for subsidy recipients, in part because it is difficult for them to sell their home to, for instance, climb the housing ladder or get close to a new job. One reason is that within most subsidy programmes houses cannot be sold or rented in the five years following purchase. In addition, the secondary market for subsidised housing has traditionally been small. The focus on providing very low cost units for homeowners in far away locations may have limited the resale value of subsidised housing. Until 2006 the majority of subsidy recipients – *Fondo Solidario* recipients- were not allowed to buy second-hand homes with their subsidy (Razmilic, 2010). This may have limited the liquidity of the second-hand housing market for subsidised homes, since these are typically cheaper and would be mostly demanded by low income households who are eligible for a subsidy.

Average

Figure 15. Residential mobility in Chile by income quintile

Percentage of households that changed commune

Source: CASEN (2006).

Making housing support more tenure neutral would uncover hidden demand and improve mobility

The rental market is typically the most flexible segment of the market for cash-strapped households (the poor or young) and very mobile ones. However, in Chile it is a limited option. Current policies to exempt net rental income and the fact that municipalities apply a surtax on non-occupied houses are measures typically used to encourage the development of the rental market in other OECD countries. But in Chile this has proven insufficient. A complementary option is to strengthen rental demand by giving rental cash allowances to needy households. Many OECD countries have such policies and these are particularly significant in Ireland, the United Kingdom and some Nordic countries (Andrews *et al.* 2011). An advantage of portable housing allowances over subsidies for homeownership, or direct provision of social housing, is that they do not seem to hinder residential and labour mobility, as long as allowances are not tied to a home (ECB, 2003; Hughes and McCormick, 1981; 1985). These subsidies should also be means-tested, earmarked to rent payments or ideally to a median or norm rent and only be used for housing costs. Withdrawal rates for the benefit should be low enough to limit a negative impact on job search incentives or the willingness to move, as withdrawing the benefit increases the effective marginal income tax rate (Immervoll *et al.* 2008). Rental cash allowances should gradually replace a part of the subsidies directed at homeownership in order to make housing support more tenure neutral.

An important precondition for rental allowances to function is that there be sufficient supply of rental housing, as evidence suggests that rent allowances can be passed onto higher rents if supply is inelastic (e.g. Gibbons and Manning, 2003; Kangasharju, 2003; Susin, 2002). This may occur if granting rental allowances generates additional demand for rent and rental supply does not respond. For instance, upon receiving a rental allowance single mothers may move out of their parents' home, or drop-ins (allegados) out of their friends' home. If supply is inelastic rental allowances will increase demand and rents as the increase in rental housing supply will fail.

Therefore a first step should be to ensure that regulations in place give the right incentives for the private sector to invest in rental housing, either by developing new housing for rent, or by upgrading existing housing units. Rental regulations currently protect tenants more than landlords and this should be redressed. The government could promote the use of standard written rental contracts so that landlords and tenants understand their rights and responsibilities. This could contribute to reduce informal rental contracts. Evicting a tenant who does not pay the rent should be made less costly by, for instance, speeding up court procedures, which are currently quite slow. More legal certainty coupled with the security of

rental income provided by the government rental allowance could contribute to stimulate investment in housing for rent to low income households.

Improving public transport and reducing commuting costs which are substantial, in particular in Santiago, where most of the population live, would also facilitate mobility and access to jobs, while contributing to improve the living conditions in poorer neighbourhoods. The government has done great efforts to improve the functioning of the public transport system in Santiago (*Transantiago*), which have borne some results. For instance, accidents, which used to be very common before *Transantiago* was set up in 2007, have decreased by more than half. Air pollution has also decreased substantially with the introduction of new more environmentally friendly buses (Figueroa *et al.*, 2011). However, some deficiencies still remain. Commuting times have increased up to 50 minutes in one direction according to recent estimates (Universidad Andrés Bello, 2011). Some areas of the city are not well covered, which forces commuters to change several times lines or means of transport increasing commuting time and costs. This penalizes poor households most. The government has recently extended the coverage of a transport allowance for children to low-income households, and this is welcome as such support can improve their mobility and access to jobs. More should, however, be done to reduce commuting times and ensure a good coverage of public transport in Santiago. Improving key services in poor neighbourhoods, such as schools, and health services will also be a key ingredient to reduce poverty and inequalities.

