III. Housing taxation: from micro design to macro impact[17]

This section discusses housing taxation from an efficiency and equity standpoint, highlighting the fiscal and macroeconomic consequences of the current tax rules. On the fiscal side, the relatively low contribution of property taxes to government budgets means that the favourable treatment of owner-occupied housing, through exemptions and relief measures, entails a revenue cost. These tax expenditures can lead to distortions in tenure choices and the allocation of capital and moreover, may ultimately contribute towards higher house prices, thus working against their intended aim of fostering home ownership. The tax break granted to mortgage interest payments also encourages highly leveraged housing investment and the accumulation of high household debts. Distributional issues, particularly when it comes to indebted households, should be taken into account when considering tax reforms aimed at enhancing the efficiency of housing taxation.

Introduction

In the context of institutions and the regulation of housing and mortgage markets, it is useful to note that a previous issue of this report highlighted the important effect taxation has on incentives on the demand side. [18] In this section we focus on housing tax arrangements, highlighting their impact on fiscal outcomes in the broader context of taxation of immovable property. We also consider efficiency and equity aspects linked to tax design issues, which can have important macroeconomic implications. The analysis complements previous contributions on housing taxation [19] by offering quantitative evidence on the overall tax pressure on housing and on its distribution across households.

Property tax systems vary widely across the euro area, affecting several aspects of tax design. These include the definition of taxed items (transactions, capital gains, housing wealth or its consumption value) and, for a given tax instrument, the precise definition of the tax base, the structure of tax rates, and the presence of exemptions and relief.

The preferential tax treatment of owner-occupied housing

A house constitutes a capital asset for homeowners and provides a housing service for the occupant. Both aspects are relevant to taxation and could warrant specific tax treatment. The distinction between these two investment aspects and consumption goods is explicit in the case of privately rented property but not in the case of owner-occupied housing. In practice owner occupiers benefit from favourable tax treatment in many countries.

To assess whether tax systems favour owner-occupied housing, it is natural to use tax neutrality with respect to savings and investments as a benchmark. Thus, treating residential property in the same way as other types of investment, including buy-to-let property, would entail taxing the rental income generated while allowing costs to be deducted. Such costs may include maintenance costs and interest payments in the case of debt-financed housing investment. This would mean that only the net return on investment would be taxed. Capital gains on housing transactions would also be taxed to achieve neutrality in relation to the taxation of other assets.

In practice, the current treatment of housing in the personal income taxation structure leaves the implicit rental income of homeowners (i.e. the imputed rent) largely untaxed. [20] In the limited number of cases in which imputed rent is taxed (for instance in Luxembourg and the Netherlands), the value taken as the tax base is well below the corresponding market rental value. In principle, recurrent property taxes applied to the stock value of a dwelling could be used to partly compensate

[17] Section prepared by Serena Fatica.

[18] European Commission (2014), 'Institutional features and regulation of housing and mortgage markets', *Quarterly Report on the Euro Area*, Vol. 13, No 2, pp. 27-33.

[19] European Commission (2012), 'Taxation of housing', *Quarterly Report on the Euro Area,* Vol. 11, No 4, pp 25-30.

[20] An appropriate income tax base should reflect both monetary and non-monetary consumption opportunities. Imputed rents expand homeowners' consumption possibilities because they generate savings in terms of housing services which would otherwise be paid for. On the other hand, homeowners incur costs such as interest and maintenance costs (which, in the case of landlords, can normally be covered by the rent paid by renters). In this respect, imputed rent, accounting for the income value of home ownership, net of costs, can be regarded as a form of income and thus has to be included in the taxable base.

