JRF programme paper:
Housing Market Taskforce

JRF HOUSING MARKET TASKFORCE

Housing taxation and subsidies: international comparisons and the options for reform

Michael Oxley and Marietta Haffner

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This paper:
- examines the housing taxation and subsidy systems in Denmark, Germany, the Netherlands and the USA;
- makes some comparisons with the UK; and
- explores connections between these systems and housing market volatility, distribution and choice of tenure and investment

The Joseph Rowntree Foundation (JRF) commissioned this paper to contribute ideas for its Housing Market Taskforce, a two-year programme of work aiming to achieve long-term stability in the housing market for vulnerable households.

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This paper was commissioned to inform the work of the JRF Housing Market Taskforce, a two-year programme of work aiming to achieve long-term stability in the housing market for vulnerable households.

The Joseph Rowntree Foundation has supported this project as part of its programme of research and innovative development projects, which it hopes will be of value to policy-makers, practitioners and service users. The facts presented and views expressed in this report are, however, those of the authors and not necessarily those of JRF or the Housing Market Taskforce.

Joseph Rowntree Foundation
The Homestead
40 Water End
York YO30 6WP
www.jrf.org.uk

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Contact:
Kathleen Kelly
kathleen.kelly@jrf.org.uk

Contents

Executive summary

- This report examines the housing taxation and subsidy systems in Denmark, Germany, the Netherlands and the USA and makes some comparisons with the UK. The connections between these systems and housing market volatility, distributional outcomes and the principles of neutrality in tenure choice and investment decisions are explored.

- Housing market volatility, measured by house price changes, is clearly higher in the UK than in Germany and the USA and it is also on some measures higher than in Denmark and the Netherlands.

- Germany and the USA both have some form of taxation on capital gains for owner-occupiers. In Germany it applies only to sales in the first ten years of occupation. Both countries also have real estate taxes that may perform a price-dampening function.

- In Denmark there are real estate taxes (land plus house) for owner-occupiers and land taxes for all property owners that are in principle related to market values (although there have in recent years been limits on the increases in these taxes).

- The Netherlands and the USA also have real estate taxes related to property values. In the Netherlands, however, while valuations are updated frequently, amounts paid reflect local requirements. In the USA assessment values do not necessarily reflect current market values.

- In Germany taxes and subsidies have for many years been used to provide incentives for rental supply. This has included significant volumes of supply from private landlords which is available for social purposes as a result of subsidies. The land taxation instrument in Denmark and the supply incentives in Germany are worthy of further investigation and possibly emulation. The use of capital gains taxation in Germany on short-term gains is also worth considering.

- Four objectives for housing taxation and subsidy systems include (i) less volatile house prices; (ii) less distortion of choices between owning and renting; (iii) additional support for low income and vulnerable households; and (iv) additional housing investment incentives.

- Taking all the evidence into account, the options for the UK most worthy of further consideration to achieve the four objectives set out above are (i) Stamp Duty Land Tax changes that relate payments more closely to property values without banding distortions and with progression through a wide range of values; (ii) abolition of Stamp Duty Land Tax; (iii) new real estate (housing plus land) and/or land taxation, levied periodically, related to current market values and, most probably, linked to changes in Council Tax and/or changes in Stamp Duty Land Tax; (iv) a universal housing allowance or tax credit system that equalised support for households in similar personal circumstances, regardless of tenure choice, and gives the greatest help to those in the greatest need (linked to housing benefit reform); (v) additional supply incentives through tax/subsidy enhanced contracts with landlords, including depreciation allowances; and (vi) additional tax/subsidy incentives for more housing investment (through additional building, conversions and more effective use of the existing stock).

- Taxes that reduce volatility arguably include taxes on transactions and asset values, which reflect current values and vary positively with values and value changes. Taxes and subsidies that support more housing supply may also reduce volatility.

- Any changes to property taxation should be designed to make it more anti-cyclical rather than necessarily increase in the overall take from property taxation.

- A tax and subsidy system designed with housing supply incentives in mind could arguably have radical stabilisation and distributional outcomes, particularly if the instruments were targeted on supply intended for lower income households.

Acronyms and abbreviations

DKK	Denmark	Danish Krone
DNB	Netherlands	Dutch Central Bank
ECB		European Central Bank
EU		European Union
GDP		Gross Domestic Product
GNP		Gross National Product
LIHTC	USA	Low Income Housing Tax Credit
OECD		Organisation for Economic Co-operation and Development
RICS	UK	Royal Institution of Chartered Surveyors
RSL	UK	Registered Social Landlord
SDLT	UK	Stamp Duty Land Tax
UK	UK	United Kingdom
USA	USA	United States of America
VAT		Value Added Tax

Introduction

Overview

This report examines the housing taxation and subsidy systems in Denmark, Germany, the Netherlands and the USA and makes some comparisons with the UK. The connections between these systems and housing market volatility, distributional outcomes and the principles of neutrality in tenure choice and investment decisions are explored. A rapid review of evidence on these systems and volatility has been undertaken for each country. Some tentative suggestions are made regarding possible reforms to taxes and subsidies in the UK in order to achieve volatility reduction, distributional changes and a more neutral system with respect to tenure choice and investment decisions. Throughout the report it is national house price volatility rather than housing supply volatility that is the focus of the investigation of housing market volatility.

Report structure and project scope

In section two the influences in principle of housing taxes and subsidies on market volatility, distribution and aspects of neutrality are explored. In section three there is a brief overview on the main instruments that affect home-owners, social landlords, private landlords and tenants in each of the five countries. A summary of the long-term housing market volatility evidence for the countries is set out in section four. In section five there is a country by country summary of taxes, subsidies, volatility, distribution and neutrality. In section six some reform options for the UK are presented in the light of the evidence from the other countries.

In Table 1 the tenure distribution for the five countries is set out. The variation in the relative importance of the tenures between the countries, coupled with variations in volatility and the mix of policy instruments, makes for a useful combination of circumstances and a varied evidence base. It is the combination of these factors that make the choice of countries appropriate for this investigation.

Ideally any housing taxation/subsidy reforms need to be considered in relation to other systems including:

- the housing finance system
- the local authority finance/taxation system
- the land use planning system
- the residential development system (type of/structure of house building industry).

The scope of this work has not permitted an examination of these contexts. The variations in these systems, and more broadly the national contexts, mean that, as in any internationally comparative study, caution must be exercised in interpreting differences between countries. This caution must be extended to the transferability of any policy implications that arise from comparative research. However, the information assembled here, does, with careful application, provide a significant advance in the evidence base that can inform ideas for policy reform.

On specific taxes and subsidies the most up-to-date information available has been used. However, there have been changes over time in all the countries in the rates of taxes and subsidies as well as the precise measures in use. The information on market volatility relates to several decades and ideally changes in instruments over time would have been related to changes in outcomes. The scope of the project has not permitted such considerations.

The report has, furthermore, been prepared in a very short time period and this has resulted in some information being less certain than the authors would have liked.

The options set out in section six could usefully be examined in much more depth with the aid of more information than it has been possible to assemble from each of the countries.

Table 1 Tenure, five countries, various years

	UK(i) 2007	**Denmark(ii) 2004**	**Germany(iii) 2003**	**Netherlands (iii) 2006**	**USA(iv) 2002**
Market rented	12	17	54	11	30
Social rented	18	21	7*	33	3
Owner-occupation	69	52	39	56	68
Other	0	10	0	0	0

** Social letting: an estimated 15 per cent of dwellings are let with a social purpose (including dwellings of municipal housing companies and rented cooperatives). Approximately 5-7 per cent of all rented dwellings are (still) subsidised.*

Sources:
(i) http://www.communities.gov.uk/documents/housing/xls/table-101.xls
(ii) Whitehead, and Scanlon (2007).
(iii) Haffner, Hoekstra, Oxley and van der Heijden (2009).
(iv) Scanlon and Whitehead (2004).

Housing taxation and subsidies in principle

Volatility

We consider evidence about the measurement of housing market volatility in section four. Here we assume that the variation in house prices around a long-term trend is the key indicator. On this basis taxes and subsidies that promote house price booms and busts in the housing market encourage volatility.

It has been argued that some taxation measures have automatic stabilising principles and are thus inherently anti-cyclical:

> ‘Letting real estate taxes move in tandem with each house’s value creates an automatic stabiliser for house prices, because movements in housing demand are dampened by high taxes when house prices increase and lower taxes when demand and prices decline. As expectations of future house price increases would also be affected, the extent of speculative housing investments would also possibly be reduced.’ (Erlandsen, et al., 2006, p9)

Volatility has been blamed directly on tax breaks:

> ‘Price variability of owner-occupied houses is likely to be largest in countries where the tax breaks are largest. In cross-country analysis, almost half of the variation in house price volatility could be explained by the tax wedge on housing.’ (Erlandsen, et al., 2006, p11; see also van den Noord, 2005)

In comparisons between countries the Organisation for Economic Co-operation and Development (OECD) measures the size of this ‘tax wedge’ by the difference between the after-tax and pre-tax real interest rate on mortgage loans (Erlandsen, et al., 2006, p11). The pro-cyclical effect of housing tax breaks may, more broadly, be largely the outcome of demand side encouragement which may fuel speculation as prices rise.

If a significant part of the demand for housing is based on the prospects of capital gain, taxation that reduced this prospect is likely to reduce such speculative demand. Taking this approach, it has been argued that a lack of capital gains taxation on housing promotes house price fluctuations (for example OECD, 1999). However, Fuest, et al., (2004) suggest that this argument is highly misleading. They argue that capital gains taxation can increase house price fluctuations. Using a stylised model of the housing market they suggest that ‘households who buy their real estate in boom phases will typically benefit from the boom as far as their overall income is concerned but they also buy their real estate at high prices. As a result, they are likely to suffer a capital loss when selling their houses later. Households who buy their real estate in times of economic crisis, in contrast, have lower general income but are likely to make a capital gain on their real estate investment. Introducing a capital gains tax reduces the losses of the high income earners and reduces the capital gains of low income earners. As a consequence, high (low) income earners will be able to pay more (less), so that prices increase even further in booms and fall deeper in recessions’ (Fuest, et al., 2004, p22). It is acknowledged however that

‘Surprisingly, there is very little literature on the economic effects of capital gains taxation on housing’ (Fuest, et al., 2004, p2). There certainly is a lack of consensus as to the consequences on capital gains taxation and a lack of empirical evidence to support either side of the argument.

If volatility is mainly prompted by demand side pressures then the balance of demand and supply side support through tax and subsidy measures may have an impact. As stated by Meen (2006, p2) in the context of the UK, ‘Arguably, improving the responsiveness of housing supply to changes in housing market conditions is a pre-requisite to dampening price fluctuations’. Meen’s analysis suggests that there is a lack of evidence for speculative housing market bubbles in the UK. He argues that volatility since the late sixties can be explained largely by weak housing supply, which increases the responsiveness of house prices to changes in incomes and interest rates. This has been reinforced, it is suggested, by movements in incomes and interest rates and deregulation of mortgage markets in the eighties plus labour market changes, which had their main effect in the nineties. He emphasises the importance of housing supply for explanations of both volatility and the sustainability of home-ownership. While this improved supply responsiveness can be expected to come mainly from planning changes, taxes and subsidies may also have a part to play (Barker, 2004). The important question then becomes: which taxation and subsidy measures are likely to improve supply responsiveness? We return to this question in section six.

A European Central Bank Study (ECB, 2003) argues that national aggregations may cancel out important local and regional factors in explaining international variations in house price volatility and states specifically

> ‘Differences between house price volatility in Germany and in the United Kingdom may be partly due to factors such as the distribution of the population and of economic activity in the national territories. Little is known of how such regional questions affect national house price dynamics.’ (ECB, 2003, p20)

Distribution

Tax/subsidy instruments that are income regressive, other things being equal, redistribute in favour of higher income groups. Those that redistribute in favour of lower income groups are progressive. It has long been recognised that regressive distributional effects are a feature of mortgage interest tax relief. This is typically more generous with the size of mortgage. In practice caps on the size of mortgage eligible for relief, the rate at which relief is allowed (and arguably possibly the time period over which the relief is allowed) seek to dampen regressive distributional effects. Targeted tax reliefs and subsidies for low income home-owners should, in principle, have progressive distributional effects. Means-tested demand-side subsidies such as housing allowances should have disproportionately positive effects on lower income households and in principle have progressive distributional effects. A universal housing allowance that is available to all tenures has the potential to have such distributional effects across all households. Similarly, progressive effects can be expected from any tax that increases as a proportion of value with the capital value of a dwelling (but positive redistribution effects may be absent for households that are asset rich and income poor). Transaction taxes such as Stamp Duty Land Tax and Capital Gains Tax can in principle have such outcomes. Conversely relief from Capital Gains Tax can be argued to have regressive distributional effects. However, the detail of the measures, including any banding and exemptions that apply, can modify these distributional outcomes. The impact of transaction taxes might be ‘to reduce speculative behaviour’ and help prevent slowdowns or bubbles in house prices. However, it is also claimed that ‘transaction costs may have only a minor impact in preventing asset price bubbles’ (ECB, 2003, p40).

Rent controls may provide indirect subsidies that have progressive redistributional effects, at least in the short run:

> ‘Rent regulation can be seen as a way to obtain distributional objectives as it implies a transfer of resources from landlords to tenants. This may therefore be viewed in the short term as an alternative way of redistribution through taxation of rental income and subsidisation of rent-payers out of the proceeds.’ (Erlandsen, et al., 2006, p32)

However, in the long run a society may not want such inter-group redistribution rather than a broader societal redistribution, nor may it want to risk any possible adverse supply effects of rent controls.

When Capital Gains Tax is not due, the principle of horizontal equity is infringed; thus there are regressive distributional effects for higher income households, if these are the households which most likely earn capital gains instead of primarily income from work (OECD, 2006). Such a situation also conflicts with the principle of vertical equity as higher income households generally can convert income to capital gain more easily and have a larger ability to pay.

In making distributional judgements, emphasis might be placed on compensating for imbalances that favour certain groups and work against others. Thus, for example, distributional issues between those who own and those who do not own housing may be to the fore. More generally changes in policy instruments may be designed to help the lowest incomes groups and the most vulnerable in society.

However, examining one instrument at a time will give a false impression, as in practice it is a package of measures that should be evaluated. If regressive distributional effects are concentrated in one sector (say home-ownership) and progressive effects in another (say renting) the relative size of the two sectors will also have an impact on the overall redistributive effects.

Neutrality in decision-making

In economic theory housing is usually regarded as an investment good delivering housing services. According to this rationale housing requires an investment decision. Efficiency of decision-making requires that housing is treated neutrally by the tax system in order not to distort the decision-making of investors (ECB, 2003, p35). If decisions of investors are not distorted by taxation, then the relative price of goods and services will not be distorted (Barr, 1998).