Owner-occupied housing receives a preferential tax treatment

The tax code gives incentives to own rather than to rent in Chile, with relatively light taxation of housing relative to other investments. Table A1.1 and A1.2 in the Appendix compares the taxation of housing across OECD countries. As in most OECD countries, the service income provided by owner-occupied housing (*i.e.* imputed rents) is not taxed as income (Table A1.1), but mortgage interest is deductible from taxable income up to a generous limit (of about USD 7 600). Chile has housing property taxes (*Impuesto Territorial*) that could in principle offset mortgage interest deductibility, but they have many exemptions and are not large enough. Private households do not also pay capital gains tax on the sale of any real state property, as long as they keep it for more than a year and if the transaction is not habitual or between related parties.

Houses that are smaller than 140 square meters, which are 80% of the country's stock and most new construction, benefit from favourable tax treatment (*Decreto con Fuerza de Ley No 2*, DFL2), although the government has recently limited these to two houses per owner effective for properties purchased after 2010. Private landlords' rental income from those so-called DFL2 properties is income tax free. DFL2 houses are also exempted from inheritance tax if they are new and acquired through a real estate agent, and they are subject to property taxes at only half the usual rate for up to 20 years. Exemptions from inheritance tax create an asymmetry as other assets are taxed.

Housing construction also benefits from a reduced VAT rate. This creates a distortion relative to other construction and consumer goods that are taxed at the standard rate. It is more expensive to administer, and can lead to tax evasion and avoidance. Overall these preferential tax treatments translate into 0.5% GDP foregone revenue, according to government figures (*Servicio de Impuestos Internos*).

Most OECD countries grant a preferential tax treatment to owner-occupied housing based on the belief that homeownership has positive spillovers for society. For instance, homeownership has been linked to better education outcomes for children, a greater engagement in the community and higher probability of voting. Some studies show that children from homeowners have better test scores and behaviour than renters' children (Haurin *et al.* 2002). Other studies show that homeowners are more active and informed citizens and create more stable neighbourhoods (Di Pasquale and Glaeser, 1999). These findings, however, tend to suffer from identification problems and it is not clear what is the cause and the

effect. For instance, children of homeowners may perform better at school than those of renters simply because of unobserved socio-economic factors.

On the other hand, there is strong evidence that tax subsidies, such as mortgage interest deductibility, can have negative side-effects. They tend to encourage excessive leverage and get capitalized into house prices. Where housing supply is tight and demand strong, such fiscal subsidies can also have a redistributive element, generating capital gains for current owners at the expense of newcomers and actually hinder their access to housing (Wolswijk, 2010). They are also regressive, both because wealthier households are more likely to be homeowners in the absence of tax subsidies, and because they are subject to higher marginal tax rates. For instance, most Chileans do not benefit from mortgage interest deductibility, as 82% of tax payers fall below the income tax threshold. As a result, the deduction provides larger benefits to wealthier households, who would probably buy homes anyway, than to poorer ones, and has at best a small effect on homeownership.

A tax reform to reduce distortions, improve equity and promote a more balanced housing market

A reform to restore neutrality between housing and other investments would ideally involve taxing housing income in the same way as investments in other assets, thus taxing owners' net imputed rental income and private landlords' net rental income. This section discusses the practical issues surrounding such tax reform.

Within a comprehensive income tax system, owner-occupied imputed rental income should be taxed in the same way as other investment goods, with mortgage interests and other running expenses (e.g. depreciation, property taxes) being deductible. In practice, taxing imputed rents is complicated by the difficulties in estimating the rental value. Thus few OECD countries do it (Table A1.1), and those that do often substantially underestimate imputed rents. A second-best solution is either to eliminate mortgage interest deductibility or to scale-up taxes on immovable property sufficiently to equalise what would be the taxation of net imputed rental income (on the assumption that imputed rents are proportional to property value).