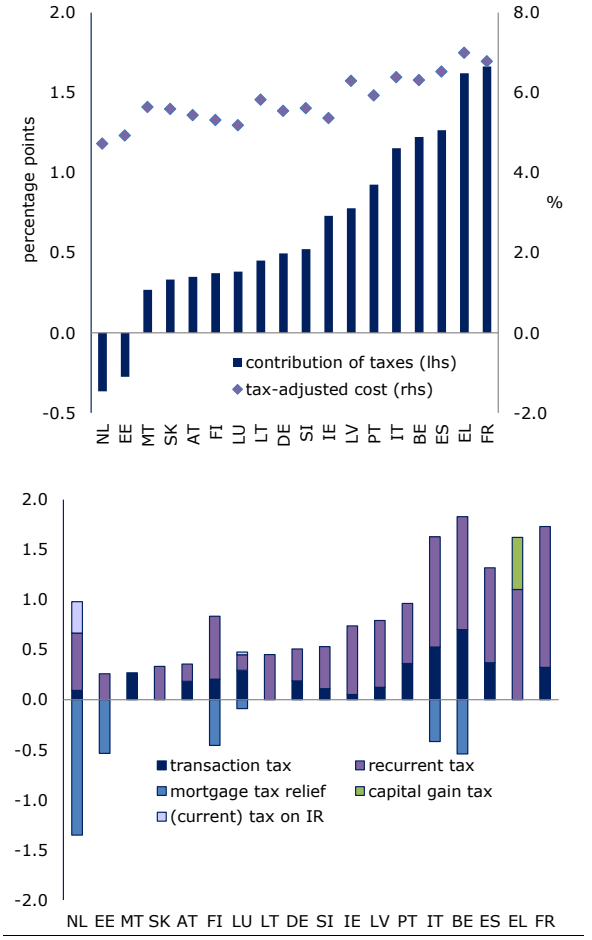
for the absence of imputed rent taxation. Recurrent taxes can indeed be considered an efficient way of taxing the flow of services from housing on an annual basis. However, it is crucial that the tax base on which the recurrent tax is levied adequately reflects the value of the property, which may not be the case when cadastral values are not updated regularly. In practice, however, recurrent taxes generate relatively low revenues, mainly because the taxable base frequently falls short of market values. ([21]) At the same time, several euro area countries still offer some form of tax relief on interest payments, and in some cases also on capital repayments. The relief on the financial costs of investment in owner-occupied housing is not counterbalanced by appropriate taxation of home ownership, since imputed rent is tax-exempt and recurrent taxes are relatively low. This means that the return on housing investment is under-taxed. All in all, national tax codes tend to be biased in favour of owner-occupied housing, in a way which is hard to justify from a purely economic point of view.

Measuring the tax contribution to the cost of owner-occupied housing

The overall tax contribution to the cost of owner-occupied housing varies significantly across countries. The impact of taxes and exemptions can be gauged using an indicator for the user cost of investing one additional euro in owner-occupied housing, based on the established literature which treats home ownership as an investment decision in the neoclassical framework. The cost, which depends on the economic variables associated with home ownership, such as the mortgage interest rate, maintenance costs, economic depreciation and expected increase in value of the asset, can be adjusted so as to reflect the current tax treatment of owner-occupied housing. ([22])

The upper panel of Graph depicts the tax-adjusted cost associated with the investment of an additional euro in housing capital, alongside the overall tax contribution. ([23]) The Netherlands, Estonia, Luxembourg, Finland and Ireland are euro area countries where the user cost of housing investment is relatively low (in the bottom quartile of the distribution). By contrast, the upper quartile comprises Belgium, Italy, Spain, France and Greece.

Graph III.1: **Marginal cost of home ownership and contribution of taxes (1)**



(1) Tax-adjusted user cost expressed as a percentage of the investment of an additional euro in owner-occupied housing (upper panel). The bars show the tax contribution in percentage points. Countries are shown in the ascending order of the contribution of taxes. The applicable tax rules are those in place in January 2014. No data for CY are available.
Source: DG ECFIN.

The lower panel shows the contribution of the different tax instruments. Recurrent property taxes, levied in all euro area countries except Malta, increase the cost of home ownership. Transaction

([21]) See, European Commission (2014), 'Tax reforms in EU Member States', *European Economy*, 6/2014.

([22]) The user cost indicator has been used in several studies to assess the size of housing tax expenditure in the US. See, for instance, Poterba, J.M. (1992), 'Taxation and housing: old questions, new answers', *American Economic Review*, Vol. 82 No 2, pp. 237-242. Poterba, J.M. and T.M. Sinai (2008), 'Tax expenditures for owner-occupied housing: deduction for property taxes and mortgage interest and the exclusion of imputed rental income', *American Economic Review P&P*, Vol. 98 No 2, pp. 84-89.