It must be remembered that the combination of various tax advantages makes an assessment of the overall impact of the tax system on housing investment quite complex (OECD, 2007 from Wood, 1990). The complexity may increase when low-income households are not subject to income taxation and thus miss out on any concessions. The complexity may also increase when combining the details of the system with the level of the concessions. In order to simplify and structure the information, we focus on tenure neutrality, tax neutrality, and neutrality between investment in new and existing housing.

Tenure neutrality in the taxation of owner-occupation and private renting

Tenure neutrality is about 'no artificial distortions…of…relative costs' between tenures by government intervention (Barr,1998, p364). It implies that investors in housing are indifferent between renting a dwelling or owning a dwelling. And it implies that consumers are indifferent as well, as anything that influences the cost price of the housing service that the dwelling delivers at the level of the investor/owner will be in the cost price that the consumer has to pay for housing consumption.

In taxation the term tax expenditures is often used to denote subsidies via the tax system. Tax expenditures are generally defined as 'a departure from the generally accepted or benchmark tax structure which produces a favourable tax treatment of particular types of activities or taxpayers' (OECD, 1984, p7). In this view a tax deduction is only a tax subsidy if it is a departure from the tax system; e.g. if there is imputed rent taxation (and capital gains taxation) for home ownership in income tax, a cost deduction (mortgage interest, maintenance) would be allowed. In this case the mortgage interest deduction would be a deduction, but not a subsidy.

An analysis of whether there is neutrality in the tax treatment between renting and owning can thus be very complex, as the benchmark tax structure may depend on the type of landlord (for example, private person, private company, private rental co-operative, public company). Each landlord may be treated differently by, for example, the taxation of income (for example, income tax, corporate tax, exemption). To simplify matters, whether the investment decision is distorted for the investor will be analysed for owner-occupiers and private person landlords (individuals) in income tax. (If tenure neutrality is the aim, the treatment of the owner-occupied dwelling in income tax as consumption good – no taxation of imputed income and capital gains, no deduction of costs – will be irrelevant as rental dwellings will not be taxed like a consumption good but like an investment good [Haffner, 2002; Hills, 1991]). Tenure neutrality is interpreted as 'the same treatment' for private rental and owner-occupied dwellings. The relative cost price of housing will not be changed by the tax treatment.

It might be that decision-makers wish to concentrate on the efficiency rather than the volatility or distributional outcomes of housing markets. In this context the European Central Bank argues that a large rental sector promotes the efficiency of the overall housing market and an efficient rental sector promotes labour mobility and raises the liquidity of the housing market (ECB, 2003, pp5–6) and it is suggested that 'the bias of tax relief and subsidies in favour of owner-occupied housing should be re-considered' (ECB, 2003, p6).

Tax neutrality between owner-occupied housing and financial assets

Tax neutrality is about neutrality in the tax treatment of housing and other assets so that the relative price remains intact. Again to simplify, we compare owner-occupied housing with financial assets on the taxes that could make a difference: Income Tax, Capital Gains Tax and Wealth Tax. Inheritance Tax will not be covered. It is claimed that in the EU 'The tax/subsidy regimes have tended to favour immovable assets rather than financial assets' (ECB, 2003, p5).

Neutrality between investment in new and existing stock

Another distortion for investment decisions is the different tax treatment of investments in new and existing stock. Repair investments and the acquisition of an existing dwelling may be treated differently from investments in new buildings. These different types of treatment may distort investors' decisions. It is claimed that in some EU countries, tax/subsidy regimes 'favoured the purchase of new dwellings' (ECB, 2003, p5).

Volatility, distributional effects and neutral decision making

Less market volatility, fairer income distribution and efficient/neutral investment decisions may all be legitimate policy goals, but may require different instruments. As an example, market volatility may be influenced by periodic real estate taxes that are being paid by owners (and recouped via rents or imputed rents); a fairer income distribution may require lower real estate taxes for low-income households; neutral decision-making will require the same tax treatment of investors (in housing). In this case the first aim and the last aim coincide, but the second does not. In general, a distributional aim will be focused on the consumer, while volatility and neutral investments aims will be targeted on the investor.

Housing taxation and subsidy systems in the UK, Denmark, Germany, the Netherlands and the USA

Introduction

In this section there is a summary of the taxes and subsidies relevant to each tenure in the five countries. The summary tables used in this section are based on the more detailed tables set out in Appendix B. The references for each item of information are provided in Appendix B.

Taxes and subsidies for home-owners

Table 2 Taxes and subsidies for owner-occupiers (principal home)

	UK	Denmark	Germany	Netherlands	USA
Market share	69% (2007)	52% (2004)	39% (2003)	56% (2006)	69% (2005)
VAT new construction	No 0%-rate	No, exemption	No, exemption	Yes	No, not applicable; also no sales tax
VAT repairs/ renovation	Yes	Yes	Yes	Yes	Not applicable
Transaction tax for acquisition of existing dwelling (stamp duty)	Yes, exemptions and temporary deductions; also for newly-built	Yes	Yes also on newly-built	Yes	Yes, in some states; some exemptions
Imputed rent taxation	No	No	No	Yes, for as long as mortgage is being repaid	No
Mortgage interest deduction	No	Yes	No	Yes	Yes
Other cost deductions	No	No	No	Yes	Yes
Capital Gains Tax	No principal dwelling exempted	Yes exempted if occupied by owner and land area is limited to 1400 sq m	Yes if sold 10 years of acquisition	No	Yes if dwelling is not owner occupied for 3 of the last 5 years
Property, real estate or land tax	Yes, council tax	Yes, 1) local land tax 2) local real estate tax	Yes, municipal real estate tax called land tax	Yes, local real estate tax	Yes, local real estate tax
Housing allowances	No	No	Yes	Yes, only possible for mortgagors with mortgage guarantee	Yes, in some states
Non-fiscal subsidy (incl. one-off)	Yes	No	Yes	Yes	Yes

Source: Table B1, Appendix B

Each country has property taxes but Denmark is unique in having a tax that is levied specifically on residential land values. There are considerable variations between countries in the extent to which payments made keep up with market values. This is a consequence of the relationship between the valuation base and market values and the tax paid and the valuation base. In the UK Council Tax payments do not reflect current values on both counts. While Capital Gains Tax is not paid on principal residences in the UK it is paid in some circumstances in Denmark, Germany and the USA.

While in the UK housing allowances are not available to owner-occupiers (although some vulnerable households may receive help with mortgage payments) allowances do extend to home-owners in Germany, and in limited circumstances in the Netherlands (special subsidy originally based on housing allowance requirements) and the USA.

The tax subsidy system is not tenure neutral in any of the countries but there are significant variations in the ways that owner-occupied housing is treated either as a consumption or an investment good, in that mortgage interest deductions are allowed for the purposes of Income Tax (available in Denmark, the Netherlands and the USA), the use of imputed rental income tax (the Netherlands) and Capital Gains Tax (possible in Denmark, Germany and the USA).

Taxes and subsidies for social rental landlords

Table 3 Taxes and subsidies for social rental landlords

	UK	Denmark	Germany	Netherlands	USA
Market share	18% (2007)	20% (2004)	7% (2003)	33% (2006)	2% (early 2000s)
VAT new construction	No 0%-rate	No, exemption	No, exemption	Yes	No, not applicable; no sales tax
VAT repairs/ renovation	Yes but local authorities reclaim, RSLs do not	Yes	Yes	Yes	Not applicable
Transaction tax for acquisition of existing dwelling (stamp duty)	Mostly exempt; applicable to new dwellings too	Yes	Yes, applicable to new dwellings too	Yes	Yes, in some states; with some exemptions
Rental income taxation	Yes, but exemptions depending on legal status	No, exempted	Yes	Yes	Exempted
Mortgage interest deduction	Yes	Not applicable	Yes	Yes	Not applicable
Other cost deductions	Yes	Not applicable	Yes, depreciation deduction	Yes	Not applicable
Corporate Tax concessions	Yes, exemptions for some social landlords	Yes, exempted	Yes	Yes	Not applicable
Capital Gains Tax	No but some capital gains could be liable to corporation tax	Not applicable	Yes	Yes	Not applicable
Property, real estate or land tax	No, council tax liability is firstly with the occupier but can fall on the owner of a property	Yes, land tax as for other tenures	Yes, municipal real estate tax	Yes, local real estate tax	Yes, local real estate tax
Non-fiscal subsidy for landlord (incl. one-off)	Yes	Yes	Yes	Yes	Yes

Source: Table B2, Appendix B

Support for social rental landlords involves important but varying tax concessions in all the countries, except for the Netherlands. Stamp duty exemptions and some rental income tax and Capital Gains Tax concessions apply in the UK but not uniformly in the other countries. In detail these concessions vary with the legal status of the landlord with, for example, more generous exemptions for charitable providers. Real estate taxes apply in the other countries but given that Council Tax will fall in formal terms firstly on the occupier there is arguably less of a property tax burden in the UK. In Denmark social landlords pay the land tax but not the real estate (building related) tax that applies to owner-occupiers.

Taxes and subsidies for private rental landlords

Table 4 Taxes and subsidies for private rental landlords

	UK	Denmark	Germany	Netherlands	USA
Market share	12% (2007)	17% (2004)	54% (2003)	11% (2006)	30% (early 2000s)
VAT new construction	No, 0%-rate	No, exemption	No, exemption	Yes	No, not applicable; no sales tax
VAT repairs/ renovation	Yes	Yes	Yes	Yes	Not applicable
Transaction tax for acquisition of existing dwelling (stamp duty)	Yes, but some exemptions for social landlords; also for newly-built	Yes	Yes, also for newly-built	Yes	Yes, in some states; with some exemptions
Income tax (individuals) or corporate tax (companies) on net rental income	Yes	Yes	Yes	Yes	Yes
Mortgage interest deduction	Yes	Yes	Yes	Yes	Yes
Other operating costs deductible	Yes	Yes	Yes, plus depreciation deduction	Yes	Yes
Capital Gains Tax	Yes	Yes	Yes	Yes	Yes
Property, real estate or land tax	No, Council Tax liability is firstly with the occupier but can fall on the owner of a property	Yes	Yes	Yes	Yes
Other subsidies (incl. one-off)	No	No	No	No	Yes, Low Income Housing Tax Credit

Source: Table B3, Appendix B

Private landlords are treated as investors in each of the countries with net rental income and capital gains subject to tax. Deductions in arriving at net income are arguably relatively more generous in Germany because of depreciation allowances. Liability for real estate taxation is in principle different in the other countries given that Council Tax falls firstly on the tenant and only as a last resort on the owner of the dwelling.

Taxes and subsidies for tenants

Table 5 Taxes and subsidies for tenants

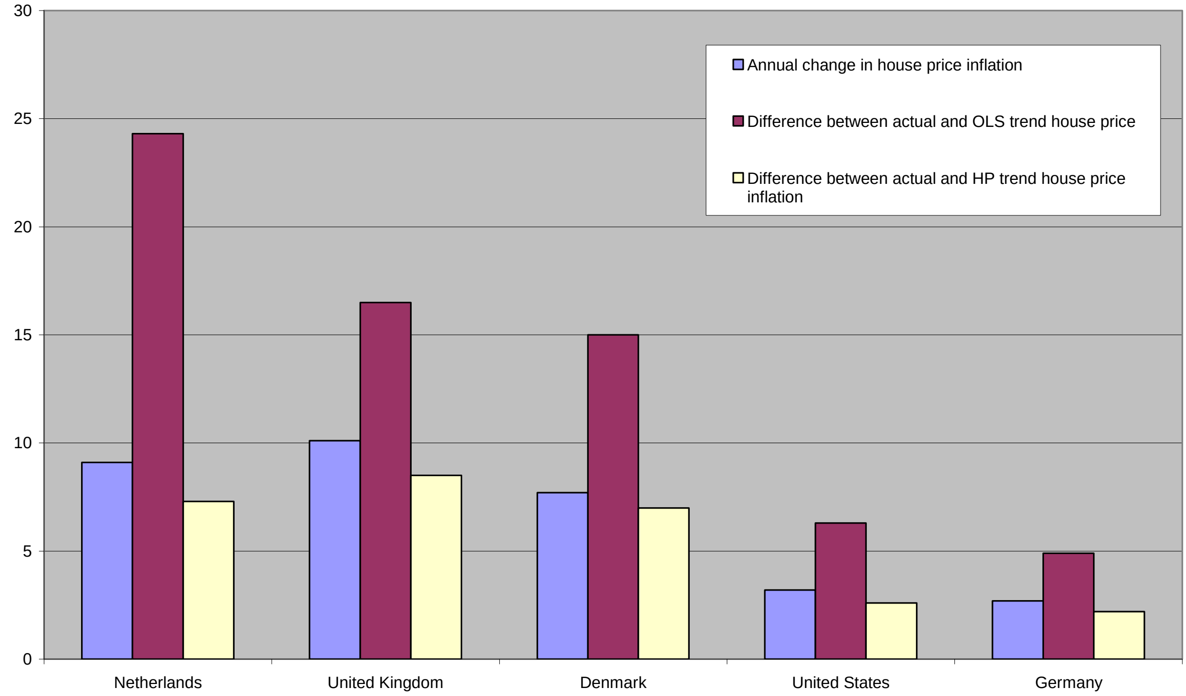
	UK	Denmark	Germany	Netherlands	USA
Market share	30% (2007)	37% (2004)	61% (2003)	44% (2006)	32% (early 2000s)
Property tax	Yes, Council Tax	No	No	No	No
Initial rents sub-market, social sector	Yes	Yes	Yes	Yes	Yes
Rent changes regulated, social sector	Yes	Yes	Yes	Yes	Yes
Initial rents regulated, private sector	No	Yes, but less regulation for properties first rented post 1991	No	Yes	Yes, rent restrictions in some jurisdictions
Rent changes regulated, private sector	No	Yes	Yes	Yes	Yes, in some cases
VAT-exemption on letting of immovable property	Yes	Yes	Yes	Yes	Not applicable; the USA has State Sales Taxes
Housing allowances for tenants (means-tested)	Yes, available to all tenants	Yes, available to all tenants	Yes, available to all tenants	Yes, available to all tenants	Yes, available to tenants moving into a good-quality private rental dwelling

Source: Table B4, Appendix B

In formal terms tenants are liable for property taxes in the UK but not in the other countries where the incidence is on owners. Social sector rents are regulated in each of the countries. Regulation of rents in the private sector varies a good deal between the countries with a relatively free market in the UK contrasting with tight controls on both initial rents and rent increase in the Netherlands and tighter regulation of rent increase in all the countries compared with the UK.