Chile should increase its revenues from residential property taxes (*Impuesto Territorial*). This could offset the generous mortgage subsidy and go towards a more equal treatment of housing relative to other investments. Revenues are low, in international comparison (Figure 16), although such taxes are relatively efficient, easier to enforce and involve fewer distortions. Enhancing property tax revenues is also important because Chilean municipalities greatly rely on property taxes to finance key public services such as education and basic health care, which fall under local responsibility (OECD, 2009). About one third of total municipal funding comes from the *Fondo Común Municipal*, a national revenue sharing mechanism set up in 1979 as a counterpart of the decentralization of responsibilities towards municipalities. Half of the fund's resources come from residential property taxes and most municipalities derive most of their funding from it (Horst, 2009). The resulting degree of equalisation is, however, weak compared with other OECD countries and leaves some of the poorer municipalities in a weak position to finance the minimum provision of goods and services (Table 6). Taxes on immovable property are also a good way to finance local expenditures. They are fairly predictable sources of funding, given that there are relatively less cyclical fluctuations in the tax base, and there is less scope for tax avoidance (Valenzuela, 2008).

As per cent of GDP, 2009 4.0 3.5 3.5 3.0 3.0 2.5 2.5 2.0 2.0 1.5 1.5 1.0 1.0 0.5 0.5

Figure 16. Recurrent taxes on residential immovable property¹

1. 2008 for Australia, Greece, Mexico, Netherlands, Poland and Portugal.

LUX CZE CHE AUT HUN BRA

Source: OECD, Tax database and Development Center, Latin American Revenue Statistics.

GRC MEX TUR NOR ARG BEL DEU FIN

SVK SVN

Table 6 Fiscal revenues per capita before and after equalisation

IL PRT ESP KOR DNK IRL N NLD ITA SWE POL AUS ISL

Highest capacity/lowest capacity ²						
	Before equalization	After equalization				
Federal/ regional countries		·				
Australia	1.3	1				
Canada	2.4	1.7				
Germany ¹	1.7	1.1				
Spain	2.1	1.4				
Switzerland	3.8	2.5				
Unitary countries						
Denmark	2.2	2				
Finland	1.8	1.1				
Norway	2.2	1.2				
Japan	3.1					
Sweden	1.4	1.1				
Portugal	12.7	2.1				
Turkey	85.6	1.7				
Chile	20.6	2.3				

^{1. 2005} for Germany, 2010 for Chile, 2004 for all other countries; the data show actual revenues for Chile and revenue capacity for all other countries.

Source: Bloechliger and Charbit (2008), Sistema Nacional de Información Municipal for Chile.

Property tax revenues are low partly because of the many loopholes and exemptions in the property tax. Approximately 65% of properties do not pay any property tax at all, and this reduces tax revenues by half according to government estimates (*Servicio Impuestos Internos*, 1st semester 2011). Properties below a certain taxable price level (about USD 34 523) are exempted. Besides owners of DFL2 houses a long list

^{2.} Ratio of maximum and minimum fiscal capacity of subnational governments before and after equalisation. For federal/regional countries the indicators are calculated for the state/regional level. For unitary countries revenues per capita are averaged by decile. In these cases the table shows revenues per capita of the richest decile as a ratio of revenues per capita of the poorest decile.

of public and private institutions is also fully exempt from real estate taxes or pays, at most, 50% of the property taxes (Valenzuela, 2010). Among those that receive the largest breaks are the police and the army (Valenzuela, 2008), which has little justification in terms of income distribution or poverty objectives. The government should phase out exemptions for DFL2 houses, and reconsider the long list of public and private institutions that are exempt.

Property tax rates are also possibly too low. The 2006 revenue act (*Ley 20.033, Ley de rentas II*) made reassessments of property values obligatory at least every five years. This was an important step forward, as before that reassessments took place only every 10 years. But the law also capped the growth in aggregate property tax revenues to 10%. To keep the increase in national revenues below this threshold, tax rates are typically lowered and the minimum taxable price level is increased. In the 2006 revision, tax rates were reduced by 2 percentage points across the board and the exempted price level increased by 30% leading to a revenue loss of USD 30 million in 2006 (Joratt, 2009). The government should phase out the cap on the growth of aggregate property tax revenues. To increase public acceptance of higher property taxes, the government could keep the current gradual increases in individual taxes following a reassessment and even consider special arrangements to reduce liquidity constraints for people with low incomes or illiquid assets. These could include a better assessed minimum taxable price level.

