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Possible reforms of real estate taxation: Criteria for successful policies

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EXECUTIVE SUMMARY

A tax on residential property can be advocated on efficiency grounds, acknowledging that taxes on immovable property are found to be among the least detrimental taxes to economic growth. There are different approaches to taxing residential properties. If it is taxed as capital investment, tax neutrality should be achieved by levying a capital tax on the (net) return on all forms of investments. Alternatively, the tax can target the consumption service of the house, thereby approximating the VAT and be levied on the rental value. Finally, the tax can also be regarded as a charge paid for the provision of local public services.

In most cases, residential property is regarded as an investment which should ideally be taxed as other investments to achieve tax neutrality. The first best policy implies taxation of imputed rents (the return) and allowing for deduction of mortgage interest payments. Experience shows, however, that taxes on the return of residential property are politically difficult to sustain at a level that balances the allowed cost deductions particularly in times of rising housing prices. A neutral system that allows interest mortgage deductibility risks turning into a strong tax subsidy over time, which can distort the allocation of capital by contributing to over-investment in housing and lead to growing incentives for debt accumulation by households. Acknowledging this process, the preferred second-best policy would be to remove mortgage interest deductibility and introduce a (lower) recurrent tax on property. This tax can be regarded as a proxy for taxing the return on or the consumption service of the house.

It is essential to regularly update the tax base according to price developments on the housing market for the recurrent tax to be properly levied on the value of the asset or consumption service. The use of old valuations as a tax base neglects changing conditions on the market, which risks contributing to price imbalances between different housing areas and inequality between house owners. It also risks eroding the tax revenue over time due to price inflation. Updated valuations raise the tax burden for house owners, which particularly affect low income but asset (housing) rich households. Such specific negative distributional impacts can be addressed through mitigating measures, e.g. through phasing in the impact on the tax base, caps on the tax payments in relation to income and/or possibilities to defer tax payments for vulnerable households.

1. INTRODUCTION

Taxation of housing is relevant in view of considerations concerning consolidation needs as well as the functioning of housing markets and its potential impact on macro-economic stability. Empirical research indicates that taxation of immovable properties is less detrimental to growth than other types of taxes (Johansson et al. 2008). The fact that taxation of real estate is relatively low in many Member States (roughly 1.5% of GDP on EU average) suggests that there is scope for shifting the tax burden from more distorting taxes (labour, corporate capital) on to real estate and thereby enhancing conditions for economic growth. Another issue is to which extent biased tax provisions favouring housing investments and debt have contributed to the increase in housing prices and debt leverage, and thereby also to the housing market bubble. There is empirical evidence that countries that favour homeownership through a favourable tax treatment of mortgage debt financing also have higher ratios of mortgage debt to GDP. Inversely, analyses of past tax reforms show that a reduction of the mortgage interest relief has resulted in lower mortgages in relation to the house value (Keen et al. 2010).

This paper provides a survey of theoretical and empirical findings regarding the taxation of residential property, including practical difficulties of implementing such taxes. Property taxes are one of the most unpopular types of taxes. Thus, it is politically difficult to implement any changes of the taxation of residential property that implies tax increases or major redistribution of tax payments. Moreover, in virtually all EU countries, these taxes are levied at the local level. Therefore, any major changes pose challenges for intergovernmental fiscal frameworks, requiring a reformed system of inter-jurisdictional transfers.

This paper also presents operational criteria to assess the adequacy of policy responses in the area of housing taxation, following the approach developed in the EPC's Lisbon Working Group (LIME). ([1]) LIME recommended distinguishing between *dimensions to watch* for in order to achieve success and *conditions for success*, which are of prescriptive and normative nature. The former requires considering specific aspects without giving concrete recommendations in favour of a predetermined policy stance. The latter (conditions) recommend a specific and concrete policy design. However, a "one-size-fits-all-approach" should be avoided and any horizontal criterion, even very sound, might need to be adapted to country-specific circumstances.

([1]) LIME worked to develop operational criteria to assess the adequacy of policy responses. This was done on the basis of a literature review which sought to develop general criteria for successful reforms in a particular policy area as well as criteria for success at the level of policy instruments.

2. ECONOMIC BACKGROUND FOR RESIDENTIAL TAXATION

Taxes on immovable properties have been used for a long time as property ownership is generally easy to establish and identify, and thus difficult to evade. In essence, its fixed geographic location makes it a good tax base, which can be used in particular for financing local government.

A distinction should be made between land and buildings, as a land tax would tax an economic rent and not distort economic activity. As the supply of land is relatively fixed and inelastic, a land tax would not discourage or change any economic activity. Thus, the economic distortion would be small. The tax would fall fully on the land owners through a lower price of the land, so the tax would be fully capitalised into land prices. ([2]) A land tax would also give incentives to use the land in a productive way. In order to implement a tax on land, the valuation system needs to be able to separate the value of the land from the buildings. This should be possible through recognized methods, even in cases of thin markets. (Mirrlees et al. 2011)

Commercial buildings should ideally not be taxed due to efficiency considerations, alongside other physical capital used by a firm ([3]). Taxation of buildings will depend on their use (commercial or residential). A commercial building is an input into the production process like other types of physical capital. It is an intermediate input into production, and the tax system should not influence or distort firms' choices about the production process. ([4])

In contrast, a recurrent tax on residential housing supply is generally considered as less adverse than other types of taxes, as it has little impact on the decisions of economic agents. It has indeed relatively little influence on labour supply, investment in human capital, production and innovation compared to other taxes. Residential property is thus considered as an efficient tax base as the distortion related to the implementation of a recurrent tax on it is small.

Increasing recurrent taxes on immovable property would correct the misallocation of capital towards housing, caused by the preferential tax treatment of owner-occupied housing. The latter is inherent in most countries' tax systems through the deductibility of interest on housing loans and/or the exemption from capital gains tax. It results in a pre-tax rate of return on housing investment below the pre-tax rate of return on other investment, thus driving savings away from more profitable investments. Increasing recurrent taxes on immovable property would reduce this preferential treatment, thereby increasing allocation efficiency and growth (Arnold et al., 2010).

Tax relief is substantial in several Member States, and in particular in the Netherlands, the Czech Republic, the Nordic countries, and Greece. An indicator that measures the tax relief (reflecting tax systems in 2009) in terms of the wedge between the market interest rate and the after tax debt financing cost, is presented in Andrews et al. (2011). The indicator (Graph 2.1) takes into account the deductibility of mortgage interest payments (including potential time limits or ceilings) and tax credits for loans, but does not include taxation of imputed rents or recurrent property taxes. Even if account is taken of recurrent taxes or taxes on imputed rents, many Member States provide a tax subsidy to investments in residential properties that, apart from its inefficient allocation effects, tends to increase house prices and promotes debt financing (see section 3.2).

([2]) The supply of land may not be completely inelastic as it can be improved in various ways, and planning regulations can change its use.

([3]) However, a tax on land should also cover land used for commercial buildings.

([4]) There are special cases where Member States aim at taxing windfall profits in certain industries through special forms of property taxation, e.g. on generating capacity. However, a more detailed analysis of the taxation of commercial properties is outside the scope of this paper.

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Box 2.1: **Policy criterion 1 (condition for success) "Shift from personal and corporate income taxes to consumption and property taxes in order to increase GDP per capita in the long run"**

The low share of property taxes to GDP in the majority of countries indicates that there is room to shift taxation towards this tax base, which would materialise in stronger growth in the short-to-medium run. A shift to housing taxes can mitigate the output losses associated with fiscal consolidation in the short run.

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Various empirical studies have confirmed that recurrent property taxes, particularly recurrent taxes on immovable property, are least detrimental to growth among different tax categories. Johansson et al. (2008) presents a "growth ranking" of taxes which has implications for the tax structure. Recurrent property taxes are found to be least detrimental to economic activity, followed by consumption (and other property taxes), labour income taxes and, finally, corporate income taxes. This is in line with the theoretical reasoning on the distortionary effects of taxation on capital income (through the negative impact on investment and productivity enhancements) and labour income (through disincentives for labour supply and human capital formation).