([23]) The contribution is the difference between the tax-adjusted cost and the cost calculated when all the relevant tax rates are set to zero. For details on the indicator and the methodology see Chapter 3 in European Commission (2014), *op.cit.*

taxes are also widely used in the euro area, sometimes at relatively high statutory rates, which suggests that there is some scope for an internal rebalancing of the structure of property taxation towards recurrent tax instruments. Transaction taxes hamper the efficient allocation of residential property, thereby reducing labour mobility, by discouraging property purchases. By contrast, capital gains on a main residence are usually untaxed, or taxed in limited cases, e.g. depending on the duration of occupancy and the value of the house. Naturally, relief on mortgage debt payments has a negative effect on the cost of housing investments. The most generous tax subsidy for new mortgage debt is in the Netherlands, followed by Belgium, Estonia, Finland, Italy and Luxembourg.

The debt bias in housing taxation

The amount of mortgage interest tax relief varies across national tax codes. Relief can be granted as a tax credit (i.e. as a reduction in the tax liability that is proportional to the loan payments) or as a deduction against income (i.e. as a reduction in the tax base). Caps on the deductions or other forms of limitations (such as restricting entitlement to first-time buyers or to young families only) are also in place in the euro area. By lowering the cost of debt, this tax subsidy incentivises borrowing for the purpose of financing housing investments. ([24])

This could ultimately result in excessive levels of household debt, which has been identified as an important source of macroeconomic vulnerability and an amplifier of macroeconomic shocks. Coupled with the deductibility of debt finance usually granted under the corporate income tax system, tax subsidies on mortgage interest may contribute significantly to increased debt levels in the private sector as a whole, presenting a significant risk to financial and macroeconomic stability.

Many Member States are now in the process of reducing the debt bias in their housing tax systems by scaling back the amount of tax relief granted on mortgage interest payments. ([25])

Fiscal and economic consequences

The tax arrangements for owner-occupied housing have a budgetary and broader economic impact. As far as the budgetary impact is concerned, the focus is on the revenue lost from housing tax expenditure, namely the tax exemption of imputed rent and tax relief on mortgage interest payments. The different channels through which the low level of housing taxation and specific design issues, such as the prevalence of transaction taxes, affect macroeconomic outcomes are discussed in turn.

Relief and exemptions granted to homeowners under the personal income tax system carry a significant fiscal cost. Table III.1 gives a static estimate of the corresponding lost revenue for selected euro area countries, obtained using EU-SILC data and the micro-simulation model EUROMOD.

As Table III.1 shows, the hypothetical inclusion of net imputed rents in the personal income tax base would represent between 5 % of personal income tax revenues in France to 24 % in Finland. ([26]) The resulting average effective rate of taxation would range from around 16 % in France to 47 % in Belgium. The marked disparity across countries is due to three factors: i) the proportion of owners and their position in the income distribution, ii) the value of imputed rent with respect to taxable

([24]) Results from the recent ECB Household Finance and Consumption Survey (HFCS) show that mortgage loans are by far the most sizable liability in household portfolios. Although less prevalent than unsecured debt (23.1 % compared with 29.3 % of households), mortgage debt is considerably more sizeable when it is held: the median value of mortgage debt for euro area households is €68 400, while for non-mortgage debt it is €5 000. See, ECB (2013), 'The Eurosystem Household Finance and Consumption Survey: description and main results of the first wave', in *ECB Monthly Bulletin*, April 2013.

([25]) Spain and Ireland removed interest relief entirely for new mortgages (from 2013), while the Netherlands and Finland will reduce it gradually. In the Netherlands, interest deductibility will only apply to new mortgages if the principal is fully repaid within 30 years. Moreover, the maximum income tax rate for the deduction will be gradually reduced from 52 % to 38 %. In Finland, the deductible part of mortgage interest will be reduced for homeowners from 85 % in 2012 to 50 % by 2018. Luxembourg and Estonia have both significantly reduced the maximum deduction. See European Commission (2014), *op.cit.*

([26]) For the methodological issues, see Verbist, G., F. Figari and F. Zantomio (2014), 'HESTIA: Housing taxation in EUROMOD: a statistical tool for imputed rent and policy analysis', *mimeo*, European Commission, Joint Research Centre, Institute for Prospective Technological Studies. These estimates clearly have the advantage of being derived from a harmonised methodology, thus enabling cross-country comparability. As such, however, they might differ from the data in EU-SILC, where each EU member State reports values of imputed rent obtained with a specific approach. For the related methodological challenges see, European Commission (2013), 'The distributional impact of imputed rent in EU-SILC 2007-2010', Eurostat, *Methodologies and Working Papers*.