If raising property taxes sufficiently is politically too difficult, an alternative is to phase out mortgage interest deductibility. Many OECD countries have done this over recent years (e.g. Australia, Canada, Germany, Spain, United Kingdom). Phasing out mortgage interest deductibility is not easy either, not least because such breaks are typically quite generous and construction and real estate lobbies are very powerful in most countries. It may be easier for Chile though. As most Chileans do not benefit from the mortgage subsidy, opposition may be weaker. To facilitate its political acceptance and to prevent sharp changes in property values and household cash flows, the government should phase it out gradually. It could for instance cap the mortgage interest deduction further, or limit the rate at which it is deducted.

The government should also phase out rental income exemptions for the so-called DFL2 properties. Deductions of all costs involved in producing that income should be allowed, in the same way as with income from other investments (*e.g.* shares or investment in small businesses). Likewise, DFL2 properties should be subject to the inheritance tax, as are other assets in Chile and in line with common practice in the OECD (Table A1.2). Creating a good and flexible framework for housing construction and tenant-landlord relations, as suggested above, would counteract any negative effects that higher taxation may have on housing supply.

Exemptions from capital gains on property sales are also unusually generous. While most OECD countries exempt capital gains from the sale of the principal residence, they generally do tax capital gains on secondary homes to establish neutrality relative to other assets that pay capital gains and avoid diverting savings excessively towards housing (Table A1.1). In a way, capital gains tax exemptions for housing property are less likely to create distortions, given that other saving vehicles also have tax advantages (pension funds, and saving funds), and a wide range of shares are exempt from capital gains. This favourable treatment, however, implies a tax break for relatively affluent households who own more expensive houses, it complicates the tax code and facilitates tax planning. The government should consider limiting exemptions to capital gains taxation. While this may limit or lock in some types of investment, it would make for a more neutral tax system that is easier to administer with fewer opportunities for tax avoidance.

The reduced VAT rate for housing construction should be capped further. The tax benefit was capped in 2009 for properties below a certain price (4 500 UF, USD 209 804), which is a step in the right direction. But the maximum price threshold is still high. The benefits are also greater for more expensive properties. Although neutrality considerations would support charging the standard VAT on all new

construction, this would reduce housing supply incentives for low cost housing in the short term, which is not desirable, given that poorer households have greater housing needs (Figure 3). The government should however consider capping further the reduced VAT rate for housing construction as this would make the tax benefit less regressive and would contribute to reducing fiscal costs.

Box 3. Recommendations to improve the functioning of Chile's housing market

- Improve targeting of housing subsidies to low-income households.
- Over time redirect some of the housing subsidies to means-tested rental allowances for low-income tenants.
- Better integrate subsidised housing into wealthier neighbourhoods, encourage the development of underused land, better enforce subsidised housing building quotas and invest more in infrastructure, public transport and social services in poorer neighbourhoods.
- Upgrade thermal and energy efficiency standards for buildings and extend limits to construction in fault lines and risky coastal areas to the entire country.
- Further reduce tax distortions in favour of housing by either increasing real state tax rates or phasing out
 mortgage interest deductibility. Tax rental income in the same way as investment in other assets, and make
 all houses subject to inheritance tax.
- Make supply more responsive to demand by speeding the reforms of land planning and allocation of building
 permits, and ensuring the rental market works well, by striking the right balance between regulation that
 safeguards tenants' and landlords' rights.