Graph 2.1:   **Tax relief on debt financing costs of homeownership, 2009**
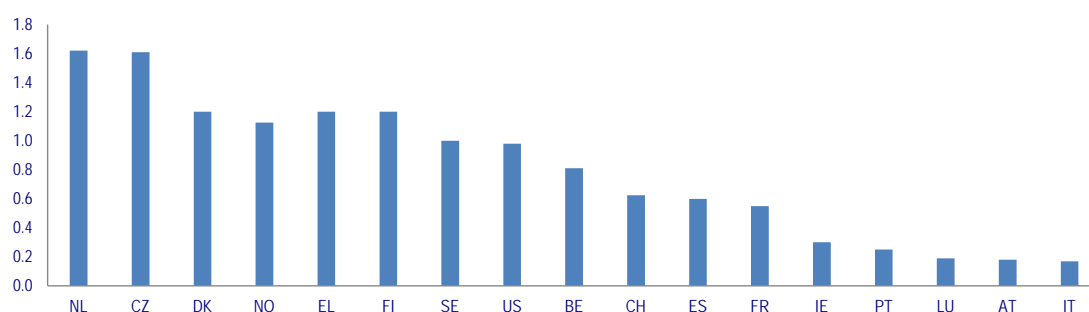
Note: Wedge increasing in the degree of tax relief. The indicator takes into account if interest payments on mortgage debt are deductible from taxable income and if there are any limits on the allowed period of deduction or the deductible amount, and if tax credits for loans are available. For countries that have no tax relief on debt financing costs, this indicator takes the value of zero. See Johansson (2011) for details.
Source: Andrews et al. (2011).

Therefore, a shift from (personal and corporate) income taxes to consumption and property taxes increases GDP per capita in the long run, which materialises in stronger growth in the short-to-medium run to reach this new equilibrium. Various estimates, either based on historical data and panel estimation or model-based simulation of future policy changes, seem to confirm this result. Box 2.2 presents these empirical results in more detail. For instance, simulations based on the Quest III model suggest that using housing taxation to consolidate public finances would have a moderately negative impact on GDP per capita in the short-run, but would lead to higher GDP in the long run through the fiscal space for lower labour taxes that is created by lower government debt.

Box 2.2: Empirical results on tax shifting and its impact on GDP

Arnold (2008) provides detailed empirical evidence on the effects of the tax structure on long-run GDP by introducing a set of tax structure indicators into a panel regression of GDP per capita covering 21 OECD countries over the period 1970 to 2005. ([1]) In these estimations, the impact of a shift from income to consumption and property taxes on long-run GDP per capita is always positive, while it is negative for the opposite shift. Results breaking up the effect of a combined shift towards consumption and property taxes into its two components show that, while both of them are associated with higher GDP per capita, the positive effect is significantly larger for property taxes. Further separating recurrent taxes on immovable property from all other property taxes (such as transaction taxes) shows that it is the share of recurrent property taxes which drives the positive impact on GDP. Furthermore, based on a lower number of countries that separate data for recurrent property taxes on households from those levied on corporations, the regressions suggest that recurrent taxes on immovable property of households have the least adverse effect on GDP per capita.

Estimates provided by Heady et al. (2009) suggest that – at the OECD average – a revenue-neutral shift of taxes from income taxes to consumption and property taxes by 1% of GDP would increase GDP per capita in the range of ¼ to 1 percentage point in the long run, depending on the empirical specification. ([2])

The relationship between individual taxes and growth described above are broadly confirmed by calculations using the Quest III model in the context of fiscal consolidation. ([3]) They show that, in the current context of required permanent budgetary consolidation, tax increases in housing (and consumption) taxes can be implemented without necessarily generating negative effects on output in the medium to long term. This holds both in the case where either of these taxes is unilaterally raised to achieve a targeted 1% of GDP consolidation and, particularly, where consolidation goes along with a tax shift from income towards housing and consumption taxation. In an attempt to simulate the long-run consequences of fiscal consolidation on output, the model distinguishes labour taxes, corporate profit taxes, consumption taxes (VAT) and property taxes as possible levers of revenue-driven consolidation.

Assuming a 1%-of-GDP increase in either of these taxes that are subsequently entirely used to reduce the deficit, the simulation results suggest that a consolidation through an increase in corporate profit taxes would lead to sizeable GDP losses in the long run as investment is depressed and the capital stock declines (Graph 2.2). Consolidation through higher labour taxes would yield a comparable short-term GDP loss, but the GDP impact would turn positive after approximately ten years. An increase in VAT and particularly property taxes would lead to smaller initial output losses (0.1-0.2 percent of GDP) and to positive GDP effects already after 3-4 years due to the fiscal space that becomes available as a result of the reduction in government debt. In the long run, both would lead to higher GDP (by 0.4-0.5 percent compared to the baseline scenario of no consolidation) than a consolidation based on higher labour taxes. ([4]) Similar simulations using the Quest model also indicate that a shift from the most distortionary taxes (on labour and capital) to the least distortionary taxes (consumption, housing) could mitigate the output losses associated with fiscal consolidation in the short run and have a positive impact on GDP in the long run. ([5]) According to these simulations, a consolidation package reducing unproductive spending (government purchases and transfers) and relying heavily on taxing consumption and housing while reducing income taxes would lead

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([1]) The estimation set-up is a dynamic panel error correction model, where, controlling for the overall tax burden and basic growth determinants, the share of certain tax instruments in total revenues is introduced into the regression. By omitting the shares of other tax instruments, it is assumed that the latter are absorbing the changes in those taxes that are included in the regression, to maintain revenue neutrality. This allows drawing conclusions on the impact of a revenue-neutral shift from one tax instrument to another on long-run GDP.

([2]) For further support from growth regressions and model simulations see European Commission (2006, 2007), Gray et al. (2007), Gracia-Escribano and Mehrez (2004), Bleaney et al. (2000).

([3]) See European Commission (2010), Ch. 6.
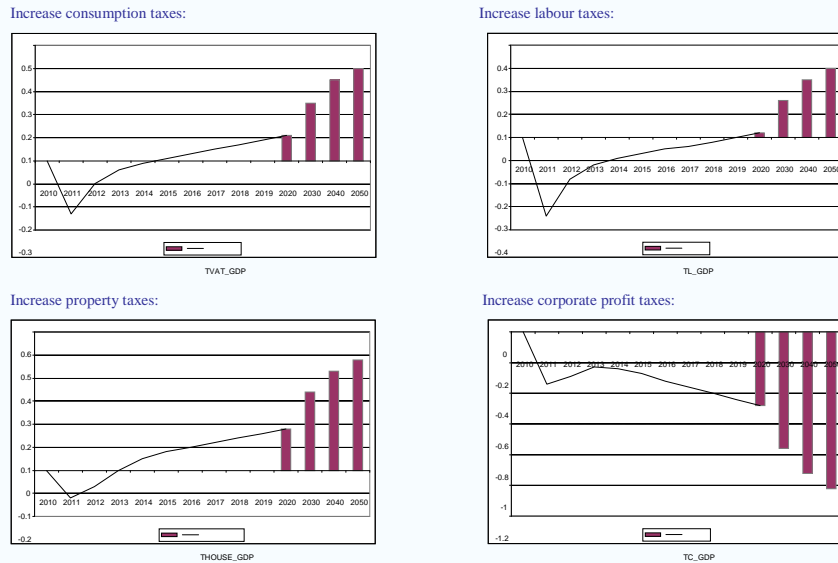
([4]) See European Commission (2008 and 2010).

([5]) See Roeger and in 't Veld (2010) on these simulations combining the effects of a fiscal consolidation with that of tax shifts.

to a minor and short-lived fall in GDP. Given the rise in potential output entailed by such a tax reform, output would be almost 1 percent higher than baseline in the long run (Table 2.1). ([6])

Graph 2.2: Permanent fiscal consolidations (reduction in the deficit-to-GDP ratio by 1pp.)

Increase consumption taxes:

Increase labour taxes:

Increase property taxes:

Increase corporate profit taxes:

Note: permanent change in fiscal instrument of 1% of baseline GDP, accompanied by permanent reduction in government's deficit to GDP ratio by 1%p. Labour taxes adjust to target deficit increase.
Source: Roeger and in 't Veld (2010).

Table 2.1: Fiscal consolidation combined with tax reform (% of baseline EU GDP)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2030	2040	2050
GDP	-0.2	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.7	0.8	0.9
VA private sector	-0.2	0.0	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.8	0.9	1.0
Employment	-0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4
Consumption	-0.3	0.0	0.1	0.2	0.3	0.4	0.4	0.5	0.6	0.6	1.1	1.4	1.6
Investment	1.7	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6

Note: permanent reduction deficit-to-GDP ratio of 1% of GDP through targeted adjustment in spending and taxes: cuts in transfers and government purchases of 0.3%p each, reduction in tax on labour and corporate profit tax 0.3%p each, and increases in tax on consumption and housing property of 0.5%p each.
Source: Roeger and in 't Veld (2010).