Housing market volatility evidence: The UK, Denmark, Germany, the Netherlands and the USA

Figure 1 Volatility in real house prices, five countries, 1970 – 2004



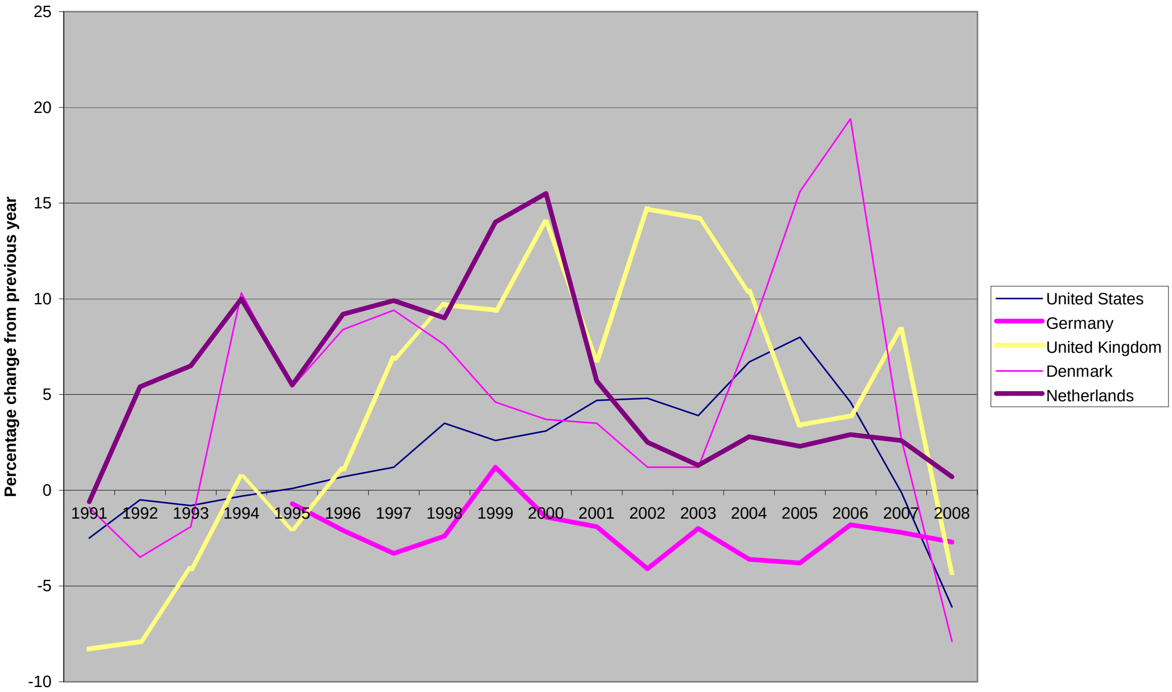
Source: Erlandsen (2006, p10, Table 1)
Notes:

Annual change in house price inflation: Annual data for 1970–2004 if not stated otherwise – UK is 1969 to 2004. Volatility is measured by the standard deviation. The countries are ranked in descending order of volatility based on a simple average of the standard deviations of the three series.
Difference between actual and OLS trend house price: Ordinary least squares.
Difference between actual and HP trend house price inflation: Hodrick-Prescott filter (lambda = 100).

UK

On the measures of volatility shown in Figure 1 the UK has experienced a comparatively high level of long-run volatility in house prices. On all three measures shown UK volatility is significantly greater than in Germany and the USA. Depending on which measures shown in the table are chosen, UK volatility is also greater than in both Denmark and the Netherlands or at least greater than in Denmark. On one indicator volatility is greater in the Netherlands. Figure 2 shows that the real annual rate of change in house prices year on year has in several years been higher than in each of the other countries. In all the years shown it is greater than in the USA and in all but one of the years for which data is available the real change is greater in the UK than in Germany. The graphs in Appendix A provide evidence of both the greater lon-term growth of real house prices and more marked cyclical activity in the UK compared with other countries. The lower level of long-term house price growth and the more stable markets in Germany and the USA are particularly apparent from this data. Appendix A shows the information for the five countries of this study and some additional countries. (The Treasury EMU study [HM Treasury, 2003; p43] also noted the high relative volatility, on some measures, of UK housing investment.)

Figure 2 Real house prices changes 1991–2008



Source: OECD Economic Outlook, 83 (2008) and 85 (2009).

Denmark

Price increases since 1992/3 seem to have been in line largely with fundamentals (macro-economic variables including incomes and interest rates) thus there was no bubble (Erlandsen, et al., 2006).

Denmark had a medium volatility rate of real house prices between 1970 and 2004 on the central indicator in Figure 1. However, during 2005 house prices rose 21 per cent in the fourth quarter – the largest increase in almost 20 years. This rise continued at the beginning of 2006. This large rise and fall in recent years is apparent in Figure 1.

Germany

The volatility of real house prices in Germany was, between 1970 and 2004, the lowest of all the countries compared (Erlandsen, et al., 2006). In nearly all of the years since 1995 real house prices on average have decreased as shown in Figure 2. One of the explanations is fact that nationally there is an oversupply of dwellings (Haffner, et al., 2009).

The Netherlands

The relatively high level of volatility of Dutch house prices is apparent from Figures 1 and 2. House prices have been pushed up for such a long period not only by income tax subsidies, but also by institutional arrangements around spatial planning and construction. These caused a doubling of real house prices between the early 1980s and 2007 (Haffner and de Vries, 2009).

The high house prices, however, could be fully explained by the underlying determinants in 2007. The relatively long period of price rises was brought about by a favourable economic situation combining rising household incomes and falling interest rates. Also, mortgage requirements eased. As a result house prices had every opportunity to rise without liquidity problems being generated for the households. Furthermore, in this century the increase in the stock of dwellings was relatively small.

The USA

The volatility of real house prices in the USA is low (see Figure 1). From 1991 to 2006 real house prices have been followed by decreases (see Figure 2). Econometric studies carried out for the USA demonstrate a significant relation between the development of construction costs and sales price (Abraham and Hendershott, 1996). This result strengthens the assumption that as the government exerts less influence and building land is made available without many restrictions, the influence of construction costs on house prices will increase. Thus the long-term price development of dwellings will be determined by the development of construction costs and supply will be able to respond to demand, possibly preventing too much house price volatility. In the USA in particular (and in all of the countries more generally) it is important to note that the data under consideration is national. Regional variations may give a different impression. The scope of this investigation does not extend to geographical variations within the countries examined.

Summary of housing tax and subsidies and links to market volatility, distribution and neutrality: The UK, Denmark, Germany, the Netherlands and the USA

UK

Table 6 UK: Housing tax and subsidy summary

	Taxation	Tax 'reliefs/deductions'	Other 'subsidies'
Owner-occupiers	Transactions and real estate (council) taxes	No imputed rental income taxation, no Capital Gains Tax	Discounts on acquisition, assistance for vulnerable households in mortgage difficulties
Social landlords	Some housing associations are liable for corporation tax	Mostly relief from transaction tax (Stamp Duty Land Tax); some corporate and Capital Gains Tax exemptions depending on legal status. Interest and cost deductions where income is taxable	Soft loans
Private landlords	Transactions, net rental income, capital gains and land taxes	Interest and cost deductions	
Social tenants	Real estate (council) tax	VAT-exemption on renting of immovable property	Sub-market rents, housing allowances
Market tenants	Real estate (council) tax	VAT-exemption on renting of immovable property	Housing allowances

Source: Tables B1-B8, Appendix B

Volatility

It could be argued that the high rate of volatility in the UK is linked to a lack of anti-cyclical real estate taxation (Table 6). Although the evidence from the other countries does not suggest a straightforward relationship between such taxation and volatility, real estate taxation that does vary with value is important in the other countries considered. Council Tax fails to act as an effective real estate tax in this sense because of the failure of taxable values to keep up with market values. Also the rates of tax vary with locality for revenue generation and other reasons and are not designed to promote market stabilisation.

On the tax wedge argument, the abolition of Mortgage Interest Tax Relief should have eliminated that tax wedge (given that it is based on after-tax and pre-tax mortgage interest rates) and worked towards less volatility in the UK. There is no evidence to support this proposition.

If the relative significance of demand- and supply-side support is important in explaining housing market volatility (Erlandsen, et al., 2006; Meen, 2006) then the shift in favour of demand-side support may have promoted volatility. Stephens, et al., (2005) show that while more than 85 per cent of housing subsidies in England were supply-side subsidies in 1975, by 2000 more than 85 per cent of subsidies were on the demand side.

Distribution

Given the high proportion of housing subsidies that are concentrated on means-tested housing allowances and that supply-side subsidies are concentrated on the supply of affordable housing, intended for lower income households, it is likely that housing subsidies have progressive income redistribution effects (Table 6). However, the tax advantages for home-ownership bring distributional advantages to home-owners that can benefit from rising real values compared with that segment of the population that cannot benefit (Table 6). The provision of social housing does provide an important safety net for low income and vulnerable households and this function is arguably more significant in the UK than in some other countries (Stephens, 2005; Stephens, et al., 2003).

Neutrality

The lack of imputed rental taxation and Capital Gains Tax give an advantage to owner-occupiers relative to other forms of investment, with owner-occupation treated as consumption good (Table B5, Appendix B). But private landlords can deduct Mortgage Interest Tax Relief and are treated in a similar fashion to other investors (Table B6, Appendix B). There is no VAT-neutrality, but there is transfer tax neutrality when investments in new and existing stock are considered (Table B7, Appendix B).

Denmark

Table 7 Denmark: Housing tax and subsidy summary

	Taxation	Tax 'reliefs/deductions'	Other 'subsidies'
Owner-occupiers	Transactions, land and real estate taxes	No imputed rental income taxation (but mortgage interest deduction), no Capital Gains Tax	
Social landlords	Transactions and land taxes	No net rental income taxation, corporate and Capital Gains Tax exemptions	Soft loans
Private landlords	Transactions, net rental income, capital gains and land taxes	Interest and cost deductions	
Social tenants		VAT-exemption on renting of immovable property	Sub-market rents, housing allowances
Market tenants		VAT-exemption on renting of immovable property	Some sub-market rents, housing allowances

Source: Tables B1-B8, Appendix B

Volatility

Denmark has two taxes that are linked to house prices (Table 7). First, for all properties land tax has to be paid. It amounts to between 1.6 and 3.4 per cent of the public assessed land value. The average was almost 2.6 per cent for 2009. The assessments of land are separated from the value of the buildings. They are at market values and the authorities find the assessments through a hedonic price method based on the public registration of all sales and their prices. The government since 2001 has operated a 'tax stop' policy through which it has limited how much the land tax must increase annually (4.7 per cent for 2008) (J. Lunde, 21 November 2009, personal communication). Thus the link with house prices as dampening effect on volatility will not be strong (Erlandsen, et al., 2006). The freeze on Danish real estate tax increases (rises in which would arguably have been usefully counter-cyclical) were part of a bigger 'tax freeze' package applied for macro-economic management reasons Second, Denmark has a real estate tax which is also linked to house value. For owner-occupation it has replaced the imputed rent taxation in 2000. Private and social renting as well as co-operatives are exempted. Real estate tax has been frozen to nominal amounts of tax payable in 2001. If house prices decrease the tax decreases as well, but the tax cannot be higher than the original nominal ceiling when prices rise. Thus it is not dampening house price upward movements (Erlandsen, et al., 2006).

If real estate taxation is regarded as the replacement of imputed rent taxation (which in Denmark it actually was), the effects of the real estate tax and the mortgage interest deduction in income tax can be combined. The combination of real estate tax and mortgage interest deduction at a rate of 33 per cent amounts to an effective real estate tax rate for homeownership of 0.55 per cent instead of 1.5 per cent for financial assets. Demand stimulation is combined with a limited Capital Gains Tax which may have fuelled speculation and further price rises in 2005/2006.

If volatility is about the tax wedge (based on after-tax nominal interest rates) on owner-occupied housing then Denmark will have a wedge lowering the nominal tax rate. This is because there is a full mortgage interest deduction which is only slightly countered by the real estate and land tax.

Distribution

Two types of housing allowances are focused on low income households (Table 7; Erlandsen, et al., 2006). The normal housing allowances are not available for owner-occupiers and co-operative owners, while the housing supplement in public pension is mainly available as a loan to them.

Subsidised social renting (Table 7) will be targeted as long as the dwellings remain available for low-income households.

Tax breaks and rent regulation in social and private renting are not targeted on low-income households (Table 7). If expressed in DKK per tenant the advantages may increase with income, wealth, age and level of education and decrease for pensioners on early retirement and for the long-term unemployed. When linked with household income or housing expenses, the outcome of such an exercise may be different.

Mortgage interest deduction for owner-occupiers is available at a proportional rate; thus it is not regressive. Neither is land tax. Stamp duty which increases with value will have progressive distributional effects. Owner-occupiers and co-operative owners are exempted from Capital Gains Tax infringing on the principles of horizontal and vertical equity.

Taking all subsidies together, the owner-occupier is estimated to be subsidised least with an amount of 6,200 DKK (2005 data; Erlandsen, et al., 2006). 8,200 DKK is estimated to be going to the private tenant, 10,400 DKK to the social tenant and 18,500 DKK to the co-operative occupier.

Neutrality

There is neutrality between owner-occupation and private renting for the acquisition tax and VAT on new construction (Table B5, Appendix B; Erlandsen, et al., 2006).

There is no tenure neutrality in income tax including capital gains taxation (Table B5, Appendix B). The owner-occupier, the co-operative owner and the social tenant generally are favoured in comparison to private renting. (One should note that even though in the structure of the tax and subsidy system, home-ownership is favoured, in actual distributional impact, measured in amount of subsidy, the co-operative owner is favoured above all tenures, but tenants also above owner-occupiers, even private tenants [see before])

Capital gains taxation has not been changed in any important way for several years (J. Lunde, 21 November 2009, personal communication). The tax is relevant for investors in residential rental properties but owner-occupiers are generally exempt. There are some concessions. For example, where parents own a flat, which is rented out to a child, the capital gain at selling is taxed but at a favourable price (85 per cent of the public assessed property value). Social housing landlords and private co-operative housing units do not pay Capital Gains Tax. Thus there is no tenure neutrality (Table B5, Appendix B).

The combination of real estate tax and mortgage interest deduction at 33% (income tax) amounts to an effective real estate tax rate for homeownership of 0.55% instead of 1.5% for financial assets (see above; Erlandsen, et al., 2006). Income tax neutrality between both types of assets is not achieved; homeownership is favoured in comparison to financial assets (Table 6, Appendix B).

VAT is levied on repairs; new construction is exempted (Table 7, Appendix B; Erlandsen, et al., 2006). Furthermore, there are bricks-and-mortar subsidies for new rental construction (of total housing subsidies this amounts to 10.2% of GNP, 2005), but also for private investors in urban renewal (of total housing subsidies this amounts to 4.9% of GNP, 2005 data; Erlandsen, et al., 2006). Investment in new construction is thus favoured in comparison to repair of the existing stock; also if repairs would be exempted from VAT.