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Table A1.1. Housing-related taxes: Interest rate deductibility, imputed rent and capital gains tax

_	Mantanana internat dadustikilitu	Tay an immedial mate		Capital gains tax (CGT)	
	Mortgage interest deductibility	Tax on imputed rents	Primary residence	Secondary residence	Other assets
ustralia	No	No	No	Yes. 50% on the capital gain at the taxpayer's marginal rate if the holding period is 1 year or more. Assets held for less than 1 year attract full capital gain tax.	Yes. 50% on the capital gain at the taxpayer's marginal rate if the holding period is 1 year or more. Assets held for less than 1 year attract full capital gain tax.
vustria	Yes. For incomes less than EUR 50 000.	No	Exempt if held more than 2 years. Otherwise taxed at personal income tax rate.	Taxed at personal income tax rate. No tax after 10 years holding.	Yes
Belgium	Yes. After 1 Jan 2005, deductible up to EUR 2 770 for the first 10 years and EUR 2 080 thereafter.	The imputed rental income from a taxpayer's main dwelling is subject to immovable withholding tax but not to income tax.	No	Yes. 16.5% tax if held less than 5 years, no tax after 5 years holding. 33% tax if speculative intent.	Shares purchased with speculative intent taxed at 33% rate; other shares exempt.
Canada ¹	No	No	No	50% of capital gains are included in net taxable capital gains, taxed at marginal personal income rates.	50% of capital gains are included in net taxable capital gains, taxed at marginal personal income rates.
Shile	Yes	No	Exempt if held for more than one year. Otherwise taxed at the personal income tax rate.	Exempt if held for more than one year or less than 4 years in the case of an apartment. Otherwise taxed at the personal income tax rate.	Exempt shares if substantially and regularly traded on a recognised Chilean stock exchange. Exempt shares of risk capital companies, mutual funds, joint-stock companies up to a certain threshold.
Zech Republic	Yes. Deductible up to a limit of CZK 300 000.	No	Exempt if held for 2 years. Otherwise taxed at 15%. If sold within 2 years, exemption still applies if gains are used for housing.	15%. Exempt if held for 5 years.	Taxed as personal income, flat rate of 15%.
)enmark	Yes. The tax deduction on interest has a taxable value corresponding to approximative 33%.	No	No	No	Capital gains from shares are taxed at rates of 28% below DKK 48, 300 and 42% thereafter.
Estonia	Yes	No	Exempt.	Holiday houses are exempt if held for more than 2 years.	Taxed as personal income, general rate 21%.
inland	Yes	No	Exempt if hold for less than 2 years; otherwise taxed at flat rate of 28%.	28%	28%
rance	Tax credit for interest on loan for principal residence for 5 years. The credit is equal to 20% up to EUR 3 750 per year, increased by EUR 500 per year for each dependent person. The limits are doubled for couples.	No	No	Exempt from capital gains taxation after 15 years holding.	Taxed as personal income and subject to a flat rate of 28.1%.
ermany	No	No	No	No	Exempt if asset sold after 10 years.
Greece	Yes. Mortgage loans taken after 2002, a credit of 20% of the annual mortgage interest on principal home is granted (on the first EUR 200 000 of the loan).	Yes on principal dwellings larger than of 200 m2 and on second house larger than 150 m².	No	No	No
lungary	No	No	Exempt if property held for more than 5 years. Otherwise taxed at 25%.	Exempt if property held for more than 5 years. Otherwise taxed at 25%.	Generally, a 25% tax rate is applicable.
celand	An interest compensation payment is made to individuals who incur interest with respect to their residence.	Yes. 70% of rent taxed at 15%.	Exempt if held for more than 2 years. Gains from residence held for less than 2 years exempt if reinvested another residence.	Yes	15%
reland	Yes. Relief of 20% on the interest of qualifying loans for 7 tax years, (higher rates for first homebuyers). Mortgage interest relief is restricted to EUR 3 000 for singles and EUR 6 000 for married/widowed taxpayers.	No	The primary residence is exempt from capital gains taxes, but the increase in value due to the development of the property is taxable.	Yes	Taxed at 25%. First EUR 1 270 of gains exempt.
srael	No	No	No		Taxed at 20%. For significant shareholders taxed at 25%.

^{1.} Information for Canada is non-verified. Source: OECD Housing Market questionnaire.