Lendvai (2011) uses the QUEST III model to compare the impact of a permanent tax increase on property with a similar increase of the VAT. The results indicate that even if both measures achieve the same debt reduction, the property tax results over time in a larger negative impact on GDP and a deterioration of the house stock. The adverse impact on consumption is, on the other hand, larger for an increase of the VAT. These results reflect the fact that the property tax is modelled as a capital tax. A tax on property results in less investment in the housing stock, which over time results in an erosion of both the housing stock and the related housing services. This analysis underlines the consequences of a tax on capital investments, i.e.

([6]) In contrast to the above-reported results based on partial analysis, these results derive from a dynamic general equilibrium model. Important features of the model include partly Ricardian household behaviour, full credibility of the consolidation strategy and the assumption of a targeting rule for labour taxes aiming for the (1 pp.) lower deficit target. This means that the fiscal space that becomes available through the decumulation of government debt (and the ensuing lower costs of servicing this debt) is used for gradually reducing labour income taxes. This raises employment and boosts GDP in the long run.

Box (continued)

reflecting the fact that a property tax will have a negative impact on housing investments. However, the model does not take into account the implicit subsidy to housing investment via tax systems; any efficiency-enhancing re-allocation of investment is thus not reflected in the results. OECD (2010) is similarly cautious against the use of property taxation in cases where there is an under-supply of houses with an appropriate quality (in particularly for developing economies). As discussed above, many Member States have, however, various tax provisions in place which favour investments in residential housing, which potentially has contributed to an over-allocation of capital to the residential housing sector.

3. APPROACHES TO DESIGNING RESIDENTIAL PROPERTY TAXATION

Several approaches to designing taxes on residential property have been discussed in the literature and are applied in different countries. One difficulty is due to the fact that owner-occupation of a house involves both a consumption and an investment decision, which potentially has an impact on the design of the tax. In most cases, the taxation of immovable property is (more or less) related to the capital taxation rules. Alternative approaches are to regard the real estate tax as a tax on the consumption of housing services or as a payment for local public services. The various approaches will be discussed below, following a brief look at other forms of taxes on immovable property, namely transaction taxes.

3.1. TRANSACTION TAXES ON IMMOVABLE PROPERTIES

Transaction taxes on the transfer of immovable properties, levied in the large majority of EU Member States, are relatively distortionary and impede labour mobility. Transaction taxes discourage, like recurrent taxes, ownership of properties in relation to possible other untaxed assets, thereby possibly correcting for allocation inefficiencies induced by interest rate deductibility. However, it also discourages transactions that would allocate these properties more efficiently (see Johansson et al., 2008). The market will be thinner and the price discovery process, which is already slow in the housing market, could be hampered. The tax also has a negative impact on labour mobility and induces costly commuting behaviour.

Graph 3.1: **Revenues from property taxes, 2010 (in % of GDP)**
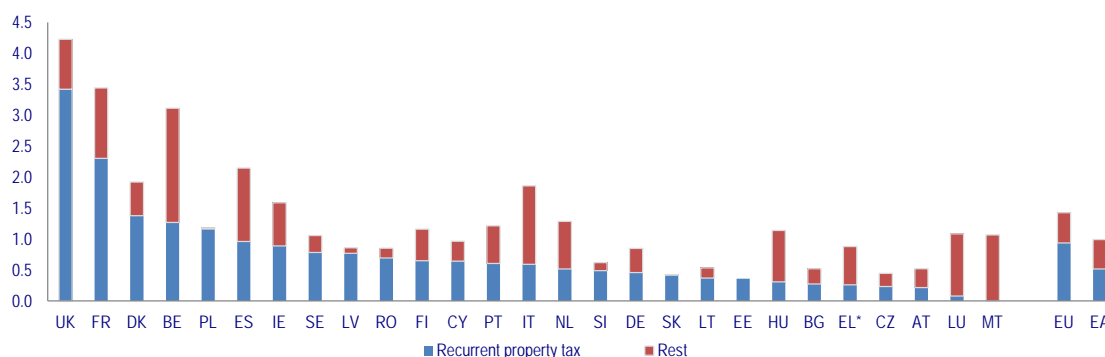
Note: Ordered by revenues from recurrent property taxes. "Other taxes on property" includes taxes on net wealth, inheritance, gifts and other property items as well as financial and capital transactions. Data does not include PIT on imputed rents. * Data for Greece is provisional.
Source: Commission services.

Moreover, revenue from transaction taxes is often highly volatile as the revenue development in the crisis has shown. The volume and price of transactions tends to follow the business cycle. While dampening economic activity, significant windfalls from transaction taxes in boom phases tend to lead policy makers to assess the budgetary situation too optimistically. Applying standard (average) tax elasticities to correct revenues for purely cyclical components typically falls short of capturing such windfall gains, thereby overestimating structural revenues and the budget balance. Conversely, the

> *Box 3.1:* **Policy criterion 2 (condition for success) "Shift away from (high) taxes on residential property transfers to recurrent tax on residential property"**
>
> A transaction tax reduces the number of transactions and hampers the price discovery process. It can affect labour mobility negatively, and discourages transactions that would allocate the housing stock more efficiently. A recurrent tax on residential property is less distortive.

reversal of such windfalls then squeezes budgetary room for manoeuvre in downturns, particularly if earlier windfall gains have been used for (unjustified) tax cuts. On the positive side, a transaction tax on real property transactions could deter speculation and thus possibly help to reduce the risk of housing market bubbles. However, this relationship remains empirically ambiguous. It would also prove politically difficult to use the transaction tax as a timely policy response to mitigate price increases in the housing market. Macro-prudential policies are available that provide more targeted measures to mitigate the creation of housing market bubbles (e.g. capital requirements, loan-to-value limits etc.). (see Crowe et al., 2011).

3.2. RESIDENTIAL PROPERTY TAX AS PART OF THE CAPITAL INCOME TAXATION

An ideal (first-best) tax system aims at tax neutrality, which implies that returns from residential property should be taxed as other capital income. Thus, the return from the house, less depreciation allowances, maintenance costs and interest payments, should be subject to personal income tax or the capital income tax at the personal level ([5]). This implies that it is the net return that should be taxed.

In the case of owner-occupied housing, this principle of neutrality translates into taxing an imputed return, while at the same time allowing for mortgage interest deductibility, deduction of maintenance costs and depreciation (first-best solution). In consistency with the treatment of other financial assets, capital gains from housing transactions should also be taxed in order to achieve neutrality vis-à-vis other assets.

Imputing the income from the house can be done on the basis of different approaches. One possibility is to base it on an estimate of the market based rent that could be realised if the property was put up for rent. This should achieve a neutral tax treatment of renting vis-à-vis owner-occupation. Another approach would focus on neutrality vis-à-vis other financial investments, i.e. the base is the opportunity cost of investing the money in another comparable financial asset. In both cases, the return should be proportional to the market value of the property. To achieve neutrality vis-à-vis other investments, the same tax rate should be applied on the imputed return and the same rules be applied concerning interest deductibility. One issue is thus to determine which type of neutrality is considered most relevant for an efficient allocation of resources in the economy, tax neutrality between renting and owning houses or between investments in different types of capital in the economy (SOU, 2004:36).

Only very few Member States (NL, LU) tax imputed rents on the main dwelling as part of the income tax system, and the rates or the tax bases are normally too low. ([6]) The latter holds true even if the recurrent property taxes levied are regarded as a proxy for a tax on imputed rents. At the same time, many Member States allow for deductibility of mortgage interests in their tax systems. This results in a subsidy for investments in residential properties through the tax system, and more importantly, incentives through the tax deductibility for investors to take on debt.

Another aim of deductibility of mortgage interest payments is to induce the household to buy their main residence and thus promote home-ownership. The presumption is that homeownership generates positive externalities for the society. It can be vehicle for wealth accumulation as the owner will take a longer term view on his consumption behaviour and promote savings. Better outcomes for children of homeowners as well as more engagement in the local community are other positive externalities that motivate public policies favouring homeownership. However, it is often difficult to clearly isolate the

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([5]) In a comprehensive income tax system, it would be taxed as part of the (progressive) personal income tax, while in a dual-income tax system the tax rate on capital income at the personal level would apply.

([6]) BE, ES and IT tax imputed rents only for other than main dwellings (see Annex 1 and OECD (2011c) for details).

positive impact of homeownership as the relationships might be casual or suffer from endogeneity bias. A drawback of homeownership is that it tends to reduce labour mobility. ([7])

Subsidising home ownership through tax relief does not go without risks in terms of a loss in economic efficiency through misallocation of resources and a bias toward debt. This policy encourages households to invest too much in housing in relation to other assets. Tax subsidies through the deductibility of mortgage interest payments also favour household debt accumulation particularly in housing price booms, with potentially adverse effects on bank solvency or liquidity in cyclical troughs and consequent risks of credit constraints for firms and households.