Germany

Table 8 Germany: Housing tax and subsidy summary

	Taxation	**Tax ‘reliefs/deductions’**	**Other ‘subsidies’**
Owner-occupiers	Transactions tax, Capital Gains Tax if sold within 10 years of acquisition, municipal land tax.	No imputed rental income taxation (but also no cost deduction), no Capital Gains Tax if dwelling kept for more than 10 years	Housing allowances, housing and pension savings schemes
Private landlords*	Transactions, net rental income, capital gains and land taxes	Loan interest, operating costs and depreciation cost deductions; corporate/income tax concessions (e.g. depreciation)	Time limited bricks-and-mortar subsidies
Social tenants		VAT-exemption on renting of immovable property	Sub-market rents, housing allowances
Market tenants		VAT-exemption on renting of immovable property	Some limits on rent increases, housing allowances

Source: Tables B1-B8, Appendix B

* Officially there are no social landlords, only private landlords who can build subsidised rental dwellings. Some ‘inactive’ rental co-operatives still have a non-profit fiscal status which has been abolished for other landlords (Haffner, et al., 2009).

Volatility

Germany has one tax that in principle is linked to house value: the municipal land tax for all owners of real estate (Table 8). It amounts to a percentage of house value and land value combined, but it is not linked to market value but rateable values (based on values of 1964). It is not clear whether these values move in tandem with the development of market values, but it does not seem to be the case (see http://www.handelsblatt.com/politik/deutschland/bundeslaender-wollen-grundsteuer-reformieren;10746890). A dampening effect on house price increase will most likely not be achieved.

If it is about the tax wedge (based on after-tax nominal interest rates) on owner-occupied housing that influences house price volatility, then Germany is one of the few countries where the tax effect is zero, and the after-tax nominal interest rate is increased with property tax (van den Noord, 2005). This is contrary to the situation in Denmark, the Netherlands and the United States.

Distribution

Subsidies that are focused on low-income households are housing allowances which are also available for owner-occupiers (Table 8). There are also bricks-and-mortar subsidies for landlords (to finance subsidised 'social' rental dwellings).

The savings scheme (Bausparen, see http://www.bausparkassen.de) is available for everyone (Table B1, Appendix B). Capital is saved first against a lower-than-market interest rate; this also goes for the loan that will be subordinated to other loans which usually are also needed to finance the owner-occupied dwelling. During the savings period a general annual government subsidy will be granted to households with an income up to a certain income limit. There is also an annual employee grant available from government (the income limit is lower). Higher income households will most likely be able to save more money in such a scheme, thus being able to receive the full amount of annual grants.

A similar effect can be identified for the so-called Riester pension (*Riester Rente*) which is a voluntary private pension system based on private savings and government subsidies and which can also be used for the acquisition of housing property (Table B1, Appendix B). The Riester pension facilitates tax-deferred savings.

Since 1 January 2008 the acquisition of owner-occupied and co-operative housing based on the Riester pension can also be subsidised. Repayments on so-called 'for the Riester pension certified' mortgage loans to acquire housing property can be subsidised with an annual subsidy. Both amounts (repayment and subsidy) are counted as savings into a fictitious Riester pension account. Tax payment on this account is deferred until the 'official date' of usage has passed, for example, pension age). It is also possible to use funds saved for the Riester pension to acquire housing property for own usage (Bundesregierung, 2009). As there is no relationship between income and benefits, lower income households will most likely receive less subsidy as there is a relationship between annual amount of repayment (which a lower-income household will be less able to afford) and the subsidy (see http://www.bundesfinanzministerium.de/nn_55118/DE/Buergerinnen__und__Buerger/Alter__und__Vorsorge/040__Wohnriester__bsp.html?__nnn=true).

Land acquisition tax and land estate tax (and VAT for repairs; Table 8) are proportional, thus not regressive. Explicit Capital Gains Tax is not due for home-owners (unless the ownership period is shorter than ten years). This will infringe on the principles of horizontal and vertical equity.

Neutrality

There is neutrality between owner-occupation and private renting for the acquisition taxes (VAT, land acquisition tax and land tax) and the property tax (Table B5, Appendix B).

There is no tenure neutrality in income tax including capital gains taxation (Table B5, Appendix B). The owner-occupied dwelling is treated as consumption good; the rental dwelling as investment good. In principle this means that owner-occupiers do not pay any taxes, while landlords do. There may however be capital gains taxation of the owner-occupied dwelling, if sold within ten years after acquisition. When degressive fiscal depreciation (higher percentage in the beginning, lower percentages later) existed until the end of 2005 it was regarded as favouring rental housing over owner-occupation (Braun and Pfeiffer, 2004; Voigtländer, 2006). As there is no depreciation deduction at all for owner-occupied dwellings, even the linear depreciation deduction which exists nowadays can be regarded as favouring rental housing.

There is no neutrality in the tax treatment between the owner-occupied dwelling and the financial asset, as it is treated as consumption good and it is usually exempted from Capital Gains Tax unless the ownership period is shorter than ten years (Table B6, Appendix B).

We assume that VAT is levied on repairs; new construction is exempted (Table B7, Appendix B). There would be an advantage for new construction compared to repairs. The transfer tax is levied on both new construction and the acquisition of an existing dwelling implying neutrality between investment in new and existing stock.

Thus if one were to compare the distortion in the acquisition of a new dwelling verses the acquisition of an existing dwelling, then the existing dwelling may be favoured over the new dwelling, as land acquisition tax is low, while a VAT-exemption will deliver input taxed supplies which will have to be included in the cost price of the dwelling, as they are not retrievable from the tax authorities.

Netherlands

Table 9 Netherlands: Housing tax and subsidy summary

	Taxation	Tax 'reliefs/deductions'	Other 'subsidies'
Owner-occupiers	Transactions tax, imputed rental income tax, local real estate tax	Full mortgage interest tax relief (verses low imputed rent taxation), no Capital Gains Tax	Housing allowances as grant to certain group of households, mortgage guarantee that can be increased in the case of payment difficulties, first-time buyer loans, loan guarantees that reduce interest rates
Social landlords	Transactions, net rental income, capital gains and local real estate taxes	Loan interest and operating costs deductions	Loan guarantees that reduce financing costs
Private landlords	Transactions, net rental income, capital gains and local real estate taxes	Loan interest and operating costs deductions	
Social tenants		VAT-exemption on renting of immovable property	Sub-market rents, housing allowances
Market tenants		VAT-exemption on renting of immovable property	Sub-market rents, housing allowances

Source: Tables B1-B8, Appendix B

Volatility

The Netherlands has two taxes that in principle are linked to house value (Table 9). First, there is the real estate tax for all owners of real estate. In principle it is a percentage of house prices, but rates will go down when prices rise, as the revenues are used by municipalities to pay for local services. The second tax is the taxation of imputed rent of an owner-occupied dwelling for as long as the mortgage loan has not been repaid. Annually, the percentage is adjusted; it rises with rents, but is corrected for house price rises. Neither of these taxes thus have a dampening effect on house price increases.

Dutch Central Bank (DNB, 2008) argued that the risk of a downward house price correction in the Netherlands as a result of the effects of the American credit crisis will be much lower than in some other countries. For most of 2008 this has been correct as house prices in the Netherlands (and Sweden) had not started falling in the third quarter of the year.

DNB (2008) asserted that the reason for relatively less downward movement of house prices in the Netherlands than in some other countries can be found in the situation on the local housing market. It differs from that in other countries. First, there is the relatively low share of home ownership (54 per cent), making fewer households vulnerable to changes in mortgage interest rates. Second, there is a relatively low share of mortgage loans with variable interest rate, or an interest rate fixed for a period of less than one year (15 per cent). Third, there is a relatively high share of mortgage interest that is deductible in income tax (up to 52 per cent). Changes in mortgage interest rate are thus mitigated more than in most other countries, where interest deduction is more limited or does not exist .(In the case of an endowment loan, the interest rate charged is also received on the savings in the capital insurance. This is another dampening effect; the higher the rate, the less monthly savings and vice versa. The total amount due in relation to mortgage and saving does not change very much due to this mechanism. Interest rates, however, have not gone up because of the global financial crisis.) Affordability of mortgage expenditure will be changed at a slower rate. As the fourth reason, DNB argued that in countries where house production and the number of rendered building permits has been relatively high in the past decade (speculative building), the drop in demand may hit harder. The Netherlands is not one of those countries as house building has been decreasing for several years in the 21st century and has not regained the higher levels of production that were achieved in the past century.

If it is about the tax wedge (based on after-tax nominal interest rates) on owner-occupied housing that influences house price volatility, then the Netherlands is a country where the effect would be very strong compared to other countries (van den Noord, 2005). Mortgage interest deduction is unlimited and takes place against marginal tax rate, while taxation of imputed rent is low (for as long as the mortgage is not repaid) and there is no Capital Gains Tax.

Distribution

Low-income tenants can receive housing allowances and are protected by rent regulation in 95 per cent of the rental sector (Table 9). Furthermore, there is the so-called unprofitable investment of new social rental housing that will not be earned by the social landlords (housing associations) in the first period of management of the dwellings. Rents are set lower than cost price accordingly and housing associations pay for that from their own equity. There are no longer any government bricks-and-mortar subsidies for new construction of housing available (only possibly for urban restructuring and ‘difficult’ locations).

For lower-income households wanting to become owner-occupiers in some municipalities there is the possibility to obtain a so-called first-time buyer loan which requires neither interest payments nor capital repayments for the first three years. Furthermore, there is a mortgage guarantee (backed by government; Table 9) available against low costs that will guarantee the repayment of the mortgage to the lender (Elsinga, et al., 2004). This will allow for the mortgagor to obtain a mortgage with a lower interest rate (as the risk for the financial institution is lower than normal). If a household with a mortgage guarantee runs into payment difficulties, there is the possibility to increase the guaranteed loan amount up to 9 per cent in order to create time to find a solution to the financial problems.

The tax wedge (based on after-tax nominal interest rates; van den Noord, 2005) for owner-occupiers increases with income as deductions are against marginal tax rate.

Income tax subsidies (based on tenure neutrality between owner-occupier and private person landlord) also increase with income (Besseling, et al., 2008). Total housing subsidies amount to more than 3,000 Euro per owner-occupier (compared to tenure neutral benchmark in income tax taking transfer tax and property tax into account) and more than 4,000 Euro per tenant (based on an estimate of market rents, unprofitable investment by social landlords, housing allowances and taking property tax into account).

On the distribution of these advantages Besseling, et al., (2008) estimate for home-owners that the income and welfare advantages expressed as total amounts increase with income (regressive), but expressed as a percentage of income they decrease with income. The increasing amounts relate to bigger and more expensive dwellings and larger mortgage sums. That the welfare advantage is almost equal to the income advantage is based on the fact that choice is not rationed by the subsidisation.

On distribution of advantages Besseling, et al., (2008) estimate for tenants that the income advantages expressed as amount are about equal for all income groups, but decrease with income when expressed as a percentage. The welfare advantages will decrease in both cases with income, because the effect of the biased and restrained tenure choice (too small a dwelling) will be bigger with a higher income.

VAT, transfer tax and real estate tax are proportional, thus not regressive. Explicit Capital Gains Tax is not due for home-owners and private person landlords (unless the 4 per cent imputed rent for private person landlords conceptually includes indirect return). This will infringe on the principles of horizontal and vertical equity.

Neutrality

There is neutrality between owner-occupation and private renting for the acquisition taxes, VAT on new construction, transfer tax for existing dwellings and property tax (Table B5, Appendix B).

There is no tenure neutrality in income tax including capital gains taxation. The owner-occupier is generally favoured in comparison to renting, as the owner-occupier with a mortgage interest deduction always has a negative tax ‘to pay’. (One should note that even though in the structure of the tax and subsidy system, home-ownership is favoured, in actual distributional impact, measured in amount of subsidy, the tenant on average is estimated to receive a bigger subsidy than the owner-occupier.See before; Besseling, et al., 2008.) A ‘negative tax to pay’ means that technically the owner-occupier never has an income from the dwelling, only a loss. The tax levied will be zero, when the mortgage loan is repaid: the owner-occupied dwelling is then treated as consumption good. This combination of incomplete investment good and consumption good approach in fact allows the owner-occupier to profit twice. The private person landlord (and company landlords that are taxed in corporate tax), on the other hand always pays tax (as long-term losses are not viable). The income tax calculated on a dwelling let out by a private person as investor (not running a business) is the value of the dwelling net of the debt times a 4 per cent imputed return times a 30 per cent tax rate. Actual revenues (rents) and costs (maintenance, interest) are thus irrelevant for income tax purposes.

There is no tax neutrality between owner-occupied housing and financial assets (Table B6, Appendix B). The income tax treatment of financial assets is the same as that of private person landlords operating as investor (not running a firm). Financial assets (equity minus debt) are imputed a 4 per cent return which is taxed with a 30 per cent tax rate. Thus investors generally pay tax (unless the loan is equal to the value of the asset), while home-owners 'pay' negative tax on their dwelling or nothing after the mortgage loan is repaid (treated as consumption good).

VAT is levied on repairs and new construction; thus there is neutrality between investment in new and existing stock on this point (Table B7, Appendix B). On the other hand the transfer tax of 6 per cent is only levied on the acquisition of existing dwellings.

USA

Table 10 USA: Housing tax and subsidy summary

	Taxation	**Tax 'reliefs/deductions'**	**Other 'subsidies'**
Owner-occupiers	Real estate transfer tax in some states, capital gains and local real estate taxes	No imputed rental income tax, mortgage interest and property tax relief, capital gains mostly exempted, local property taxes deductible for income tax purposes	Housing allowances in some states, shared equity schemes, grants (former tax credits) for buyers
Social landlords	Real estate transfer tax in some states	Income, corporate and Capital Gains Tax concessions	Tax credits
Private landlords	Real estate transfer tax in some states, capital gains and local real estate taxes	Loan interest and operating costs deductions	Some low income tax credits
Social tenants			Sub-market rents
Market tenants			Some controlled rents, housing allowances

Source: Tables B1-B8, Appendix B

Volatility

The USA has one tax that in principle is linked to house value: the local real estate property tax for owners of real estate residential property (Table 10). The tax amounts to a percentage of assessed values which do not seem to be reflecting market values (Bourassa and Grigsby, 2000). A dampening effect on house price increase will thus most likely not be achieved. Furthermore, it is regressive as real estate tax is income tax deductible against marginal, progressive tax rates.

If it is about the tax wedge (based on after-tax nominal interest rates) on owner-occupied housing that influences house price volatility, then the USA is a country where the effect would be very strong compared to other countries (Van den Noord, 2005). Mortgage interest deduction is relatively unlimited and takes place against marginal tax rate, while there is neither taxation of imputed rent nor of capital gains (mostly exempted), but there is a property (real estate) tax which will reduce the wedge.