Table A1.1. Housing-related taxes: Interest rate deductibility, imputed rent and capital gains tax (continued)

			tibility, imputed rent and capital gain	,	
	Mortgage interest deductibility	Tax on imputed rents		Capital gains tax (CGT)	
			Primary residence	Secondary residence	Other assets
Italy	Yes. Tax credit equal to 19% for principal owner- occupied dwellings with maximum tax credit EUR 760 and for construction or recovery of principal owner-occupied dwellings maximum tax credit is EUR 491.	Exempt in the case of principal owner-occupied dwellings.	No	Exempt if held more than 5 years. For dwellings sold within 5 years, either flat tax of 20% or normal progressive income tax.	Yes. Qualified shareholdings 49.72% of the capital gain is subject to progressive personal income tax rate if certain holding restrictions are met.
Japan	No	No	After 5 years holding taxed at 15%. Less than 5 years holding taxed at 30%.	After 5 years holding taxed at 15%. Less than 5 years holding taxed at 30%.	Yes. The tax rate applied is 15% (7% from 2003 to 2011 for listed stocks).
Korea	No	No	Exempt if held for more than 3 years. Otherwise taxed between 6-35%.	6-35% depending on the amount.	6-35%
Luxembourg	Yes. Deducted up to a maximum amount which depends on period of occupation and taxpayer's family situation and varies between EUR 750 and EUR 1500.	Yes. Imputed rent at 4-6% of unit value of the dwelling based on valuation on 1 January 1941.	No. Special rules apply to speculative gains, defined as a holding period less than 2 years.	Yes. If property held for less than 5 years.	Taxed at maximum rate of 19.475%. Special rules applies to speculative gains, <i>i.e.</i> holding less than 6 months.
Mexico			No	No	Yes
Netherlands	Yes.	Yes. Imputed rent of up to 0.55% of market value of the dwelling.	No	No	
New Zealand	No.	No	No	No	No
Norway	Yes. Deductible from ordinary income, tax value of 28%.	No	Exempt if the owner has occupied the house in 12 out of the last 24 months.	28%	28%
Poland	No	No	Exempt after 5 years holding. Exempt from tax if they are used within 2 years on the taxpayers own dwelling or to pay mortgage loan. Otherwise taxed at 19%.		19%
Portugal ¹	Yes	No	Exempt if proceeds re-invested in another principal residence within 2 years. Otherwise 50% of the gains are taxed as personal income.	50% of gains from immovable property is taxed as personal income.	Taxed as personal income.
Slovak Republic	No	No	Exempt after 2 years holding.	Exempt after 5 years holding.	Taxed as personal income.
Slovenia	No	Yes	Exempt after 3 years holding period.		20%. The rate is reduced by 5%percentage points for each 5 years of holding so that gains are exempt after a 20 year holding period.
Spain	Yes	No on principal dwellings.	Exempt if re-invested in another principal residence. Individuals over age 65 years are exempt.	Yes	Yes
Sweden	Yes. Deductible against capital income, in case of deficit then 30% tax reduction against labour income.	No	All capital gains are taxed, but may be deferred if reinvested. Otherwise, taxed at 22%.	Yes	Yes
Switzerland	Yes	Yes	Yes	Yes	Yes
Turkey	No	No	Exempt if held for more than 5 years.	-	
United Kingdom	No	No		Yes	18%
United States	Yes. Applies to loan up to USD 1 million.	No	First USD 250 K (USD 500 K if married) excluded if dwelling occupied 2 years over 5 year period.	Yes	Yes. 15% is a typical maximum, but tax rate can be higher.

Information for Portugal is non-verified
 Source: OECD Housing Market questionnaire

ECO/WKP(2012)20

Table A1.2. Housing related taxes: Property, wealth, inheritance and consumption taxes