Tax subsidies through the deductibility of mortgage interest payments also risk being a regressive policy and being detrimental to social equity. First, no clear relationship has been found between the degree of tax relief and the aggregate homeownership rate in a cross-country comparison of OECD-countries. Second, as the tax subsidy normally takes the form of a deduction against earned income, and not the form of a tax credit, it is worth more for high-income earners. This is consistent with the finding that homeownership inequality, defined as the ratio of the homeownership ratio in the top income quartile to the ratio in the second quartile, appears to be higher in countries with generous tax subsidies (Andrews et al. 2011).

To the extent that reduced interest costs are capitalised into higher house prices, a tax policy with interest rate deductibility would contribute to higher house prices. The policy also risks being inefficient or even counter-productive in terms of promoting homeownership and social equity. Capozza et al. (1996), Harris (2010) and Agell et al. (1995) find that a removal or a reduction of the interest rate deductibility would lower house prices significantly in the U.S. and Sweden respectively. Recent empirical results also indicate that demand shocks (e.g. through financial deregulation) have a greater likelihood to be capitalised into real house prices when the country provides generous tax reliefs for mortgage cost payments (Andrews 2010).

In general, social objectives can be better attained by direct subsidies (subject- rather than object-related subsidies). Direct grants can generally be designed so that they target the relevant households better. Tax provisions are, by their nature, more general in scope and can often be used also by households that do not really need these tax subsidies. As a consequence, the foregone revenue will normally be larger than the cost of the corresponding grant.

Tax subsidies for mortgage interest payments have also been found to be correlated with price volatility on the housing market. Van den Noord (2005) provides evidence for higher price volatility in countries with more generous tax reliefs for homeownership. The study covers the 1970-2001 period and includes eight euro-area countries. More recent empirical results in Andrews (2010) also indicate that more generous tax subsidies for mortgage debt could lead to larger house price volatility.

In this context, a second-best design of the taxation of owner-occupied housing would be to (i) not allow mortgage interest deductibility and (ii) levy a (lower) recurrent tax on real estate properties. In this way, housing investments would be taxed consistently with other capital assets and the tax system would not favour debt. In order to relate the tax to the return from the house, it remains important that the tax base is based on a properly updated market value of the house. Moreover, the tax level could broadly take account of the tax treatment of interests (i.e. the absence of mortgage interest deductibility in relation to other assets) and of capital gains (possibly favourable).

Capital gains from housing transactions should also be taxed as other capital gains, to ensure a neutral tax treatment vis-à-vis other assets. In practice, many countries reduce, exempt or defer the tax

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([7]) See Andrews and Caldera Sanchez (2011) for an overview of benefits and costs of homeownership (box 1).

> ### Box 3.2: **Policy criterion 3 (point to watch) "Ensure that the residential property tax system does not favour debt"**
>
> A system with mortgage interest deductibility often develops into a favourable treatment of debt, as it is politically difficult to tax the corresponding returns on the house at a required level. The detailed design of the residential property tax system can vary, but it should not provide tax incentives for households to take on debt.

on the capital gains made on the primary residence. If taxed, the capital gain is often exempt after holding the house a certain period (often 2-3 years for the main residence). A condition for exemption or deferral can in some cases be that the gain is reinvested into another house. ([8])

A capital gains tax on housing transactions generally suffers from the same set of drawbacks as a transaction tax, i.e. it creates lock-in effects and risks reducing labour mobility. Moreover, there are practical difficulties related to e.g. the taxation of inflation or gains due to improvements. A consistent tax treatment could, however, be relevant for compliance reasons, i.e. in order not to create opportunities for tax avoidance through shifting income into tax-free capital gains.

3.3. RESIDENTIAL PROPERTY TAX AS PART OF CONSUMPTION TAXATION

If the residential property is considered as a durable consumption good rather than a capital good, it should be taxed with VAT. Most Member States apply VAT on construction, alteration and maintenance of immovable property, with several Member States providing reduced rates on renovation and repair works of private dwellings. Rental of residential properties is normally exempt or zero-rated. A distinction is also often drawn between the VAT treatment of sale and rental of residential vis-à-vis non-residential immovable property, with the latter being levied with the VAT. Sale of new buildings is levied with VAT in about 2/3 of the Member States and exempted in the other third of the States, while construction works of new buildings are normally covered by VAT. This implies that the VAT is generally levied on the construction of a residential house, but not always on the final sale of it. (European Commission, 2011c and OECD, 2010)

VAT can be levied on the first sale of all new houses, as one way to tax the consumption of housing service. The tax would then be regarded as a levy on the present value of the stream of service that the housing will generate in the future. This would be a parallel treatment to other durable goods, e.g. cars or refrigerators. It also implies that subsequent sales should not be taxed nor the yearly consumption service, as the first application of the VAT covers all future services. (OECD, 2010a)

An alternative approach to tax housing services would be to tax the consumption value of the housing service (i.e. imputed rents) every year with VAT, as other services. A practical problem in this context is again difficulties to properly and fairly estimate the housing service for owner-occupied housing. Thus, most countries do not apply this approach, and to achieve equal treatment, rental payments are not VAT-liable either. In the case of UK, the Mirrlees review proposes a Housing Service Tax to approximate a VAT on housing services. It reflects the fact that the UK applies a zero VAT-rate on construction and sale of residential property, and difficulties of covering both new and old houses. The proposal is a tax on the flow of housing service consumed, which is based on the rental value of each property, both owner-occupied and rented. (Mirrlees et al. 2011)

([8]) Among EU-OECD countries, there is no capital gains taxation of primary residences in BE, DK, EE, FR, DE, EL, IT, NL, while gains are tax-exempt after a certain holding period in AT, CZ, FI, PL, SK, SI and tax-exempt or deferred if reinvested in PT, ES, SE. For details, see OECD (2011c).

The imputed rental return of the house should normally not be taxed with a consumption based approach as the VAT is levied on the rent (i.e. the service provided). This is consistent with the tax treatment of services provided by other durable consumption goods. Moreover, the costs of durable consumption goods are not tax deductible, which implies that mortgage interest tax deductibility would normally not be allowed under this type of tax treatment (Lind 2000 ([9])). To achieve consistency between the tax treatment of the consumption and investment aspects of housing, Mirrlees et al. (2011) proposes to tax housing services as a substitute for the VAT, which ideally should be combined with a capital income tax on above normal returns on owner-occupied and rental housing. This could be achieved either through a rate-of-return allowance that is deducted against the (imputed) rental income or through an adjustment of the base price when calculating the capital gains tax, which is to be levied at the level of the income tax.

Institute for Fiscal Studies (2011) highlights the fact that a VAT on housing services would act as a capital levy on the housing wealth of the consumer and owner. It would also tend to redistribute from older generations with savings, to younger generations, who still have to save. However, if the VAT is rather levied on construction and the sale of new houses, it would affect market prices. If house prices increase due to the VAT, the tax would benefit existing house owners on the expense of to-be house owners.

3.4. A CHARGE FOR LOCAL SERVICE

Explicable by its clear association with the location of the property it is levied on, property taxation has also been regarded as a payment for local provision of public service, i.e. as a user charge. Tiebout (1956) and Hamilton (1976) analyse the conditions ensuring efficiency of resource allocation in the local public sector. In this line of work, a property tax is regarded as a payment in exchange for benefits derived from the provision of local public service, and thus it is considered as non-distortive. It should not affect capital intensity or aggregate land or property values as the tax only reflects the level of local public service.

Most empirical work, however, indicates that local property taxes should rather be regarded as a capital (or consumption) tax which does have an impact on house prices and the allocation of housing investments (see Zodrow (2007) for an overview). However, in terms of their practical implementation, recurrent taxes on immovable property are usually levied by the municipal level to finance local services. Often the central government sets certain bands in order to limit the discretion of municipalities' in determining the tax rates.

([9]) Lind (2000) discusses the possibility to use the recurrent residential property tax to compensate for maintaining interest rate deductibility in the Swedish tax system if the consumption good approach is applied.

4. SPECIFIC ISSUES RELATED TO RESIDENTIAL PROPERTY TAXATION

4.1. REVALUATION OF THE TAX BASE

Independent of the approach chosen for the design of the tax, the base should reflect the value of the property. This is the case both when the taxation aims at taxing the housing service and the return on the investment. The rents charged for the housing will reflect the value of the property in well-functioning markets. Hence, the quality of the service received will depend on location of the building and its standard, which will be reflected in its value. If the tax is part of an overall tax on capital, it should be levied on the market value of the house in order to correctly tax the various types of assets and thus not distort the allocation of capital.