Distribution

The deductions of interest payments and property taxes are regarded as inequitable (Table 10; OECD, 2007; based on estimates from the Urban-Brookings Tax Policy Center, 2005). A large part of the deductions of mortgage interest and property taxes goes to taxpayers with higher incomes: 54 per cent goes to taxpayers with incomes exceeding $100,000 and 72 per cent goes to those whose income exceeds $75,000. These outcomes will not come as a surprise considering that higher-income households tend to have larger houses financed with larger outstanding debts and also bigger sums of property taxes to be paid. The fact that the deductions can be made against progressive taxes helps to channel the biggest sums of money to those that may not need the money most urgently. Property tax becomes regressive. As mentioned for other countries, the distribution of these deductions does not say anything about the effect of these deductions when related to household income or housing costs.

Besides these tax subsidies mainly going to the higher-income households, there are also subsidies for the lower-income households while the mid-income households mostly receive neither (Urban-Brookings Tax Policy Center, 2005).

The instruments that are focused on low-income households are public rental housing and so-called Section 8 subsidies (housing allowances or vouchers as they have also been called in the USA for private tenants and in some jurisdictions also for owner-occupiers; Table 10). Furthermore, there are shared equity home-ownership schemes (affordable housing with community-based support) and grants for buyers (income-limited, price-limited) which are rooted in tax credits as interest-free loans. At least some of those tax credits have (temporarily) been turned into grants as a response to the global financial crisis.

Personal income tax expenditures amount to more than 1 per cent expressed as percentage of GDP in 2008: 0.61 per cent for the deductibility of mortgage interest on owner-occupied homes and 0.28 per cent for the deductibility of state and local taxes (OECD, 2007). Personal income tax expenditure for the capital gains exclusion of home sales amounts to 0.26 per cent of GDP in 2008 (OECD, 2007).

Revenue loss estimates for the four tax income expenditures for owner-occupied housing are 0.2 per cent of GDP for the exclusion of net imputed rental income, 0.5 per cent of GDP for the deductibility of mortgage interest, 0.2 per cent of GDP for the deductibility of state and local property taxes and 0.2 per cent for the exclusion of capital gains on home sales (OECD, 2007).

Neutrality

The tax subsidies for landlords are much less than for owner-occupiers (Bourassa and Grigsby, 2000). Thus there is no tenure neutrality between the owner-occupier and the private landlord (Table B5, Appendix B; OECD, 2007). The owner-occupied dwelling is allowed a deduction of mortgage interest and local real estate property tax; there is no taxation of imputed rent, and generally no taxation of capital gains. The rental dwelling is treated as an investment good.

Net income (gross income plus any change in the value of the dwelling minus the costs to obtain income) derived from owner-occupation is not taxed in a similar way to other income from capital (Table B6, Appendix B). Investment in housing implies lower tax payments than investment in financial assets due to the possible deduction of mortgage interest on debt-financing and of real estate property tax. If local real estate property tax is considered a form of imputed rent taxation (OECD, 2007, compare with Denmark), neutrality will change towards a less favourable treatment of home-ownership compared to that of financial assets.

The exemption of owner-occupied dwellings from Capital Gains Tax is a deviation from tax neutrality which favours investment in home-ownership over other investments. However, there exist favourable options for capital gains taxation for other investments (OECD, 2007).

There is no VAT (not applicable) or sales tax on the value of properties (OECD, 2007). We do not know whether sales taxes are due on repairs, but if it is, then there would be no neutrality in investment in new and existing stock. There may be a real estate transfer tax levied on the buyer, but not necessarily, if the seller is the one who has to pay. In the latter case, there will be neutrality with new construction where no real estate transfer tax is due.

UK reform options

Table 11 Reform options and possible contributions to volatility, distribution and tenure choice/investment objectives

		Volatility	Distribution	Tenure and investment choices	Country example
1	Apply imputed rental income tax to owner-occupiers	Maybe	Maybe	Maybe	Netherlands
2	Apply Capital Gains Tax to owner-occupation	Maybe	Maybe	Maybe	Germany Denmark USA
3	Abolish Stamp Duty Land Tax			Maybe	
4	Reform Stamp Duty Land Tax	Yes	Yes	Yes	
5	Introduce new forms of property taxation	Yes	Maybe	Maybe	Denmark Germany USA
6	Introduce a universal housing allowance		Yes	Yes	Germany
7	Introduce housing tax credits		Yes	Yes	USA
8	Reform/reduce housing VAT	Yes			
9	Provide depreciation allowances for landlords	Yes			Germany
10	Incentivise private supply for social purposes	Yes			Germany
11	Introduce tax/subsidies concessions for additional real housing investment	Yes	Yes		

Some reform options that have been suggested for the UK are listed in Table 11. Not all options are included but these are the reforms about which we are best able to make some comments on the basis of this research. Other ideas include, for example, changes to inheritance tax, increased taxation on second homes and more favourable taxation for the ‘rent-a-room’ scheme (see these and other proposals in Crawshaw, 2009). Any one option should logically be part of a package and several options might be introduced together. Several of the changes would, furthermore, imply changes in other existing taxes. For example, real estate and land tax changes would most probably be linked to changes in Council Tax and Stamp Duty Land Tax. Some of the options have a large degree of potential overlap. A universal housing allowance might, for example, be introduced through the use of tax credits. A package of changes would of course have contexts that are broader than housing markets and housing policy considerations. These contexts would include reforms to local authority finance and have links to a wide view of potential changes in tax of the sort that are under consideration by the Mirrlees Commission (see Adam, et al., 2009 and Boadway, et al., 2009).

The use of ‘Yes’ in the table suggests that there is a good chance of the reform achieving the objective. The use of “Yes” against an option can imply that there is good chance in principle of the measure achieving the objective even though in some cases the country-based evidence is limited. For example, in the case of a universal housing allowance and tax credits there is potential for appropriately designed instruments to achieve clear distributional and tenure neutrality objectives even though the specification of these instruments in the countries examined has not necessarily been sufficient to produce these outcomes. The use of ‘Maybe’ suggests that the outcome is less certain and is highly dependent on the exact specification of the new instrument and the ways in which the reform is combined with other changes.

An ideal package of housing reforms might have the following objectives: (i) less volatile housing markets; (ii) less distortion of choices between owning and renting; (iii) additional support for low-income and vulnerable households; and (iv) additional housing investment incentives.

Changes to real property taxation plus measures that incentivise supply more clearly appear to be the most likely options for achieving objective (i) and the supply incentives will also contribute to objective (iv). Objectives (ii) and (iii) can be promoted by changes that rationalise the tax and subsidy system according to a set of consistent principles, including whether housing is treated as a consumption or investment good. They provide household-specific assistance on a neutral tenure choice basis. Objective (iii) may also warrant additional targeted tax and subsidy interventions. It will be difficult to formulate a package that addresses all four objectives in a way that does not compromise at least one objective. Thus some trade-offs will most probably be needed.

Changes that involve applying imputed rental income tax and Capital Gains Tax to owner-occupation might have some potential to be dampen demand in a market upswing if they are sufficiently large enough and market sensitive enough to dampen expectations of gains from asset value inflation. However, the effects of capital gains taxation in particular are debateable and there are arguments that such taxation increases volatility. The impacts of such taxation on distributional and tenure choice objectives depend on the exact specification of the distributional objectives. If a purpose of reform is to put the investment treatment of home-ownership on a par with investments in the rental sector then they should also logically be accompanied by deductions for mortgage interest tax relief. That measure does, however, have the potential to benefit high- income households and to produce adverse distributional outcomes.

If the emphasis in a reform package is on property taxation, one should heed the caution suggested by those who point out that the overall tax revenues on property in the UK amount to 4 per cent of GDP and are the highest of all the OECD countries (see Boadway, et al., 2009). This suggests changes to property tax that make them more anti-cyclical rather than an increase in the overall take from property taxation. It has also been suggested that land taxes are better than real estate taxes (which tax the value of a building plus the land) because they do not provide disincentives for individuals to add value to their property through extensions and improvements (Boadway, et al., 2009). The only example of land taxation of this sort in the countries investigated is in Denmark. The difficult issue of separating land value from the value of the property as a whole is tackled in Denmark through hedonic pricing using a public database. The tax is not, however, used as effectively as it might be as an anti-cyclical measure as values have effectively been subject to politically imposed restraint since 2001.

While Stamp Duty Land Tax may also have some anti-cyclical effects (ECB, 2003) its role as a transaction tax is argued by some to have disincentive effects that hinder the efficiency of markets. On this basis arguments are advanced for the elimination of this tax (see for example Boadway, et al., 2009). If Stamp Duty Land Tax is retained there are several proposals worth considering that rationalise the tax by making it a marginal tax such that only purchase values in excess of a given threshold are taxed at the relevant rate rather than the whole value of the transaction as is currently the case (Andrew, et al., 2003). There are also detailed proposals from the Royal Institute for Chartered Surveyors for a reformed marginal system of Stamp Duty Land Tax that would result in large gains for the buyers of lower priced properties (Hebert, 2008; see also Crawshaw, 2009). There might thus be some progressive distribution effects from such a change. A further issue is that in some countries (Denmark, the Netherlands) the equivalent of stamp duty in not levied on the purchase on new homes. In practice this is at least partially offset by the levying of VAT on new building in the Netherlands. In the UK exemptions of new dwellings from Stamp Duty Land Tax could provide an additional supply-side incentive.

Universal housing allowance and tax credit measures are targeted at distributional and tenure choice objectives. The impact depends, as with the other options, on the details of the scheme. However, a system that crosses tenure boundaries in relating assistance to income and housing costs clearly has large potential benefits. This is in line with longstanding arguments advanced by the Joseph Rowntree Foundation (Best, 2005).

VAT changes have the potential to both incentivise housing production and to encourage more investment in the existing stock. One option would be to extend the reduced (5 per cent) rate to a wider range of conversions and improvements.

The large private rented sector in Germany has arguably been helped by a generous taxation regime that has historically included degressive depreciation allowances. Except for some relief for furniture and equipment for private landlords who let furnished property, such incentives are absent in the UK. Depreciation or investment allowances related to investment in buildings (as opposed to the contents) could provide extra incentives for UK landlords. This might be combined (again as in the German case) with a contract system for the provision of social housing that effectively allows landlords with a variety of legal forms to provide housing with a social propose in return for subsidisation.

More generally a tax and subsidy system that was designed with supply incentives in mind could arguably have radical stabilisation and distributional outcomes, particularly if the instruments were targeted on supply intended for lower income households.

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See: http://www.jrf.org.uk/sites/files/jrf/inquiry-british-housing.pdf

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About the authors

Professor Michael Oxley (project director)
Professor of Housing, Centre for Comparative Housing Research, De Montfort University/ OTB Research Institute for Housing, Urban and Mobility Studies, Delft University of Technology

Dr Marietta Haffner
OTB Research Institute for Housing, Urban and Mobility Studies, Delft University of Technology

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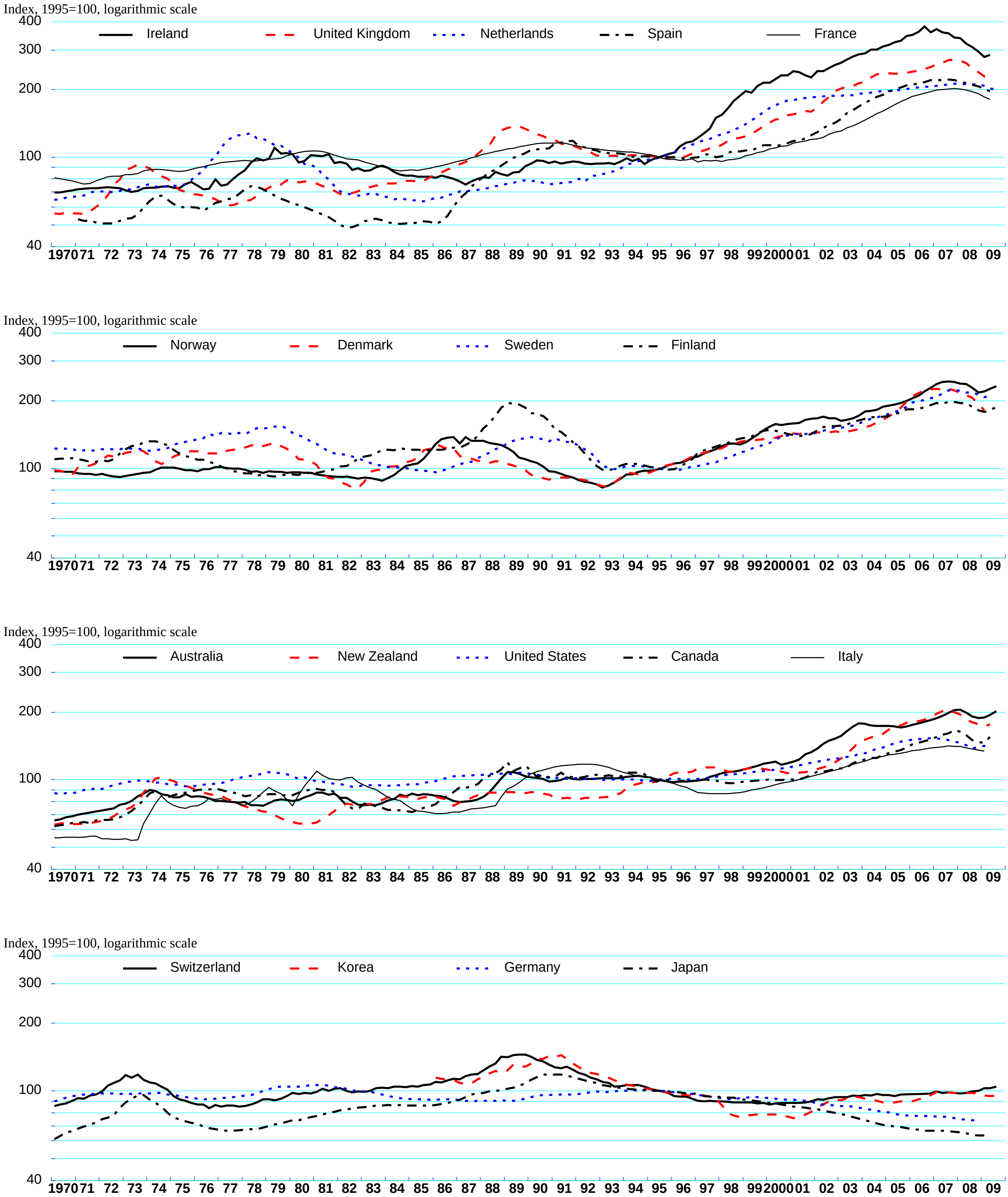
Appendix A Rising real house prices