Table III.1: **Revenue cost of tax expenditure for housing, 2012**

	AT	BE	FI	FR	DE	IT	ES
Imputed rent tax exemption (mn EURs)	3 027	6 533	5 973	10 101	21 409	24 972	12 439
in % of personal income tax revenue	10.8	15.4	23.5	5.2	8.5	13.2	18.4
Mortgage interest tax relief (mn EURs)		2 646	333	2 157		1 436	2 907
in % of personal income tax revenue		6.2	1.3	1.1		0.8	4.3

Source: European Commission — Joint Research Centre, based on the EUROMOD model.

income, and iii) the structure and progressivity of the personal income tax regime.

The overall revenue cost stemming from tax relief on mortgage interest payments can be sizable. It ranges from about 1 % of personal income tax revenue in France and Italy to 6 % in Belgium.

The economic consequences of a low tax burden on housing are far reaching. At the microeconomic level, tax incentives enable owners to afford a disproportionately high level of housing consumption and can distort individual location decisions. ([27])

At the macroeconomic level, the main concerns are the effects of preferential tax treatment on investments in housing capital, its price and household debt. The impact on savings and investments has been widely analysed using general equilibrium settings, where the main source of distortion is indeed the breach of tax neutrality across different types of investment. In models with fixed house prices, repealing existing exemptions and relief, in a revenue-neutral fashion, has the effect of improving welfare while at the same time shifting investment from housing to productive capital in the corporate sector. ([28]) Likewise, establishing neutrality in the tax treatment of homeowners and landlords (often facing heavier taxation) would affect incentives to supply rental housing services, as households would reshuffle their portfolios and thus, ultimately, change their tenure decisions. Importantly, in this context it is shown that the progressivity of the tax system matters because it affects relative incentives that households with different marginal tax rates face in allocating their portfolios, including housing investment. ([29]) Finally, tax subsidies for housing are likely to be capitalised into higher asset prices. Thus, a decline in house prices, following a repeal of housing tax expenditure, would bring about an overall welfare gain and increase home ownership rates among younger and poorer households. ([30])

The widely held view that housing tax expenditure fosters home ownership is challenged also by the empirical literature, which points to a significant impact on house price inflation in the presence of supply rigidities, particularly when it comes to mortgage interest tax relief. ([31]) Moreover, tax subsidies on mortgage interest payments have also been found to correlate with price volatility on the housing market. ([32]) Ultimately, the extent to which prices and/or quantities adjust to accommodate demand pressures depends on the elasticity of supply, which, in turn, is affected by institutional and regulatory arrangements. ([33])

A third important concern relates to the fact that the tax relief on mortgage interest payments can incentivise excessive household leverage. The role of mortgage debt has been recognised as playing a pivotal role in crisis episodes, and is likely to have

([27]) Albouy, D. and A. Hanson (2014), 'Are houses too big or in the wrong place? Tax benefits to housing and inefficiencies in location and consumption.' *NBER Tax Policy and the Economy Book Series*, Vol. 28, pp. 63-96.

([28]) Gervais, M. (2002), 'Housing taxation and capital accumulation,' *Journal of Monetary Economics*, Vol. 49, No 7, pp. 1461-1489.

([29]) Chambers, M., C. Garriga and D. Schlagenhauf (2009), 'Housing policy and the progressivity of income taxation,' *Journal of Monetary Economics*, Vol. 56 No 8, pp. 1116-1134.

([30]) Sommer, K. and P. Sullivan (2014), 'Implications of U.S. tax policy for house prices, rents, and homeownership', *mimeo*.

([31]) Andrews, D (2010), 'Real house prices in OECD countries: The role of demand shocks and structural and policy factors', *OECD Economics Department Working Papers*, No 831. Hilber, C. A. and T. M. Turner (2014), 'The mortgage interest deduction and its impact on homeownership decisions', *Review of Economics and Statistics*, Vol. 96 No 4, pp. 618-637.