	Recurrent taxes on land and buildings						Cadastral value (year and frequency of updating
				New dwellings	Other dwellings	Other durable goods	
Australia	Yes. Land taxes levied at a sub-national level. New South Wales: AUD 100 plus 1.6% of the land value between AUD 376 000- AUD 2 299 000, thereafter 2%.	No	No	Yes. Tax levied on new residential construction and improvements at a 10% rate.	No	10%	
Austria	Yes. The tax is levied at a basic federal tax rate (usually 0.2%) multiplied by a municipal coefficient ranging up to 500%.	No	No.	No.	No	20%	1973, not automatic.
Belgium	Yes. Taxed as a percentage of the Kadastraal inkomen. General regional rate (1.25% for Brussels and Wallonia and 2.5% for Flanders) and the local municipality rate.	No	Yes	New dwellings taxed at 21%.	Maintenance and repair taxed at 6%.	21%	1980, only annual indexation.
Canada ¹	No	No	No. Although a form of tax imposed through deemed disposition provisions in income tax.	Yes. 5% is levied on new residential construction but purchasers of owner occupied properties of less than CAN 450 000 receive a partial rebate. All investment properties subject to full consumption tax.	No	5%	
Chile	Yes. Levied on annual basis on urban or rural property on the base of the official cadastral value.	No	Yes. DFL-2 houses are exempted from the inheritance tax as long as the deceased bought it directly from a real estate agency and was the first owner.	New dwellings get a capped VAT tax credit (65% for residential construction not exceeding 4 500 UF (USD 209 804) with a ceiling of 225 UF (USD 11 656).	Maintenance and repair taxed at 19%.	19%	2009, every five years.
Czech Republic	Yes. Building/real estate and land tax. Real estate tax of CZK 2 per m ² multiplied by a coefficients ranging between 1-4, 5 depending on the size of the municipality.	No	Yes. Direct relatives, spouses and more distant relatives are exempt.	VAT of 20 %; 10 % for social housing.		20%	
Denmark	Yes. Municipal tax: 1.6-3.4% based on the value of the land only. National tax: standard rate of 1% of taxable value up to DKK 3 040 000 and 3% above threshold.	No	Yes. Inheritance exceeding DKK 255 400 is taxed at 15% for close relatives and 36.25% for others. Spouses are exempt.	Yes. From 2011 newly build property will be subject to full VAT. Resale is not taxed.	Sale and lease of property is exempt from VAT.	25%	2009, every 2 year.
Estonia	Yes. Land tax levied on market value of land at a rate of between 0.1% and 2.5%. Tax base has not been updated since 2001.		No	No	No	20%	2001
Finland	Yes. 0.22-0.5 per cent of the taxable value of the property depending on the municipality.	No	No	No. Construction services are taxable at 22%.	No	22%	2009
France	Yes. Two types of taxes: a property tax (taxe foncières) and a residence tax (taxe d'habitation).	Yes. Net wealth tax on market value of assets exceeding EUR 790 000, rate ranging 0.55-1.8%. A deduction of 30% is granted for the principal residence.	Yes. Tax free allowances: Spouses EUR 76 000; Between parents and/or children: EUR 46 000.	Exempt for first transfer of dwelling occurring within 5 years of completion. Otherwise taxed at 19.6%.		19.6%	1970, none.
Germany	Yes. Real estate tax on the fiscal value at a federal rate of 0.35%, multiplied by a municipal coefficient ranging between 100-900%. Average multiplier for Germany is 400%, implying a rate of 1.4%.	No	No	No selling. Yes for construction of new dwellings.	No	19%	
Greece	Single tax on real estate 3% on the objective value of the property which is situated in Greece and belongs to companies.	No	Yes	19%		19%	
Hungary	Yes. Building tax: HUF 1 241.29 per m ² or 3% of fair market value. Land tax: HUF 275, 84 per m2 or 3% of fair market value.	No.	Yes	25%	No	25%	
Iceland	Yes		Yes	Yes	No	Yes	2009, annually.
Ireland	Yes. A local charge of EUR 200 per dwelling payable by owners of private rented accommodation, holiday homes and other non-principal residences.	No	Yes. Taxed at 25% on amounts over EUR 414 799 for inheritances by children, EUR 41 481 for other relatives, and EUR 20 740 for others. Dwelling houses except in certain circumstances.	13.5%		21%	
Israel	No	No	No				
Italy	Yes. Primary residence exempt from real estate tax provided it is not deemed a luxury residence. Tax depends on the Municipal Council and it varies from 0.4% to 0.9%.	No	Yes	10%	No	20%	