Figure 1. Real house prices

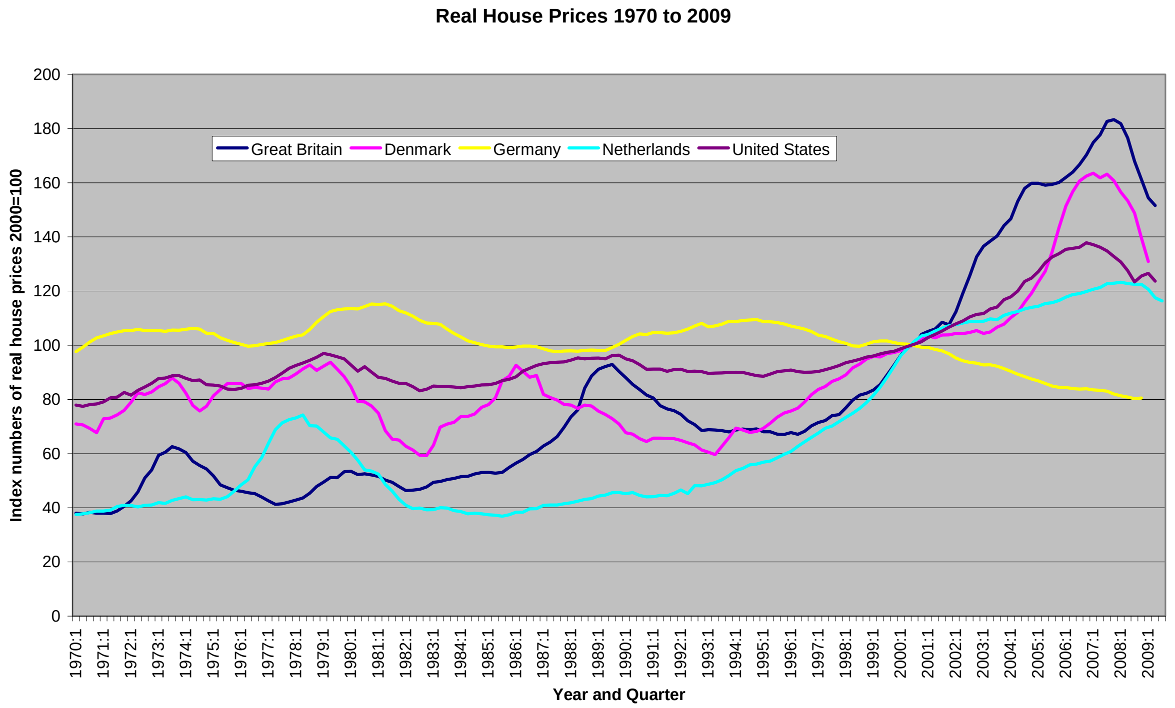
Nominal prices deflated by the consumer price index



Source: National sources, BIS and OECD calculations.

Source: André (2009)

Figure A2 Real house prices 1970 to 2009



Source:
Not derived from an official OECD database. It is updated by the OECD Economics Department for its own analytical needs and is shared with others solely for research purpose. The sources and methodology are described in OECD Economics Department working paper No 475.

NB:
For Germany, the original data are annual.

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Appendix B Detailed tax and subsidy tables for the five countries

Table B1 Taxes and subsidies for owner-occupiers (principal home)

	UK	Denmark [0]	Germany	Netherlands	USA [0]
Market share	69% (2007) [1]	52% (2004) [1]	39% (2003) [1]	56% (2006) [1]	69% (2005) [1]
Savings scheme subsidy before acquisition	No (2009) [2]	No (2009) [2]	Yes (2009) [2]	No (2009) [2]	No (2007) [2]
Acquisition					
VAT on new construction and repairs*	Yes, (2010) but 0% on new construction; 17.5% on repairs; 5% for some conversions, renovations and installations [3]	No, (2007) exemption for new construction yes, 25% on repairs [3]	No, (2007) exemption for new construction presumably yes, 19% on repairs [3]	Yes, (2009) 19% on new construction and repairs [3]	Not applicable, (2007) also no sales tax on the value of properties in the case of new construction [3]
Transaction tax for existing dwelling for buyer	Yes, (2010) Stamp Duty Land Tax with thresholds and bands; 1% to 4%; some exemptions in disadvantaged areas and temporary reductions in Dec 2008 to Dec 2009; also on newly built dwellings [4]	Yes, (2009) stamp duty of 0.6% of acquisition price or 1.2% of last known assessed value (2000); registration of the transfer of certain assets is subject to stamp duty of 0.1% to 1.5% + DKK 1400 [4]	Yes, (2009) 3.5% land acquisition tax without threshold and bands; also for newly-built dwelling (double taxation in combination with VAT) [4]	Yes, (2009) 6% transfer tax without threshold and bands (2009) [4]	Yes, (2009) a state real estate transfer tax may be due; rates are between 0.01 and 2.2% [4]
One-off subsidy for buyer	Yes, (2009) right-to-buy discount; right-to-acquire discount [5]	No, (2009) [5]	No, (2009) [5]	No, (2009) [5]	No, (2007) [5]
Period of occupation					
Income tax					
Imputed rent taxation	No, (2004) [6]	No, (2009) imputed rent taxation abolished in 2000 and	No, (2007) abolished in 1987 [6]	Yes, (2009) 0.55% of market values of higher than 75000 Euro;	No, (2007) [6]

	UK	Denmark [0]	Germany	Netherlands	USA [0]
		replaced by a real estate tax [6]		no, as soon as mortgage is repaid [6]	
Mortgage interest deduction	No, (2004) some assistance for vulnerable households, see safety net below [7]	Yes, (2009) flat rate, unlimited period; but for interest payments above 50000 DKK (100000 DKK couples) allowable rate reduced from 33% to 25% [7]	No, (2007) abolished in 1996 [7]	Yes, (2009) marginal rate; maximum of 30 years; after first dwelling, deduction is only for the difference between price of next dwelling and equity built up in previous dwelling [7]	Yes, (2007) marginal rate; up to a limit of $1 million acquisition loan plus up to $100000 in other loans such as home-equity loans, regardless of the loans' purposes [7]
Other cost deduction	No, (2004) [8]	No, (2009) [8]	No, (2009) [8]	Yes, (2009) 1) implicit via imputed rent (2001); 2) actual financing costs deductible [8]	Yes, (2007) 1) local real estate property taxes 2) borrowing costs (2005) [8]
Income tax subsidy for other than the mentioned instruments	No, (2004) [9]	No, (2009) [9]	No, (2009) not specifically for housing, but yes for Riester-pension used to acquire housing property for own use [9]	Yes, (2009) tax exemption of savings in capital insurance for mortgage repayment in case of an endowment mortgage [9]	No, (2007) [9]
Capital gains tax	No, (2004) exemption of principal residence [10]	Yes, (2009) exempted if occupied by the owner and total land area is less than 1400 square m [10]	Yes, (2007) if sold before 10 years have passed after acquisition [10]	No, (2009) [10]	Yes, (2007) unless dwelling is not occupied during 3 of the last 5 years, with upper limits; gain is included in net capital gain (2007) and taxed at lower capital gains rate (2004); losses from sale are not deductible (2004) [10]
Property,	Yes,	Yes,	Yes,	Yes,	Yes,

	UK	Denmark [0]	Germany	Netherlands	USA [0]
real estate or land tax	(2009) council tax levied by local authorities; bands based on 1991 valuation [11]	(2009) 1) municipal-ities levy a land tax of between 0.6 and 2.4% of the assessed land value; land value without real estate; there is a tax freeze 2) a real estate tax is levied by municipalities and counties (2000) on residential properties amounting to 1% of the assessed property value (3% for property values over DKK 3040000, 407500 Euro); there is a tax freeze [11]	(2009) municipal land tax (Grundsteuer); paid for by owner; 0.3-1% of rateable values (2001) including the value of land and building; should be called real estate tax here [11]	(2009) local real estate tax, paid for by owner, on assessed market value of the year before, valued once a year; average is 0.0936% (corrected for differences between municipalities); minimum rate is 0.034%; maximum rate is 0.1787% [11]	(2005) local real estate property taxes; fixed fraction of assessed house value; few deductions for specific groups (e.g. homestead deduction based on age and disability); the effective tax rate amounts to the national unweighted average rate of 1.7% [11]
Wealth tax	No, (2009) [12]	No, (2009) abolished in 1997 [12]	No, (2009) abolished in 1990 [12]	No, (2009) [12]	No, (early 2009) [12]
Housing allowances	No, (2009) [13]	No, (2009) for the general housing allowance; yes, for the housing supplement in the public pension which is given as loan; of little significance [13]	Yes, (2009) [13]	Yes, (2009) monthly grant, only for mortgagors with a mortgage guarantee (see below [13]	Yes, (2001) in some states [13]
Other non-fiscal subsidy					
Non-safety net subsidy	No (2009) [14]	No, (2009) [14]	Yes, (2009) 8-year Eigenheimzulage abolished per 1	Yes, (2009) government-backed guarantee for	Yes, 1) (early 2000s) the implicit and explicit

	UK	Denmark [0]	Germany	Netherlands	USA [0]
			January 2006; so-called Riester-subsidy replaced it; repayment of the mortgage loan for the housing property will deliver an annual Riester subsidy, also to be used for the repayment of the loan [14]	house prices up to a certain level available; allows for lower-than-market interest rate of up to 0.5%-point; also only for mortgagors with guarantee first-time buyer's income-dependent loans available which offer neither interest payments nor repayments for the first 3 years; depends on municipality [14]	subsidies flowing to government-sponsored enterprises could benefit homeowners; but effect is negligible 2) (2009) grants for buyers, income limited and price limited 2a) first-time homeowner credit 2b) repeat home buyer tax credit 2c) D.C. home buyer credit 3) (2009) tax exempt mortgage revenue bonds with which the home is financed (low-interest rate mortgages) [14]
Safety net subsidy	Yes, (2009) assistance for vulnerable households in mortgage difficulties [15]	No, (2009) [15]	No, (2009) [15]	Yes, (2009) for government-backed guarantees, there may be the guaranteed possibility of increasing the loan amount up to 9% when there are payment difficulties [15]	No, (2007) [15]

* A 0%-rate means that paid VAT in the production column can be reimbursed by government. In the case of an exemption, this is not possible and the amount of VAT paid will be included in the cost price.

UK notes

1) http://www.communities.gov.uk/documents/housing/xls/table-101.xls
2) No savings support schemes in the UK

3) HM Revenue and Customs: www.hmrc.gov.uk . 5% reduced rate applies for example to conversions of buildings into a flat or house, renovations of empty houses or flats, installing energy saving equipment and alterations for disabled people
4) HM Revenue and Customs: www.hmrc.gov.uk
5) Haffner, et al., (2009) Purchase discounts related to length of tenancy for local authority tenants and some housing association tenants
6) Chote, et al., (2004)
7) Chote, et al., (2004)
8) Erlandsen, et al., (2006)
9) Chote, et al., (2004)
10) Chote, et al., (2004)
11) Adam, et al., (2009) Council tax does not apply in Northern Ireland where a different system of domestic rates applies
12) Adam and Browne (2009)
13) Haffner, et al., (2009)
14) No measures equivalent to that in other countries
15) Including assistance with mortgage interest for some unemployed and benefit dependent persons http://www.jobcentreplus.gov.uk/JCP/Customers/WorkingAgeBenefits/Dev_016128.xml.html and assistance under the mortgage rescue scheme http://www.housing.org.uk/default.aspx?tabid=1048

Denmark notes

0) Denmark also has a co-operative sector which together with employers' housing composes 11% of stock (2004; Erlandsen, et al., 2006). It is considered a form of indirect ownership. Co-operatives are exempted from income tax, capital gains tax and real estate tax, but not from land tax and rent regulation (subsidy to tenants). Furthermore no housing allowances are available, while a housing supplement in the public pension is available (loan and grant). Financing of new co-operative dwellings are subject to a municipal guarantee. Also personal communication from Jens Lunde (21 Nov 2009)
1) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
2) Existed in 1990 (Haffner, 1999); abolished since then (personal communication from Jens Lunde (21 Nov 2009)
3) Boelhouwer, et al., (2001); OECD (2008); Communication from Jens Lunde (21 Nov 09)
4) Boelhouwer, et al., (2001); Erlandsen et al (2006); personal communication from Jens Lunde (21 Nov 2009); it is not clear whether stamp duty also applies to newly-built dwellings
5) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
6) Haffner (2002); personal communication from Jens Lunde (21 Nov 2009)
7) Boelhouwer, et al., (2001); Haffner (2002); Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
8) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
9) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
10) OECD (2006); personal communication from Jens Lunde (21 Nov 2009)
11) Boelhouwer, et al., (2001); http://www.taxindenmark.com/article.31.html (6 Nov 2009); OECD (2006); http://www.deloitte.com/dtt/cda/doc/content/dtt_tax_highlight_2009_denmark.pdf (6 Nov 2009); the tax freeze implies that for each home the real estate tax is set at the nominal level it had in 2002 or in 2001 +5% as a maximum (2004); effective real estate tax amounts to 0.55% because of special reductions for dwellings bought before July 1998 and for pensioners, as well as the tax freeze; personal communication from Jens Lunde (21 Nov 2009)
12) Boelhouwer, et al., (2001); http://www.deloitte.com/dtt/cda/doc/content/dtt_tax_highlight_2009_denmark.pdf (6 Nov 09); personal communication from Jens Lunde (21 Nov 2009)
13) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
14) Boelhouwer, et al., (2001); Erlandsen et al. (2006); personal communication from Jens Lunde (21 Nov 2009)
15) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)

Germany notes

1) Haffner, et al., (2009)

2) http://www.bausparkassen.de/index.php?id=wohnungsbaupraemie (17 Nov 2009); http://www.bausparkassen.de/index.php?id=arbeitnehmersparzulage (17 Nov 2009); general annual government subsidy on savings will only be given if savings are used for the acquisition of owner-occupied or co-operative housing; employee annual subsidy also available; both are income limited, but different limits (higher for general grant); for co-operative housing see Table B3
3) Wolswijk (2008) based on IBFD (2007); OECD (2008); no information found on whether repairs are also exempted
4) Empirica (2006); http://www.baulinks.de/webplugin/2009/1frame.htm?0346.php4 (6 Nov 09)
5) No information found
6) Wolswijk (2008) based on IBFD (2007); ECB (2009) based on IBDF (2007); nothing found that the situation has changed since 2007
7) Wolswijk (2008) based on IBFD (2007); ECB (2009) based on IBDF (2007); Haffner (2002)
8) Haffner (2002); consumption good approach since 1996; nothing found that the situation has changed recently
9) See note 14
10) Wolswijk (2008) based on IBFD (2007); ECB (2009) based on IBDF (2007)
11) http://www.handelsblatt.com/politik/deutschland/bundeslaender-wollen-grundsteuer-reformieren;1074689 (17 Nov 2009); ECB (2003); http://www.immopro24.eu/pressemitteilungen/erlass-der-grundsteuer-fuer-vermieter-bei-ertragsausfaellen-moeglich-antraege-muessen-bis-zum-31-maerz-2009-eingereicht-werden_17420.html (17 Nov 2009); Boelhouwer, et al., (2001)
12) Boelhouwer, et al., (2001)
13) http://www.bmvbs.de/wohngeld (17 Nov 2009)
14) The so-called Riester pension (Riester Rente) is a voluntary private pension system based on private savings and government subsidies. The Riester pension allows oneto savetax free for a pension, up to a certain income limit. Since 1 January 2008 the acquisition of owner-occupied and co-operative housing based on the Riester pension can also be subsidised. Repayments on certified mortgage loans to acquire housing property can be subsidised as well with an annual subsidy. Both amounts are counted as savings into a fictitious Riester pension account. Tax payment on this account is deferred until the 'official date' of usage has passed, e.g. pension age. It is also possible to use funds originally saved for the Riester pension to acquire housing property for own usage; Bundesregierung (2009); http://www.bundesfinanzministerium.de/nn_53530/DE/Buergerinnen__und__Buerger/Alter__und__ Vorsorge/Altersvorsorge/002__Eigenheimrente.html?__nnn=true (17 Nov 2009); http://www.bundesfinanzministerium.de/nn_54/DE/Buergerinnen__und__Buerger/Alter__und__Vorsorge/040__Wohnriester__bsp.html?__nnn=true (17 Nov 2009)
15) No information found