Most countries in the EU use, however, outdated property values. Some examples include Austria, which applies cadastral values from 1973, while Cyprus applies values from 1980, and the UK from 1991. Belgium (values from 1975) and Germany (from 1964) update the cadastral values with inflation or a corrective factor, but not with house price developments. A few Member States show examples of good practice and undertake regular updates. The Netherlands does it annually, Denmark biannually and Sweden every third year.

Rising house prices result in higher tax liabilities if the tax base properly reflects the market valuation of the property, which will result in political pressures to freeze the valuation (or reduce tax rates). Both Sweden and Denmark froze their tax bases at certain points during the latest house price boom. Moreover, once the tax base is frozen, it becomes politically very difficult to update the tax base as reflected by the actual practice across the EU. Mirrlees et al. (2011) points out that any revaluation of properties creates losers and winners, with losers often being very vocal. As property market prices diverge from the valuation used for taxation purpose, both the economic implications and the political difficulties of a revaluation grow. This is quoted as a case where the "tyranny of the status quo" blocks a desirable and efficient reform.

In practice, the valuation of properties could be based on market values, or, alternatively, on a set of rules based on key characteristics which are linked to the market value. The later could help to reduce both costs and the number of appeals as it is a less detailed approach. A possibility is also to only tax a certain percentage of the property value, thereby leaving some room for the various difficulties involved in correctly reflecting the market value of the property. Property valuation for tax purposes can also prove useful for other tax purposes, e.g. for wealth, inheritance, and transaction taxes as well as for tax compliance purposes (e.g. consistency checks between property wealth and taxable incomes). (OECD 2010)

The failure to regularly update property values risks leading to an erosion of the tax base and thus revenue over time due to inflation if no adjustments are made. However, one consequence of the failure to update property values is the fact that the tax revenue has been relatively stable as it has not experienced the impact of cyclical fluctuations of property values. There are various ways to phase in the adjustment of the property value, which also would help to reduce the cyclicality of the tax revenue.

Box 4.1: **Policy criterion 4 (condition for success) "The cadastral value (i.e. the tax base) should be regularly updated according to market values"**

In order to properly tax the imputed rent, i.e. the return or consumption value, the assessed value needs to reflect the market value of the residential property.

4.2. POLITICAL ECONOMY AND DISTRIBUTIONAL ASPECTS

Taxation of imputed rents or recurrent taxes on residential property which reflect market values are very unpopular. It is a highly visible tax and one of the few taxes which are normally paid directly by the tax payer. In the UK, for example, 88% of the tax is paid directly by firms to the tax administration. It is basically only the recurrent property tax (council tax) and the vehicle excise duty that are paid directly by the tax payer (Mirrlees et al. 2011).

There is also evidence that a tax based on property values is regarded as unfair. Lyons (2007) found resistance to the idea that the tax burden should reflect property values and thus rise with rising valuations. One important aspect is that the tax does not reflect a real cash flow, but rather an imputed, fictive one that does not necessarily reflect the owners' situation. Volatile, and in particular rising house prices thus can have a substantial impact on the tax liability, while the tax payers' income situation remains unchanged (see e.g. Boije and Lind 2002). Other features that add to this negative perception is the fact that housing is regarded as a basic need (rather than a pure investment), and that any change of housing would involve large transaction costs.

The distributional implications of a tax on residential properties will depend on the design of the tax, which differs between countries. One advantage of taxing imputed rents in a comprehensive tax system is that it falls under the personal income tax, which in most cases is progressive. Thus, the tax burden associated with the residential property will in this case depend on the overall income. The basic case of a recurrent tax on residential property is a flat rate which is levied on the cadastral value.

It is also possible to make the tax progressive. A tax rate which increases with the value of the house is one possibility. **Progressivity could also be created through a basic allowance corresponding to the basic quality of an owner-occupied house.** It could also depend on certain family characteristics. Cyprus is an example of a country with a progressive rate structure, while the council tax in the UK actually is regressive. Particular circumstances, e.g. the number of children or retirement, affect the tax burden in Belgium. However, it is important to recognize that it is the overall progressivity of the tax system that matters, not the progressivity of individual taxes (OECD 2010).

Table 4.1:   **Household wealth (% of GDP)**

Country	2000	2005	2006	2007	2008	2009
France						
Net wealth	361	497	527	537	506	516
Net financial wealth	135	133	140	142	125	140
Non-financial assets	227	364	387	394	381	377
Germany						
Net wealth	364	404	414	416	410	---
Net financial wealth	103	125	129	131	123	140
Non-financial assets	261	279	284	284	287	---
Italy						
Net wealth	519	570	582	585	579	613
Net financial wealth	219	204	201	192	180	193
Non-financial assets	300	366	381	393	399	420
United Kingdom						
Net wealth	768	827	867	901	753	801
Net financial wealth	380	304	311	308	243	286
Non-financial assets	388	523	556	593	509	514

Source: OECD Economic Outlook No. 89.

Taxation of immovable property could also function as a tax on wealth. A tax on the net wealth position of households has recently been discussed in some Member States as a potential contribution to the fiscal consolidation from the wealthiest part of the society. Immovable property normally represents a large share of households' wealth, i.e. often between 2/3 and ¾ of the wealth position (Table 4.1). Moreover, wealthy people tend to own property of high value, and a tax on immovable properties valued at market prices would act as an indirect tax on wealth. A progressive rate of the property tax would further reinforce the redistributive nature of the tax.

> **Box 4.2:** *Policy criterion 5 (points to watch)* "Distributional impacts and concerns need to be acknowledged and addressed in the design of a residential property tax reform"
>
> Residential property taxes are unpopular and perceived as unfair. Distributional aspects need to be taken into account in the design of the reform in order to facilitate the implementation as well as to ensure the political sustainability of the tax reform.

One inherent problem with the recurrent property taxes is "asset rich-low income" households, and there are several ways to address this. The problem becomes particularly acute in times of rising property prices. House owners in attractive locations see their properties and tax liability gaining in value, without a corresponding rise in income or living conditions. There is also a life-cycle dimension at play, as house-owners often tend to stay in their properties as they grow older. As pensioners, it can become difficult to afford higher taxes due to rising property values. There are several possible policy measures that can be applied to address this issue. First, if the amount of the property tax payable exceeds a certain percentage of the income, the tax liability above the threshold can be waived or reduced. This measure can depend on an income requirement only or be combined with certain age or family requirements. Alternatively, the government can provide a possibility to defer the tax payment until the house is sold. The deferred taxes might increase with a certain interest rate, and it might be capped in relation to the value of the house (after deducting mortgage loans on the house). Eligibility to such a scheme might also be limited and made dependent on income, age or financial situation (OECD 2010).

4.3. LOCAL TAXES ON IMMOVABLE PROPERTY AND FISCAL FEDERALISM

In virtually all EU countries, recurrent taxes on immovable property are levied at the municipal level, thus implying the need to review intergovernmental revenue sharing mechanisms in case of any reform. Taxes on land and property have strong historical ties to local taxation. This is, in part, due to the widespread view that such taxes are partly 'benefit taxes', a charge for the goods and services provided locally. It also reflects the immobility of property, being clearly associated with the location. In some countries, e.g. the UK, recurrent taxes on domestic property are the main tax base for local government, even though the majority of local government income comes directly from central government.

Given local governments' partial control of property taxation, implementing a co-ordinated increase in property taxes may be difficult in practice. On the other hand, increasing local governments' own resources through higher property taxation would reduce the need for intergovernmental transfers and provide municipalities with a rather stable source of revenue. In any case, reforms to immovable property taxation would need to be accompanied by adjustments to grants that maintain the existing distribution of spending power across local governments. The local set-up of the tax reflects the fact that governments generally prefer to use the property tax to pay for "property-related" services rather than "people-related" services; turning the property tax into "general revenue" may therefore be difficult and undesirable.

> **Box 4.3:** *Policy criterion 6 (point to watch)* "Residential property tax reforms should take account of the local dimension of the tax"
>
> As tax revenues often accrue to the local level government, national tax reforms need to be complemented by a review or adjustments of the intergovernmental revenue sharing mechanisms.

5. CURRENT STATE OF PLAY IN THE EU

The reliance on a recurrent tax on immovable property varies considerably between Member States. Revenue from recurrent housing taxes ranges from close to 3.5% of GDP in the UK to less than 0.2% in Greece in 2010 (Graph 3.1). The low shares can in a few cases partly be explained by taxation of imputed rents for which the proceeds will fall under the personal income tax (i.e. Luxembourg and the Netherlands).