([32]) Van den Noord, P. (2003), 'Tax incentives and house price volatility in the euro area: theory and evidence', *OECD Economics Department Working Papers*, No 356; Andrews, D. (2010), *op. cit.*

([33]) Gattini, L. and I. Ganoulis (2012), 'House price responsiveness of housing investments across major European economies', *ECB Working Paper Series*, No 1461.

intensified and prolonged the recession. ([34]) Excessive borrowing could create significant financial pressure on households in the wake of negative income shocks and/or a sharp reduction in the value of property used as collateral, as experienced in several euro area countries during the recent crisis. Empirical analyses tend to confirm that homeowners with outstanding debt are more likely to face liquidity constraints, and thus adjust their consumption level significantly in the wake of unexpected income shocks. ([35])

Transaction taxes generate additional distortions for the whole economy because they tend to discourage property transfers, especially when statutory tax rates are high. ([36]) Ultimately, this results in a thin market and hampers the price discovery process, which could be particularly distortive in the case of immovable property. Labour market adjustment through labour mobility is also affected negatively by taxing the purchase of residential property heavily. ([37]) On the positive side, a tax on property transactions could theoretically deter speculation but this relationship remains empirically ambiguous. ([38])

Distributional aspects

It is important to explore the distributional consequences of housing tax arrangements, including exemptions and relief, from both an equity and macroeconomic perspective, because household heterogeneity can significantly affect aggregate outcomes. The distribution of recurrent taxes, of tax relief on mortgage interest and of the implicit gain stemming from the tax exemption of imputed rental across income classes is presented below, based on micro-simulation results obtained from the EUROMOD model.

Recurrent taxes. The results presented in Table III.2 suggest that recurrent property taxes, in addition to being relatively low, have a relatively neutral impact across income categories in Germany and Finland. In France, the effect of such taxes tends to be progressive up to middle-range incomes and then regressive for richer households compared with the middle quintiles. In the other countries considered, particularly Spain, property taxes generally appear to be regressive. The distributional patterns observed and the aggregate level of the tax burden are strongly affected by housing tax design (e.g. tax rates, relief granted to those on low incomes or other vulnerable categories), as well as by the distribution of tenure types across households. Levying the tax on a base that does not fully reflect property market values could also ultimately have an adverse redistributive impact.

Table III.2: **Recurrent property taxes in % of household gross disposable income by income quintile, 2012**

	BE	DE	ES	FR	IT	FI
I	1.25	0.32	3.31	1.80	0.99	0.2867
II	0.93	0.35	2.38	2.34	0.55	0.2078
III	0.62	0.30	1.66	2.76	0.45	0.1774
IV	0.51	0.31	1.21	2.54	0.35	0.1558
V	0.36	0.31	0.87	2.24	0.29	0.1691
Total	0.81	0.32	1.63	2.33	0.79	0.1981

Source: European Commission -Joint Research Centre, based on the EUROMOD model.

Mortgage interest tax relief. The tax subsidy for mortgage debt is likely to be a regressive instrument. High income households tend to benefit more both at the extensive margin (higher propensity to borrow and easier access to bank credit) and at the intensive margin (amounts borrowed). Tax breaks therefore exacerbate these discrepancies. In absolute terms, the induced reduction in tax liabilities — larger for richer people — implies a sizable revenue cost. Data from 2012 reported in Table III.3 show that this tax benefit is strongly regressive in Belgium and Spain. In Belgium, the deduction amounts to more than 2 % of net disposable income for the top two quintiles. In Spain, the impact of the tax credit on disposable income also differs significantly between the richest quintile (0.92 %) and the poorest one

([34]) IMF (2012), 'Dealing with household debt', *Global Economic Outlook*, Chapter 3, pp. 89-124. Sutherland, D. and P. Hoeller (2012), 'Debt and macroeconomic stability: An overview of the literature and some empirics', *OECD Economics Department Working Papers*, No 1006.

([35]) Cloyne, J. and P. Surico (2014), 'Household debt and the dynamic effects of income tax changes,' *Bank of England Working Paper Series*, No 491.

([36]) As an example, the temporary and unanticipated tax holiday recently granted from the stamp duty land tax in the UK has been shown to result in increased transactions for the affected properties by 8 %. See, Besley, T., N. Meads and P. Surico (2014), 'The incidence of transaction taxes: evidence from a stamp duty holiday', *Journal of Public Economics*, Vol. 119, pp. 61–70.

([37]) Econometric evidence from the Netherlands point to sizable effects: a 1 percentage point increase in the value of transaction costs as a percentage of the value of the residence would decreases residential mobility rates by (at least) 8 %. See Van Ommeren, J. and M. Van Leuvensteijn (2005), 'New evidence of the effect of transaction costs on residential mobility' *Journal of Regional Science*, Vol. 45 No 4, pp. 681-702.