Netherlands notes

1) Haffner, et al., (2009)
2) The Netherlands has no savings schemes for housing
3) http://www.belastingdienst.nl/zakelijk/omzet_btw_winst.html (4 Nov 2009)
4) http://www.belastingdienst.nl/variabel/overdrachtsbelasting/overdrachtsbelasting-09.html#P69_4911 (4 Nov 2009)
5) There are no longer one-off premiums available to home buyers
6) http://www.belastingdienst.nl/particulier/alsueenwoningkoopt/alsueenwoningkoopt-24.html#P388_27970 (4 Nov 2009); http://www.belastingdienst.nl/particulier/alsueenwoningkoopt/ alsueenwoningkoopt-25.html#P393_29014 (4 Nov 2009)
7) http://www.belastingdienst.nl/particulier/aangifte2008/werk_woning/werk_woning-64.html (4 Nov 09); http://www.belastingdienst.nl (12 Nov 2009) http://www.belastingdienst.nl/particulier/alsueenwoningkoopt/alsueenwoningkoopt-02.html#P21_1390 (4 Nov 2009)
8) Haffner (2002); traditionally it was a calculation of net imputed rent as the difference between gross imputed rent and imputed costs; it changed to a system where annually the imputed rent percentage is adapted in line with rent increases, corrected for house price changes http://www.belastingdienst.nl/ particulier/alsueenwoningkoopt/alsueenwoningkoopt-05.html#P39_3521 (4 Nov 2009)
9) http://www.belastingdienst.nl/particulier/woning.html (4 Nov 2009)

10) Wolswijk (2008) based on IBFD (2007); ECB (2009) based on IBDF (2007); Van Eijck (2005)
11) http://www.postbus51.nl/nl/home/themas/overheid-en-democratie/organisatie-van-de-overheid/gemeenten/gemeentelijke-belastingen/wat-is-de-onroerendezaakbelasting-ozb.html (4 Nov 09);); http://www.coelo.nl/ (19 Nov 2009)
12) The Netherlands no longer has a wealth tax (Haffner, 1999)
13) http://www.koophuissubsidie.nl (4 Nov 2009); http://www.nhg.nl/consument/starterslening-en-eigenwoningbijdrage-koopsubsidie.html?tx_dynamic_pi1%5BsearchFaq%5D=koopsubsidieandno_cache=1#koopsubsidie (4 Nov 2009)
14) http://www.nhg.nl/geldverstrekker-intermediair/faqs.html?no_cache=1 (4 Nov 2009); http://www.rabobank.nl/particulieren/advies/wonen/nationale_hypotheek_garantie/default?cam=wonen_voorjaar_2008andadword=Nhg.google (16 Nov 2009); http://www.postbus51.nl/nl/home/themas/wonen-en-leefomgeving/woning-kopen-en-verkopen/koopsubsidie-starterslening-en-nationale-hypotheek-garantie-nhg/wat-is-een-starterslening.html (4 Nov 2009)
15) http://www.nhg.nl/consument/betalingsproblemen.html#c265 (4 Nov 2009)

USA notes

0) In the USA many initiatives classified as shared equity homeownership are taking place http://www.nhi.org/research/522/shared_equity_homeownership/ (19 Nov 2009); shared equity schemes aim to create affordable housing with community-based support by restricting the home value appreciation that flows to the homeowner on resale. Usually the return will consist of return linked to consumer price index or the increase in household incomes. Shared homeownership can be realized in various schemes, e.g. community land trusts, limited equity co-operatives and shared equity condominiums
1) http://www.census.gov/hhes/www/housing/hvs/annual05/ann05t12.html (18 Nov 2009)
2) No information found
3) OECD (2007); no information found whether there is a sales tax on repairs
4) OECD (2007); http://www.taxadmin.org/fta/rate/B-0306.pdf (19 Nov 2009); a real estate transfer tax is a tax assessed on real property when ownership of the property is transferred from one party to another. In some federal states the tax is also assessed on long-term leases. The tax is typically a certain percentage of the value of the property. Thirty-seven states and the District of Columbia currently provide for this tax. The state statutes may or may not stipulate who (buyer or seller) is responsible for paying the tax. In addition, most statutes list a number of cases where the transfer is exempt from taxation (http://www.highersgrouprealty.com/news/real-estate-transfer-taxes, 19 Nov 2009)
5) No information found
6) Wolswijk (2008) based on IBFD (2007); OECD (2007)
7) Wolswijk (2008) based on IBFD (2007); OECD (2007); households in the lower tax brackets usually do not itemise their deductions, but take a so-called standard deduction. They thus do not feel the effects of the tax deduction connected to housing (OECD, 2007)
8) OECD (2007); households in the lower tax brackets usually do not itemise their deductions, but take a so-called standard deduction. They thus do not feel the effects of the tax deduction connected to housing (OECD, 2007); Urban-Brookings Tax Policy Center (2005)
9) No information found
10) Wolswijk (2008) based on IBFD (2007); OECD (2006); OECD (2007)
11) OECD (2007); the local assessment procedures are relatively poor so that the assessment value doe not accurately reflect the value of the properties (Bourassa and Grigsby, 2000). Improvement of these procedures have begun
12) http://www.irs.gov (19 Nov 2009); no information found
13) http://www.huduser.org/publications/hsgfin/msd_vol1_vol2.html (19 Nov 2009)
14) Benefits, however flow more to others, e.g. shareholders of Fannie Mae and Freddie Mac, than to the homeowners (OECD, 2007; see also Haffner, 2008); http://www.federalhousingtaxcredit.com/ glance.php (19 Nov 2009); the first-time home-buyer tax credit has existed before, in diverse forms; usually as interest-free loan http://www.taxpolicycenter.org/UploadedPDF/411827_stimulus_reportcard.pdf (18 Nov 2009); because of crisis policies, the tax credit does not have to be repaid unless the home is sold or ceases to be used as the buyer's principal residence within three years after the initial purchase. The repeat home buyer tax credit (also non-repayable) has also been introduced as a response to the global financial crisis. These tax credits apply in the present form to sales occurring on or after January 1, 2009 and on or before April 30, 2010. However, in

cases where a binding sales contract is signed by April 30, 2010, a home purchase completed by June 30, 2010 will also qualify

15) No information found, but there may be temporary safety net provisions as a response to the effects of the global financial crisis

Table B2 Taxes and subsidies for social rental landlords

	UK	Denmark	Germany [0]	Netherlands	USA [0]
Market share	18% (2007) [1]	20% (2004) [1]	7% (2003) estimated, at the most, as subsidy scheme is temporary [1]	33% (2006) [1]	2% (early 2000s) [1]
Acquisition					
VAT on new construction and repairs*	Yes, (2010) but 0% on new construction; 17.5% on repairs; 5% for some conversions, renovations and installations [2]	No, (2007) exemption for new construction yes, 25% on repairs [2]	No, (2007) exemption for new construction presumably yes, 19% on repairs [2]	Yes, (2009) 19% on new construction and repairs [2]	Not applicable, (2007) also no sales tax on the value of properties [2]
Transaction tax for existing dwelling for buyer	Yes, (2009) Stamp Duty Land Tax with thresholds and bands but some exemptions for social landlords Registered Social Housing Associations and have exemptions under certain conditions as do housing associations that benefit from their charitable status [3]	Yes, (2009) stamp duty of 0.6% of acquisition price or 1.2% of last known assessed value (2000) [3] registration of the transfer of certain assets is subject to stamp duty of 0.1% to 1.5% + DKK 1400 (2009) [3]	Yes, (2009) 3.5% land acquisition tax without threshold and bands; also for newly-built dwelling (double taxation with VAT) [3]	Yes, (2009) 6% transfer tax without threshold and bands [3]	Yes, (2009) in some states, real estate transfer tax, with some exemptions; rates are between 0.01 and 2.2% [3]
One-off subsidy for buyer/land-lord	Yes, (2009) possibility of acquiring land cheaply [4]	No, (2009) [4]	No, (2009) [4]	No, (2009) [4]	No, (2009) [4]
Period of occupation					
Corporate tax					The assumption is that public

	UK	Denmark	Germany [0]	Netherlands	USA [0]
					actors do pay neither corporate income tax nor capital gains tax
Rental income taxation	Yes, (2009) but depends on legal status [5]	No, (2009) exempted [5]	Yes, (2008) [5]	Yes, (2009) [5]	No, (2009) [5]
Mortgage interest deduction	Yes, (2009) [6]	Not applicable [6]	Yes, (2008) [6]	Yes, (2009) [6]	Not applicable [6]
Other cost deduction	Yes, (2009) [7]	Not applicable [7]	Yes, (2005/9) depreciation deduction (2009); renovation depreciation in the first year (2005) [7]	Yes, (2009) [7]	Not applicable [7]
Corporate tax subsidy	Yes, (2009) exemptions for some social landlords [8]	Yes, (2009) exempted [8]	Yes/no, (2005) other cost deductions can be considered subsidy [8]	Yes, (2009) temporary (from 1 June 2009 to 1 December 2010) extra deduction for energy investments in rental dwellings [8]	Not applicable [8]
Capital gains tax	No, (2009) but some gains could be liable to corporation tax [9]	Not applicable [9]	Yes, (2008) [9]	Yes, (2009) [9]	Not applicable [9]
Property, real estate or land tax	No, (2009) council tax liability is firstly with the occupier but can fall on the owner of a property [10]	Yes, (2009) land taxes as for other tenures (which can be recouped through rents) [10]	Yes, (2009) municipal land tax (Grundsteuer); paid for by owner; 0.3-1% of rateable values (2001) including the value of land and building; should be called real estate tax here [10]	Yes, (2009) local real estate tax, owner, on assessed market value, valued once a year; average is 0.0936% (corrected for differences between municipalities); minimum rate is 0.034%; maximum rate	Landlords pay property taxes (Table 3 (2009) [10]

	UK	Denmark	Germany [0]	Netherlands	USA [0]
				is 0.1787% [10]	
Non-fiscal subsidy for landlord	Yes, (2009) social housing grants and revenue support subsidies [11]	Yes, (2009) subsidised construction; public co-payment of mortgages (interest free loans from municipalities that do not have to be repaid for 50 years) [11]	Yes, (2008) bricks-and-mortar subsidy [11]	Yes, (2009) government-backed guarantee for house prices up to a certain level available [11]	Yes, (2003) Low Income Housing Tax Credit (LIHTC) is a dollar for dollar credit or offset for income taxes otherwise payable (10 years) [11]

* A 0%-rate means that paid VAT in the production column can be reimbursed by government. In the case of an exemption, this is not possible and the amount of VAT paid will be included in the cost price.

UK notes

1) http://www.communities.gov.uk/documents/housing/xls/table-101.xls
2) HM Revenue and Customs: www.hmrc.gov.uk . 5% (reduced rate applies for example to conversions of buildings into a flat or house, renovations of empty houses or flats, installing energy saving equipment and alterations for disabled people. Local authorities will generally be able to reclaim any VAT paid but RSLs will not: https://www.eversheds.com/uk/Home/Articles/index.page?ArticleID=templatedata%5CEversheds%5Carticles%5Cdata%5Cen%5CConstruction_And_Engineering%5CConstruction_Social_hsg_dev_VAT_issues
3) Reliefs from SDLT are available for RSLs. Registered Social Housing Associations have exemptions under certain conditions as do housing associations that benefit from their charitable status http://www.hmrc.gov.uk/manuals/sdltmanual/SDLTM27500.htm
4) Haffne,r et al., (2009)
5) Housing associations are subject to Corporation Tax but local authorities are not. The charitable status of some housing associations provides some exemptions. Where applicable it applies to taxable profits which allows for deductions of allowable costs. HM Revenue and Customs: www.hmrc.gov.uk
6) See 5
7) See 5
8) See 5
9) See 5
9) Gains from property trading can add to taxable profits, see 5. But housing associations can be exempt from capital gains, http://www.hmrc.gov.uk/MANUALS/cg4manual/CG73100.htm. Charities do not pay capital gains tax, and this will benefit some housing associations http://www.voa.gov.uk/instructions/chapters/_mmtmp-customer-service-manual/sect5/frame.htm
10) HM Revenue and Customs: www.hmrc.gov.uk
11) Haffner, et al., (2009)

Denmark notes

1) Erlandsen, et al., (2006)
2) OECD (2008); personal communication from Jens Lunde (21 Nov 2009)
3) Boelhouwer, et al., (2001); OECD (2008 personal communication from Jens Lunde (21 Nov 2009)
4) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
5) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
6) Erlandsen, et al., (2006); not applicable also because social landlords do not raise loans to finance the property (personal communication from Jens Lunde 21 Nov 2009)
7) Erlandsen, et al., (2006)

8) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
9) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
10) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
11) Erlandsen, et al., (2006); 10.2% of GNP (2005) of total housing subsidies for bricks-and-mortar subsidies for social and co-operative housing; beside the mentioned subsidies, there are a lot of subsidies in this tenure connected with a maximum capital cost payment in the rent, where the state pays the difference between the tenants payments and the cost of the loans. However, the system contains a lot more rules and is much more complex (personal communication from Jens Lunde, 21 Nov 2009)