There is considerable scope to use a recurrent tax on property more extensively in a majority of Member States. At present, recurrent annual taxes on immovable property accounts for a major share of property tax revenues in many Member States, but the share of overall tax revenue is low. It should be possible to increase the use of recurrent property taxation and thereby approach the share to GDP recorded in the UK or France.

While transaction taxes generally play a smaller role, their revenue share is rather high in a few Member States. They were close to or higher than 1% of GDP in Belgium, Spain, France, Italy, Luxembourg and Malta in 2010. However, these data also include revenue from other capital and financial transactions. The tax rates applied also provide an indication of the importance and the distortive impact of the tax. Belgium, Italy and Greece apply a tax on real estate transactions at a rate above or equal to 10%, even if various reductions and exemption apply in some cases, e.g. for first-time buyers. A second set of countries (Portugal, Spain, Luxembourg, France, Cyprus and the UK) apply rates in the 6-8% range. Several of these countries apply progressive rate or a multiple rate structure. Nearly half of the Member States applies tax rates below or at 5% on real estate transactions. Austria, Czech Republic, Denmark, Finland, Germany ([10]), Hungary, Ireland, Latvia, Malta, the Netherlands, Slovenia, and Sweden belong to this group. Ireland reduced its stamp duty to 1-2% (from 7-9%) in 2011, while the Netherlands first temporarily and then permanently reduced its tax rate from 6% to 2% as from July 2011. Moreover, Cyprus has suspended the application of the tax on real estate transactions until the end of 2012. Five new Member States (Estonia, Slovakia, Bulgaria, Lithuania, and Poland) do not appear to tax real property transfers (see Annex 1 for details). The findings that transaction taxes impede the functioning of the property market and hamper the allocation of resources in the economy, while at the same time reducing labour mobility shows that there is room for reforms. Thus, it is important to remove or reduce the transaction taxes to a level which can be regarded as relatively insignificant. A level below 5% could possibly be seen as an acceptable level of the tax.

In many EU Member States, tax deductibility of mortgage interest payments leads to a debt bias, which in combination with too low taxation of the return of the property encourages over-investment in the housing sector in relation to other sectors. Currently, 14 Member States subsidise interest payments for owner-occupied housing either via a deductibility of interest payments or via direct subsidies. The provisions vary considerably between the Member States. Only two of these Member States (Luxembourg and the Netherlands) explicitly tax imputed rental income, but considerably below a level corresponding to the current market return on the house. Spain, Italy and Belgium also taxes imputed rents but have an exemption for the main residence.

In view of reducing the debt-bias of the tax system, some Member States have recently changed their rules to limit the scope of mortgage interest tax deductibility, and the issue is under discussion in a few other countries. Ireland is about to phase-out interest deductibility by 2017, while Estonia has decided to simultaneously reduce the personal income tax (as of 2015) and the ceiling for the tax deductibility (in 2012). The MoU for Portugal foresees that the interest deductibility for new mortgages will be eliminated in 2012 and the mortgage interest deductibility for owner-occupied housing in general will be phased out. Finland has decided to gradually reduce the deductibility during the next 3 years. In 2012, 85% of the interest expenses are deductible against earned income, in 2013 80% and in 2014 75%. France replaced the tax credits for mortgage interest rates in 2010 with more targeted subsidised loan

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([10]) In Germany rates are set at the state level and currently range from 3.5% to 5.5%.

schemes. Following several recent reforms, Spain decided in July 2012 to eliminate the income tax deduction for mortgage interest payments on house purchases from 1 January 2013. The Netherlands have increased the imputed rent from 1.05% to 1.30% for the part of the value that exceeds EUR 1,040,000 in 2012. However, the imputed rate remains considerably below the 4%-rate that applies for other assets. Italy has also increase the taxation of properties by abolishing the exemption for the main residence and increasing cadastral values by 60%, although some reductions are granted depending on household composition. Greece has also increased property taxation through several policy measures, including the introduction of a new tax in September 2011 mainly based on the surface area of buildings and collected through the payment of electricity bills. Finally, both Lithuania and Latvia have taken steps to broaden the base for the tax on immovable property.

Despite these recent or foreseen measures to reduce the tax subsidy for homeownership and house investments, the general picture that many Member States' tax systems tend to favour mortgage debt financing of homeownership remains valid. About half of the Member States (Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, Greece, Italy, Luxemburg, the Netherlands, Portugal, Spain and Sweden) have a debt-biased tax system favouring housing investments. The degree of bias varies between the countries, with, as mentioned above (Graph 2.1), the systems in Netherlands, the Czech Republic, the Nordic countries and Greece having the largest tax relief on debt financing costs for home owners (Andrews et. al, 2011). Taxes on imputed rents are seldom applied in these countries, and if so, either the rate or the tax base is too low. Recurrent property taxes could act as a second-best solution, but also in this case the tax rates are often too low or the tax base is not regularly updated to reflect the true market value. The end result is tax systems that favour investments in housing over other assets by providing households with tax incentives to take on debt.

Member States' experiences point at political difficulties to tax residential property at a level that ensures tax neutrality in a context of mortgage interest deductibility. Liquidity constraints of low-income earners and the nature of the asset, i.e. an illiquid asset providing a necessity service, make it politically difficult to tax homeownership as other financial assets. Sweden and Denmark are two recent examples where it has been difficult to sustain taxation on residential property as house prices rise. In the beginning of 1990's both countries had relatively balanced housing taxation systems. Both countries offer mortgage interest deductibility, which was balanced by a tax on imputed rents in Denmark and by a recurrent annual property tax in Sweden (equivalent to a tax on an imputed rent in a dual income tax system). Both countries had systems in place to regularly update the cadastral value, so that the tax burden would reflect a market rent or return. Over time, rising house prices resulted in political pressure to reduce or stabilise the tax burden, which was increasing with rising property values. Denmark froze the tax burden on residential properties in 2002. The property value is now taxed at 1% up to DKK 3,040,000 and at 3% exceeding this threshold. The base is the lowest of (i) the property value in 2001 plus 5%, (ii) the property value in 2002, or (iii) the property value according to the current assessment. The revenue accruing from the local land tax was also capped, but municipalities have been allowed to adjust rates without changing the overall tax burden. In Sweden, the tax base, i.e. the cadastral value, was frozen in 1997. It was updated again in 2001, but the increased tax base was compensated by a reduction of the tax rate. Finally, in 2008 the new government turned the recurrent tax into a lump-sum tax on each house or apartment, thereby abandoning the use of the property value as a tax base ([11]). Despite reducing the taxes levied on the return on the house investment, the rules for mortgage interest deductibility have not been revised. As a result, the tax subsidy to housing investment has increased as a result of political decisions taken in the context of rising house prices.

A system without deductibility of mortgage interest rates would be more fiscally stable, and would not be debt biased. A solution is therefore to gradually phase out mortgage interest deductibility over an extended period of time for all loan contracts. This has been done for example in the United Kingdom, where mortgage interest deductibility was phased out over a 10 year period. The timing of

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([11]) It is used for properties with a tax burden below 0.75% of the cadastral value, i.e. at the lower end of the housing supply.

such reforms is obviously difficult, as households will respond by reducing their debt which has a negative impact on consumption. It will, however, also be politically difficult to remove these subsidies in times with rising house prices and increasing housing costs for tax payers. A plausible solution would be to work with long transition periods, which allow households and house prices to adjust slowly to the new rules. An alternative, which has already been implemented in a few countries, is to apply different tax rules for new and old mortgage contracts. The drawback with this solution is that it creates lock-in effects for households with old contracts. There is also risk that the removed tax subsidy is immediately capitalised into lower house prices.

REFERENCES

Agell, J. Englund, P. and J. Södersten (1995), Svensk skattepolitik i teori och praktik, Statens offentliga utredningar 1995:104, Stockholm, Sweden.

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, OECD Publishing.

Andrews, D., Caldera Sánchez, A. and Å. Johansson (2011), Housing Markets and Structural Policies in OECD Countries, *OECD Economics Department Working Papers*, No. 836, OECD Publishing.

Andrews, D. and A. Caldera Sánchez (2011), Drivers of Homeownership rates in Selected OECD Countries, *OECD Economics Department Working Papers*, No. 849, OECD Publishing.

Arnold, J. (2008), Do tax structure affect aggregate economic growth? Empirical evidence from a panel of OECD countries, *OECD Economic Department Working Papers*, No 643.

Arnold, J, Brys, B., Heady, C., Johansson, Å., Schwellnus, C. and L. Vartia (2011), Tax Policy for Economic Recovery and Growth, *Economic Journal*, Vol 121.