Information for Canada is non-verified.
 Source: OECD Housing Market questionnaire

Table A1.2. Housing related taxes: Property, wealth, inheritance and consumption taxes (continued)

	Recurrent taxes on land and buildings	Wealth tax	Inheritance tax	General consumption tax - VAT			Cadastral value (year and frequency of updating
				New dwellings	Other dwellings	Other durable goods	
Japan	Yes. Two taxes: A municipal tax levied at 1.4% of the assessed value of the land or building. City planning tax is levied within the range of 0.3% or less on the assessed value of the land or building.	No	Yes	5%	5%	5%	2009, every 3 year.
Korea	Yes. Property tax levied on the standard value of the property. 0.2-0.5% for land; 0.25 for buildings; and 0.1-0.4% for houses.	No	Yes	0 or 10%.	0 or 10%.	0 or 10%.	2008, annually.
Luxembourg	Yes	No	Yes. Inheritance in direct line of the deseased are exempt from tax. For others, the tax varies between 2-15%.	3%	No	15%	
Mexico	Municipality tax ranging between 0.05-1.2% of the cadastral value.	No	Yes	No	No	16%	
Netherlands	Yes	Secondary homes are subject to tax.	Yes	Taxed at 19%. Exempt if newly constructed dwelling sold at least 2 years after first actual use.	No	19%	2008, annually.
New Zealand	No	No	No. A gift duty is imposed on the donor at a rate between 5-25% of the gift value.	Taxed at 12.5%.	Taxed if vendor GST registered.	12.5%	varies, annually/every 3 years.
Norway	Yes. Tax rate at 0.2-0.7% of value of the assessed value, which is usually 20-50% of fair market value.	Yes. Net wealth in excess of NOK 700 000, subject to national tax is levied of 0.4% and a municipal tax is levied at 0.7%.	Yes	25%	No	25%	2010, annually
Poland	Yes. Rates range in 2009: 0,37 – 0,62 PLN.	No	Yes. 3-20% according to degree of relationship and value.	New houses less than 300 m ² and apartments less than 150 m ² will be subject to 7% VAT. Additional surface will be subject to standard 22% VAT rate.	No	22%	
Portugal ¹	Yes	No	No	No	No	20%	
Slovak Republic	Yes. Land tax levied at 0.25% of tax base, which is a fixed value per square meter, last adjusted in 2004. Tax on buildings and apartments is EUR 0.033 per m ² .	No	No	19%	19%	19%	
Slovenia	Yes. Land and building compensation duty is levied by municipalities on owners and users (renters etc) of land and buildings. For owner-occupiers, the first 160 m ² of a dwelling is exempt. Tax rates range from 0.1-1.5% of the value of the property.	No	Yes	Taxed at 8.5%.		20%	
Spain		No	No	Taxed at 7%. Social dwellings promoted by public developers taxed at 4%.	No	16%	
Sweden	Yes. Municipality fee based on the assessed value of the property, with a maximum of SEK 6 387 or 0.75% of assessed value for single family houses (SEK 1 277 or 0.4% of assessed value for apartments owned by residents associations). New buildings are exempt from the fee for the first 5 years.	No	No	Full VAT on production costs.		25%	2007/2009, every 3 years.
Switzerland	Yes	Yes, at cantonal level.	Yes				Every 5 years.
Turkey	Yes	No	Yes. Progressive rates with tax free allowances for close/immediate family.	1% on properties <150m2 and 18% on properties over 150 m ² .		18%	
United Kingdom	Yes. Owners and renters must pay a Local Council tax based on assessed or imputed value of the property in April 1991.	No	Yes. Levied at 40% on the value of estates above Pounds 255 000.	No VAT on construction of dwellings but materials/labour for any repairs/extensions attracts tax of 17.5%.	Reduced rate of 5%.	17.5%	1991, no plans.
United States	Yes. Local tax.	No	Yes. Will be re-imposed in 2011.	Very rare, 2-3 states.	Very rare, 2-3 states.	Yes. Sales tax, rate depend on state.	varies by city/county.

Information for Portugal is non-verified.

Source: OECD Housing Market questionnaire

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