([38]) Aggerer, N., M. Brown and E. Ross (2013), 'Transaction taxes, capital gains taxes and house prices', *Swiss National Bank Working Papers*, No 2.

(0.04 %). In France ([39]), Finland and Italy these policies also seem to have regressive effects, although they are relatively low in relation to household disposable income. Again, the considerable variation across countries depends on factors such as the frequency and distribution of debtors in the different income classes, the structure of personal income tax systems and the specific design of the relief (deduction vs. credit, unlimited vs. capped).

Table III.3: **Mortgage interest tax relief in % of household net disposable income by income quintile, 2012**

	BE	ES	FR	IT	FI
I	0.16	0.04	0.01	0.08	0.12
II	0.80	0.19	0.08	0.15	0.23
III	1.73	0.61	0.14	0.22	0.38
IV	2.25	0.85	0.29	0.26	0.43
V	2.04	0.92	0.32	0.21	0.39
Total	1.33	0.55	0.16	0.19	0.29

Source: European Commission -Joint Research Centre, based on the EUROMOD model.

Tax exemption for imputed rent. Although it is difficult to determine the actual taxation of imputed rent objectively from a political and practical standpoint, a quantification of the current tax benefits is useful in gauging the importance of housing consumption for homeowners. The impact of the exemption across income quintiles splits the countries into two groups depending on the relative importance of imputed rents in household disposable income (Table III.4). The exemption leads to slightly increased inequality in Austria, Germany and Spain, while the opposite is true for Finland, France and Italy.

Table III.4: **Imputed rent exemption in % of household disposable income by income quintile, 2012**

	BE	DE	ES	FR	IT	AT	FI
I	2.36	0.35	0.53	2.15	6.67	1.04	7.81
II	5.17	1.28	1.96	1.54	4.15	2.07	7.26
III	5.01	1.62	3.22	1.67	4.15	2.29	6.99
IV	4.58	1.89	3.45	1.42	3.71	2.57	6.65
V	4.22	1.99	3.47	1.40	3.32	2.20	6.24
Total	4.23	1.39	2.61	1.65	4.39	2.02	7.05

Source: European Commission — Joint Research Centre, based on the EUROMOD model.

([39]) In the case of France, the results refer to the mortgage stock receiving the tax credit until 2010, when the relief was abolished with a grandfathering clause.

Results are less clear-cut in Belgium, where the lowest incomes benefit the least from the imputed rent tax exemption; the relative gain from the exemption is highest at the second quintile, and then decreases with income. By contrast, in Italy and Finland the relative gain from the exemption decreases unambiguously with income, with the lowest quintiles reaping the largest benefit. Overall, the differences observed across countries depend on several factors: institutional features, such as the progressivity of the personal income tax regimes, the position of homeowners in the income distribution and the value of imputed rents with respect to income. The risk of regressivity increases where households are asset-rich but income-poor.

Conclusions

In a context where the contribution of property taxes to the budget is relatively low, the favourable treatment of owner-occupied housing suggests additional scope for intervention, particularly by abolishing or phasing out unjustified relief that entails an additional revenue cost, brings about significant economic distortions and is potentially unfair. The rebalancing of property taxation from transaction taxes towards recurrent taxes, ideally ensuring that the tax base adequately reflects property values, could partly offset the subsidy granted to owner-occupied housing from other tax provisions.

This tax expenditure leads to distortions in tenure choices and the allocation of capital and, in the presence of a relatively rigid supply, are ultimately capitalised into higher asset prices, which is contrary to the intended aim of fostering home ownership. Moreover, the tax breaks granted to mortgage interest payments are likely to encourage leveraged housing investment. These distortions are a potential risk to macroeconomic and financial stability.

All in all, since recurrent housing taxes are relatively growth-friendly compared with other taxes, particularly income taxes, they could serve as a potential source of revenue for consolidation purposes or to finance a structural shift away from labour taxation. In addition, policy action may be needed to address design issues that generate significant economic distortions, in particular mortgage interest relief and high transaction taxes.

Distributional issues, particularly when it comes to indebted and liquidity-constrained households, should be taken into account when considering tax reforms to improve the efficiency of housing taxation. In this respect, abolishing tax relief on mortgage interest would generally have a positive distributional impact, as the highest incomes benefit most from the tax break. By contrast, increasing the yield from recurrent taxation could impose an excessive burden on asset-rich, income-poor households. Such adverse redistributive effects could be mitigated by appropriate adjustments to recurrent tax design.