Bleaney, M., N. Gemmell and R. Kneller (2000), 'Testing the endogenous growth model: Public expenditure, taxation and growth over the longrun', *University of Nottingham Discussion Paper in Economics,* 00/25.

Boije, R. and Lind, H. (2002), Hur bör egna hem beskattas?, *Ekonomisk Debatt*, vol 30, no 3.

Capozza, D. R., Green, R. K. and P. H. Hendershott (1996), Taxes, Mortgage Borrowing, and Residential Land Prices, In Economic Effects of Fundamental Tax Reform, ed. Aaron, H. and W. Gale, Brookings Institution, pp. 171-198.

Crowe, C., Dell'Ariccia, G., Igan, D. and P. Rabanal (2011), How to Deal with Real Estate Booms: Lessons from Country Experiences, *IMF Working Papers* 11/91.

European Commission (2006), 'Macroeconomic effects of a shift from direct to indirect taxation: A simulation for 15 EU Member States', note presented by the European Commission services (DG TAXUD) at the 72nd meeting of the OECD Working Party No.2 on Tax Policy Analysis and Tax Statistics, Paris, 14-16 November 2006. http://www.oecd.org/dataoecd/43/56/39494151.pdf.

European Commission (2007), Public Finances in EMU – 2007, *European Economy*, 3/2007.

European Commission (2008), Public Finances in EMU – 2008, *European Economy*, 4/2008.

European Commission (2010), Public Finances in the EMU 2010, *European Economy*, 4/2010 (Brussels: European Commission).

European Commission (2011a), Tax Reforms in EU Member States 2011, Tax Policy Challenges for Economic Growth and Fiscal Sustainability, *European Economy*, 5/2011.

European Commission (2011b), Memorandum of Understanding between Portugal and the EC, the ECB and the IMF on Specific Economic Policy Conditionality.

European Commission (2011c), VAT Rates Applied in the Member States of the European Union, 1st January 2011. (TAXUD.C1 (2011) 39295).

Gracia-Escribano, M. and G. Mehrez (2004), 'The impact of government size and the composition of revenue and expenditure on growth', in: IMF *Country Report Austria* No.04/237 (Washington, D.C.: International Monetary Fund).

Gray, C., T. Lane and A. Varoudakis, eds. (2007), *Fiscal policy and economic growth. Lessons for Eastern Europe and Central Asia* (Washington, D.C.: The World Bank).

Hamilton, B.W. (1976) Capitalization of Intrajurisdictional Differences in Local Tax Prices, *American Economic Review*, 66:5, pp. 743-753.

Harris, B. (2010), The Effect of Proposed Tax Reforms on Metropolitan Housing Prices, Tax Policy Center, Urban Institute and Brookings Institution.

Heady, C., Johansson, A. Arnold, J., Brys, B. and L. Vartia (2009), Tax Policy for Economic Recovery and Growth, University of Kent, *School of Economics Discussion Papers* 0925.

Hemmelgarn, T. Nicodeme, G. and E. Zangari (2011), The Role of Housing Tax Provisions in the 2008 Financial Crisis. Taxation Papers, Working Paper No 27.

Institute for Fiscal Studies (IFS) (2011), A retrospective evaluation of elements of the EU VAT system, final report, Study for TAXUD (TAXUD/2010/DE/328), December 2011.

Johansson, Å., Heady, C., Arnold. J., Brys, B. and L. Vartia (2008), Tax and Economic Growth, *OECD Economics Department Working Papers*, No. 620, OECD Publishing.

Johansson, Å. (2011), Housing Policies in the OECD and Candidate for Accession Countries: Survey-based Data and Implications, *OECD Economics Department Working Papers*, forthcoming.

Keen, M., Klemm, A. and V. Perry (2010), Tax and the Crisis, *Fiscal Studies*, Vol. 31,no.1, pp.43-79.

Lendvai, J. (2011), Does property tax increase lead to fast reduction in the debt-to-GDP ratio?, mimeo.

Lind. H. (2000), Fastighetsbeskattning om vi betraktar egnahem som varaktiga konsumtionsvaror, Bilaga 4, *SOU 2000:34 (Likformig och neutral fastighetsbeskattning).*

Lyons, M. (2007), Place shaping: a shared ambition for the future of local government, Lyons inquiry into local government, The Stationary Office, London.

Mirrlees, J., Adam, S., Besley, T., Blundell, R., Bond, S., Chote, R., Gammie, M., Johnson, P., Myles, G. and J. Poterba (2011), Tax by Design: The Mirrlees Review, Chapter 16: The Taxation of Land and Property, Oxford: Oxford University Press for Institute for Fiscal Studies.

OECD (2010), Tax Policy Reform and Economic Growth, OECD Tax Policy Studies, No 20. OECD, Paris.

OECD (2011a), Economic Policy Reforms 2011: Going for Growth, OECD, Paris.

OECD (2011b), Revenue Statistics 1995-2009, OECD, Paris.

OECD (2011c), The taxation of residential property: Background note for the November Roundtable at Working Party No.2, Working Party No.2 on tax policy analysis and tax statistics, 3 November.

Poterba, J. (1984), Tax Subsidies to Owner-occupied Housing: An Asset-market Approach, *The Quarterly Journal of Economics*, Vol. 99, No. 4. pp. 729-752.

Roeger, W. and J. in 't Veld (2010), Fiscal stimulus and exit strategies in the EU: a model-based analysis, mimeo.

SOU 2000:34 (2000), Likformig och neutral fastighetsbeskattning, Property Taxation Committee report, Social Affairs Ministry, Stockholm.

SOU 2004:36 (2004), Reformerade egendomsskatter, Report from the Egendomsskatte-kommitten, Finance Ministry, Stockholm.

Sörensen, Peter Birch (2010), *Swedish Tax Policy: Recent Trends and Future Challenges*, Report to the Expert Group on Public Economics, 2010:4, Ministry of Finance, Stockholm.

Tiebout, Charles (1956) "A Pure Theory of Local Expenditures", *Journal of Political Economy*, 64:5 pp. 416-424.

Van den Noord, P. (2005), Tax Incentives and House Price Volatility in the Euro Area: Theory and Evidence, *Économie internationale* 101, pp. 29-45.

Zodrow G.R. (2007), The Property Tax as a Capital Tax: A Room with Three Views, mimeo, The James Baker III Institute for Public Policy, Rice University, January.

Annex: Tax treatment of owner-occupied housing

	Recurrent tax on land and buildings	Mortgage interest deductibility	Tax on imputed rents	Registration tax
Belgium	Yes. A percentage on the cadastral value, misleadingly called "withholding tax". A regional rate (1.25% Bxl, Wa: 2,5% Fl) and a municipality rate. The assessed value of the property is based on 1975 values, which has been indexed to the development of the CPI since 1991. Thus, the assessed value is on average below half of the market value.	Yes. All of the payment (interest, insurance, and capital repayment) can be deducted up to a ceiling of EUR 2,770 for the first 10 years, and EUR 2,080 thereafter. According to the political agreement on the reform of the federal system in December 2011, interest mortgage deductibility will be phased out at the federal level and this competence will be transferred to regions as of 2014 (regions have not yet indicated their intentions with respect to deductibility).	Not on main dwelling, but the imputed rental income from other properties (than the main residence) is subject to the income tax. The assessed value of the property is based on 1975 values, which has been indexed to the development of the CPI since 1991.	Sale of real estate, registration tax 12.5% (10% in Flanders). Mortgage fee, court fees.
Germany	Yes. Real estate tax on fiscal value at a federal rate of 0.35%, multiplied with a municipal coefficient of 100-900%. Cadastral value from 1964.	No	No	3.5% of sales price. Ländern decide rates since 1/1 2007, thus rates have increased since then.
Estonia	Yes. Land tax levied on market value of land at a rate between 0.1% and 2.5%. Cadastral value from 2001.	Yes	No	No
Ireland	Yes. A local charge of EUR 200 per dwelling payable by owners of rented accommodation, holiday homes and other non-principal residences. (Regular update of cadastral values for non-residential housing)	Yes. To be phased out by 2017. 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 3000 for singles and EUR 6000 for married/widowed taxpayers.	No	1% up to 1000000 and 2% above as of 2011. Previously 7% for EUR 127000 -875000, and above EUR 875000 9%.
Greece	Yes. A progressive state real estate duty (0.1%-2% of assessed value) and local real estate duty (0.025-0.035% of assessed value). Since 2011: additional property tax of EUR 0.5-20 per m^2 depending on location and age of building, and owner situation, collected through electricity bill.	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). The tax credit was reduced to 10% in October 2011.	No	12-14% of sales price. Exempt for first purchase if smaller than $200m^2 + 25m^2$ per kid, and holds it for 5 yrs. 7% up to EUR 15000, 9% above; +2% if fire station in area, +3% to municipality.
Spain	Yes. Tax levied by municipalities on cadastral value at rates of 0.4% for urban and 0.3% for rural properties (with local differences). The cadastral value appears to have been partly updated in January 1994.	Yes, 15% of quantities paid for the house (repair, mortgage etc) to a max EUR 9040, thus the maximum credit is EUR1356 (for a period, the credit was removed for incomes above EUR 24170). Spain decided to abolish the mortgage interest deductibility for new mortgages taken for house purchases from 1 January 2013.	Not on principal dwelling, but on other than the habitual residence. (Different rates for properties with updated values since 1994, 1.1%, and non-updated 2%.)	6 or 7% on immovable property transfers (depending on region).

(Continued on the next page)

Box (continued)

France	Two types of local taxes: property tax and a residence tax. Cadastral value from 1970, no updating.	No (2007-2010 Tax credit for interest on loan for principal residence for 5 years. The credit is equal to 20% up to EUR 3750 per year, increased by EUR 500 per year for each dependent person. The limits are doubled for couples.) In 2010, subsidised loan schemes were introduced targeted at first-time buyers, low-earners, housing-shortage areas, and purchases of new dwellings.	No	7.5% divided into 4 items.
Italy	Yes. As of 2012 a recurrent tax of 0.4% applies for owner-occupied first dwellings, 0.76% for other dwellings. A basic and child allowances are granted ranging in total from EUR 200 to 600. Tax rates can be changed by the Municipal Council if consistent with budgetary targets. The cadastral values refer to 1988, and an average coefficient of 3.7 is applied. This correction factor was increased by 60% in 2012.	Yes. Interest on mortgage loans for building or buying the principal residence is subject to a tax credit equal to 19% up to a maximum interest payment of EUR 4000 (i.e. a maximum tax credit of EUR 760).	No (not on owner-occupied dwellings)	0.5-15% of market value depending on the deed, 3% of value for the first purchase.
Cyprus	Yes. Tax on estimated market value in 1980, with rates from 0% to 0.8%.	No	No	3% up to EUR 85430, 5% to EUR 170860, and 8% above, registration of mortgage 1%, transfer of mortgage 0.5% or 1%. Reduced rates for transfers within extended family. Cyprus has suspended the application of this tax until the end of 2012.
Luxemburg	Yes. Local real estate tax on unit value, rates from 0.7 to 1%, multiplied by municipal coefficients from 120 to 900. The cadastral value originates from January 1, 1941.	Yes, with a ceiling of the tax deduction at EUR 1500 per person in the household. Reduced to EUR 750 after 12 year of occupancy. No tax deductible on secondary homes.	Yes, at marginal tax rate but valued below market value.	6% of real properties (sales value).
Malta	No	No	No	Transfer tax, 5% of sales price, for primary residence reduced to 3.5% up to EUR 35000.
Netherlands	Yes, local tax, rates differ between municipalities. The cadastral (WOZ) value is updated annually by municipalities in line with market developments.	Yes, fully.	Yes. Imputed rent below 1% of the property value (i.e. 0.55% of a EUR 1 million villa, higher for more expensive properties). The top rate was increased from 1.05% to 1.30% in 2012.	First temporarily then permanently reduced to 2% as of July 2011. Previously 6% of market value (with insurance 7.5%).
Austria	Yes, tax levied at a basic federal rate (usually 0.2%) multiplied by a municipal coefficient ranging up to 500%. Cadastral value from 1973 with no automatic update.	No	No	3.5% of sales price.

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Box (continued)

Portugal	Tax levied by municipalities, but permanent residences are exempt. Increased both the minimum and maximum rates by 0.1 p.p. in 2012. Cadastral values adjusted every 3rd year, based on various criteria to approx. 80-90% of the market value. However, some cadastral values have not been updated since 2003.	Yes, tax credit of 30% of interest and principal repayments on loans for permanent residence. The Memorandum of Understanding foresees that the mortgage interest deductibility for new mortgages will be eliminated in 2012 and the mortgage interest deductibility for owner-occupied housing in general will be phased out.	No	Based on sales price (or if higher the value defined for property taxation) Progressive marginal rate reaching 8% at EUR 281.030, lower for permanent residence.
Slovakia	Yes, land tax levied at 0.25 of tax base, which is a fixed value per m^2 last adjusted in 2004. Tax on buildings and apartments is EUR 0.033 per m^2.	No. Subsidised interest rates	No	No
Slovenia	Yes, land and building duty is levied by municipalities on owners and users of land and buildings. For owner occupiers, first 160 m^2 is exempt .Tax rates range from 0.1-1.5% of the value of the property.	No	No	2% of the sales price
Finland	Yes. 0.22-0.5% of the taxable value of the property depending on the municipality (sole recipient of the tax). Cadastral value updated in 2009.	Yes. Deductible from capital income. Beyond that, 28% of the deficit due to interest on owner occupied dwellings up to EUR 1400 can be credited against taxes paid on earned income. The share of deductible interest payments is reduced to 85% in 2012 (80% in 2013, 75% in 2014).	No	4% of the real property value, fist property exempt if 18-39 years.
Bulgaria	0.01% to 0.45% depending on municipality of the assessed value of the property (50% discount for owner-occupied dwellings). The assessed value is calculated based on table values, which are updated yearly.	Yes, but limited to the interest payments on the first BGN 100000 of a mortgage loan. Only applicable for young married families below 35 years of age owning one family dwelling.	No	No
Czech Republic	Yes, real estate and land tax (CZK 2 per m^2). Real estate tax of CZK 2 per m^2, multiplied with a coefficient of 2 - 5 depending on municipality.	Yes, interests relating to the main residence are deductible up to a limit of CZK 300000. A reduction to CZK 80000 will enter into force in 2014.	No	3% on the highest of the transfer price and the officially assessed value.
Denmark	Yes. Municipal tax of 1,6-3,4% of the value of land. National tax at 1% of taxable value up to DKK 3040000 and 3% above threshold. The tax base was frozen in 2002, while the cadastral value is updated every second year.	Yes. The tax deduction on interest has a taxable value corresponding to approx. 33%, which is to be phased down to 25% by 2019.	No	Stamp duty DKK 1400 and 0.6% of the sales price. Duty on mortgage DKK 1500 and 1.5% of the mortgage loan.
Latvia	Local property tax of 0.2% for a cadastral value below LVL 40000, 0.4% LVL 40000-75000; 0.6% above LVL 75000. Real estate tax of 1.5% of the cadastral value, but payment limited in 2010 and 2011 to 125% of previous year's tax.	No	No	Registration tax of 2% on the real estate value, capped at LVL 30000.

Box (continued)				
Lithuania	A land tax of 1.5% of a value established by the government. Property tax on buildings, 0.3-1% determined by the municipality. Broadened the base in 2012 and introduced an additional tax of 1 p.p. on properties with a value above LTL 1 mn.	No (deduction provided for interest on a loan taken before January 1 2009, limited to one dwelling).	No	No
Hungary	Yes, local building tax of HUF 1241 per m^2 or 3% of fair market value. Local land tax of HUF 275 per m^2 or 3% fair market value.	No	No	Property transfer tax; 2% of market value up HUF 4 million, 4% for the value above.
Poland	Yes, rates range from PLN 0.41 to 4.15 per m^2 for different types of land. PLN 0.67 (residential building) to 21.05 per m^2 for various types of buildings.	No (loan taken 1 January 2002 through 31 December qualify for deductibility based on older provisions up to 2027)	No	No
Romania	A lump sum tax per m^2 for land (rate unknown). Real estate tax of 0,1% for the taxable value (determined according to certain criteria, e.g. floor area, location, nature of building, age).	No	No	Stamp duty at a regressive rate
Sweden	Yes. Municipal tax of SEK 6512 or 0.75% of cadastral value for single family house. New buildings exempt from the fee for the first 5 years. Cadastral value fully updated every 6th year, with a minor revision in between.	Yes. Deductible against capital income, in case of deficit then 30% tax reduction against labour income.	No	Stamp duty on acquisition of immovable property 1.5%, 2% on mortgage for immovable property
UK	Yes, owners and renters pay Local Council tax based on assessed or imputed value of the property in April 1991. No plan to update cadastral value. Second homes are exempted.	No	No	Stamp duty on land. 1% for GBP 125000-250000; 3% for GBP 250000-500000; 4% above GBP 500000; 7% above GBP 2000000. Stamp duty of 1% also on rent leases worth more than GBP 125000.

Source: Commission services.

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