Germany notes

0) Social means subsidised rental dwellings, could be owned be any (also private or commercial) landlord. There is no difference with tax treatment of private landlord. Bricks-and-mortar subsidy is available, however
1) Haffner,et al., (2009)
2) OECD (2008); no information found whether repairs are also exempted
3) Empirica (2006); http://www.baulinks.de/webplugin/2009/1frame.htm?0346.php4 (6 Nov 2009)
4) No information found
5) Haffner, et al., (2009)
6) Haffner, et al., (2009)
7) Haffner, et al., (2009); degressive fiscal depreciation abolished for new cases as of 30 December 2005; http://www.bundesfinanzministerium.de/nn_53848/DE/BMF__Startseite/Service/Downloads/Abt__I/0811211a5002,property=publicationFile.pdf (18 Nov 2009)); linear depreciation of 2% per year standard available (http://www.wiso-sparbuch.de/steuerwiki/index.php/Degressive_Abschreibung_bei_Wohngeb%C3%A4uden (17 Nov 2009)); it is not clear whether the depreciation of renovation costs in the first year still exists; see note 8
8) Haffner, et al., (2009); http://www.wiso-sparbuch.de/steuerwiki/index.php/Degressive_Abschreibung_bei_Wohngeb%C3%A4uden (17 Nov 2009); if the fiscal depreciation is higher than the commercial depreciation, there is subsidisation of landlords. According to Voigtländer (2006) this was no longer the case; see note 7
9) Haffner, et al., (2009)
10) http://www.handelsblatt.com/politik/deutschland/bundeslaender-wollen-grundsteuer-reformieren;1074689 (17 Nov 2009); ECB (2003); http://www.immopro24.eu/pressemitteilungen/erlass-der-grundsteuer-fuer-vermieter-bei-ertragsausfaellen-moeglich-antraege-muessen-bis-zum-31-maerz-2009-eingereicht-werden_17420.html (17 Nov 2009)
11) Haffner, et al., (2009)

Netherlands notes

1) Haffner, et al., (2009)
2) http://www.belastingdienst.nl/zakelijk/omzet_btw_winst.html (4 Nov 2009)
3) http://www.belastingdienst.nl/variabel/overdrachtsbelasting/overdrachtsbelasting-09.html#P69_4911 (4 Nov 2009)
4) One-off subsidy for buyer/landlord: no
5) http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting-20.html#P217_13951 (16 Nov 2009); corporate tax on taxable profits; http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting.html#P4_0 (16 Nov 2009); http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs; http://www.aedesnet.nl/nieuws,2007/09/rijksbegroting/Integrale-VpB-plicht-voor-corporaties.html (16 Nov 2009)
6) http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs
7) http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs

8) http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting-09.html#P114_7778 (16 Nov 2009)
9) http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues (including capital gains) minus costs
10) http://www.postbus51.nl/nl/home/themas/overheid-en-democratie/organisatie-van-de-overheid/gemeenten/gemeentelijke-belastingen/wat-is-de-onroerendezaakbelasting-ozb.html (4 Nov 2009); http://www.coelo.nl/ (19 Nov 2009)
11) http://www.wsw.nl/corporaties (16 Nov 2009)

USA notes

0) Social rent is public housing in the USA (http://www.hud.gov/offices/pih/programs/ph/index.cfm, 19 Nov 2009)
1) Kemp (2007a)
2) OECD (2007); no information found whether there is a sales tax on repairs
3) OECD (2007); http://www.taxadmin.org/fta/rate/B-0306.pdf (19 Nov 2009); a real estate transfer tax is a tax assessed on real property when ownership of the property is transferred from one party to another. In some federal states the tax is also assessed on long-term leases. The tax is typically a certain percentage of the value of the property. Thirty-seven states and the District of Columbia currently provide for this tax. The state statutes may or may not stipulate who (buyer or seller) is responsible for paying the tax. In addition, most statutes list a number of cases where the transfer is exempt from taxation (http://www.highersgrouprealty.com/news/real-estate-transfer-taxes, 19 Nov 2009)
4) No information found
5) No information found
6) No information found
7) No information found
8) No information found
9) No information found
10) No information found
11) Oxley (2004); tax credit can be can be sold to an investor in exchange for a lump-sum capital contribution to the affordable housing project; contrary to the rest of the table this is an instrument not aimed at creating new public housing, but for affordable housing by private developers

Table B3 Taxes and subsidies for private rental landlords

	UK	Denmark [0]	Germany [0]	Netherlands	USA
Market share	12% (2007) [1]	17% (2004) [1]	54% (2003) [1]	11% (2006) [1]	30% (early 2000s) [1]
Acquisition					
VAT on new construction and repairs[x]	Yes, (2010) but 0% on new construction; 17.5% on repairs; 5% for some conversions, renovations and installations [2]	No, (2007) exemption for new construction yes, 25% on repairs [2]	No, (2007) exemption for new construction presumably yes, 19% on repairs [2]	Yes, (2009) 19% on new construction and repairs [2]	Not applicable, (2007) also no sales tax on the value of properties [2]
Transaction tax for existing dwelling for buyer	Yes, (2010) Stamp Duty Land Tax with thresholds and bands; 1% to 4%; some exemptions in disadvantaged areas and temporary reductions in Dec 2008 to Dec 2009 [3]	Yes, (2009) stamp duty of 0.6% of acquisition price or 1.2% of last known assessed value (2000) [3] registration of the transfer of certain assets is subject to stamp duty of 0.1% to 1.5% + DKK 1400 [3]	Yes, (2009) 3.5% land acquisition tax without threshold and bands; also for newly-built dwelling (double taxation with VAT) [3]	Yes, (2009) 6% transfer tax without threshold and bands [3]	No, (early 2000s) stamp duty not applicable yes, (2009) a state real estate transfer tax may be due; rates are between 0.01 and 2.2% [3]
One-off subsidy for buyer/land-lord	No, (2009) [4]	No, (2004) [4]	No, (2009) [4]	No, (2009) [4]	No, (2009) [4]
Period of occupation					
Corporate tax	Yes, (2009) if the landlord is a company liable for corporation tax (rather than an individual) [5]	Yes, (2009) tax is imposed on a company's profits, which consist of business/trading income, passive income and capital gains [5]; surplus is taxed at 28% (see [6-8, 9,10])	Yes, (2009) all relevant costs are deductible from rent income [5] (see [6-8, 9,10]); same systematic for companies and individuals	Yes, (2009) taxable profits are taxed except for institutional investors (e.g. pension funds) which do not pay corporate tax; in income tax, same systematic for individuals running a	Yes, (2007) landlord pays taxes on the rental income net of expenses [5] (see [6-8, 9,10])

	UK	Denmark [0]	Germany [0]	Netherlands	USA
				company and a different systematic for individuals investing in dwellings: imputed return of 4% is taxed with a proportional rate of 30%: market value minus debt times 1.2% (=4% times 30%) [5]	
Rental income taxation	Yes, (2009) [6]	Yes, (2009) [6]	Yes, (2008) [6]	Yes, (2009) [6]	Yes, (2007) [6]
Mortgage interest deduction	Yes, (2009) [7]	Yes, (2009) [7]	Yes, (2006) [7]	Yes, (2009) [7]	Yes, (2007) [7]
Other cost deduction	Yes, (2009) [8]	Yes, (2009) other operating costs deductible [8]	Yes, (2005) depreciation deduction; renovation depreciation in the first year [8]	Yes, (2009) [8]	Yes, (2007) [8]
Corporate tax subsidy	No, (2009) [9]	No, (2009) not specially for housing; pension funds and insurance companies pay lower taxes on surplus, also on property investments (15%) [9]	Yes/no, (2005) other cost deductions can be considered subsidy [9]	Yes, (2009) temporary (from 1 June 2009 to 1 December 2010) extra deduction for energy investments in rental dwellings [9]	Yes, (2009) exception from passive loss rules for $25000 of rental loss [9]
Capital gains tax	Yes, (2009) [10]	Yes, (2009) standard lower rate of 15% for pension funds and insurance companies (see [9]) [10]	Yes, (2008) [10]	Yes, (2009) local real estate tax, owner, on assessed market value, valued once a year [10]	Yes, (2007) [10]
Property, real estate or land tax	No, (2009) council tax liability is firstly with the occupier but can fall on the owner of a	Yes, (2009) land tax as for other tenures [11]	Yes, (2009) municipal land tax (Grundsteuer); paid for by owner; 0.3-1% of rateable	Yes, (2009) local real estate tax, owner, on assessed market value, valued once a	Yes, (2009) [11]

	UK	Denmark [0]	Germany [0]	Netherlands	USA
	property [11]		values (2001) including the value of land and building; should be called real estate tax here [11]	year; average is 0.0936% (corrected for differences between municipalities); minimum rate is 0.034%; maximum rate is 0.1787% [11]	
Non-fiscal subsidy for landlord	No (2009) [12]	No (2009) [12]	No, (2009) [12]	No, (2009) [12]	Yes, (2003) Low Income Housing Tax Credit (LIHTC) is a dollar for dollar credit or offset for income taxes otherwise payable (10 years) [12]

* A 0%-rate means that paid VAT in the production column can be reimbursed by government. In the case of an exemption, this is not possible and the amount of VAT paid will be included in the cost price.

UK notes

1) http://www.communities.gov.uk/documents/housing/xls/table-101.xls
2) HM Revenue and Customs: www.hmrc.gov.uk . 5% (reduced rate applies for example to conversions of buildings into a flat or house, renovations of empty houses or flats, installing energy saving equipment and alterations for disabled people
3) HM Revenue and Customs: www.hmrc.gov.uk
4) No one off subsidies, other than in some circumstances for energy efficiency improvements
5) Where applicable Corporation Tax applies to taxable profits which allows for deductions of allowable costs. HM Revenue and Customs: www.hmrc.gov.uk
6) HM HM Revenue and Customs: www.hmrc.gov.uk
7) Revenue and Customs: www.hmrc.gov.uk
8) HM Revenue and Customs: www.hmrc.gov.uk
9) HM Revenue and Customs: www.hmrc.gov.uk
10) HM Revenue and Customs: www.hmrc.gov.uk
11) HM Revenue and Customs: www.hmrc.gov.uk
12) Technically there is a payment responsibility hierarchy for council tax with the possibility of the owner being liable http://www.hmrc.gov.uk/manuals/ihtmanual/IHTM28192.htm

Denmark notes

0) Presumably, company and private person landlords are treated the same (taxation of surplus/profit), with different tax rates for income tax and corporate tax
1) Erlandsen, 2009
2) OECD (2008); personal communication from Jens Lunde (21 Nov 2009)
3) Boelhouwer, et al., (2001); Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
4) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
5) http://www.deloitte.com/dtt/cda/doc/content/dtt_tax_highlight_2009_denmark.pdf (6 Nov 2009); personal communication from Jens Lunde (21 Nov 2009)
6) http://www.deloitte.com/dtt/cda/doc/content/dtt_tax_highlight_2009_denmark.pdf (6 Nov 2009); personal communication from Jens Lunde (21 Nov 2009)
7) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)

8) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
9) http://www.deloitte.com/dtt/cda/doc/content/dtt_tax_highlight_2009_denmark.pdf (6 Nov 2009); personal communication from Jens Lunde (21 Nov 2009)
10) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
11) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)
12) Erlandsen, et al., (2006); personal communication from Jens Lunde (21 Nov 2009)

Germany notes

0) Co-operative rental housing is considered a form of rental housing with a non-profit fiscal status; if co-operatives are 'inactive' (Haffner, et al., 2009; Expertenkommission Wohnungsgenossenschaften, 2004). Households generally have to buy equity (1%) to become a member of the cooperative. Most co-operatives are rental co-operatives (see also note 6)
1) Haffner, et al., (2009)
2) OECD (2008); no information found that repairs are also exempted
3) Empirica (2006); http://www.baulinks.de/webplugin/2009/1frame.htm?0346.php4 (6 Nov 2009)
4) No information found
5) Haffner, et al., (2009)
6) Haffner, et al., (2009); a little over two-thirds of the cooperatives are exempt from corporation tax. They are not permitted to engage to any substantial extent in activities other than letting. This special tax status is a remnant of the special status that also applied to other non-profit landlords until 1990
7) Haffner, et al,. (2009)
8) Haffner, et al,. (2009); degressive fiscal depreciation abolished for new cases as of 30 December 2005; http://www.bundesfinanzministerium.de/nn_53848/DE/BMF__Startseite/Service/Downloads/Abt__I/0811211a5002,property=publicationFile.pdf (18 Nov 2009); linear depreciation of 2% per year standard available (http://www.wiso-sparbuch.de/steuerwiki/index.php/Degressive_Abschreibung_bei_Wohngeb%C3%A4uden (17 Nov 2009)); it is not clear whether the depreciation of renovation costs in the first year still exists; see note 9
9) Haffner, et al., (2009); http://www.wiso-sparbuch.de/steuerwiki/index.php/Degressive_Abschreibung_bei_Wohngeb%C3%A4uden (17 Nov 2009); if the fiscal depreciation is higher than the commercial depreciation, there is subsidisation of landlords. According to Voigtländer (2006) this was no longer the case; see note 8
10) Haffner, et al., (2009)
11) http://www.handelsblatt.com/politik/deutschland/bundeslaender-wollen-grundsteuer-reformieren;1074689 (17 Nov 2009); ECB (2003); http://www.immopro24.eu/pressemitteilungen/erlass-der-grundsteuer-fuer-vermieter-bei-ertragsausfaellen-moeglich-antraege-muessen-bis-zum-31-maerz-2009-eingereicht-werden_17420.html (17 Nov 2009)
12) No information found

Netherlands notes

1) Haffner, et al., (2009)
2) http://www.belastingdienst.nl/zakelijk/omzet_btw_winst.html (4 Nov 2009)
3) http://www.belastingdienst.nl/variabel/overdrachtsbelasting/overdrachtsbelasting-09.html#P69_4911 (4 Nov 2009)
4) One-off subsidy for buyer/landlord: no
5) http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting-20.html#P217_13951 (16 Nov 2009); http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting.html#P4_0 (16 Nov 2009); http://www.aedesnet.nl/nieuws,2007/09/rijksbegroting/Integrale-VpB-plicht-voor-corporaties.html (16 Nov 2009); http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs; http://www.belastingdienst.nl/particulier/aangifte2008/sparen_beleggen/sparen_beleggen-06.html (17 Nov 2009); http://www.belastingdienst.nl/particulier/aangifte2008/boxen_tarieven/boxen_tarieven-01.html (17 Nov 2009)

6) http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting-20.html#P217_13951 (16 Nov 2009); http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting.html#P4_0 (16 Nov 2009); http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs
7) http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs
8) http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues minus costs
9) http://www.belastingdienst.nl/zakelijk/vennootschapsbelasting/vennootschapsbelasting-09.html#P114_7778 (16 Nov 2009)
10) http://www.bedrijfopzetten.nl/eigen-bedrijf/fiscale-winstberekening (16 Nov 2009); profit implies revenues (including capital gains) minus costs
11) http://www.postbus51.nl/nl/home/themas/overheid-en-democratie/organisatie-van-de-overheid/gemeenten/gemeentelijke-belastingen/wat-is-de-onroerendezaakbelasting-ozb.html (4 Nov 2009); http://www.coelo.nl/ (19 Nov 2009)
12) Subsidisation of private landlords: no

USA notes

1) Kemp (2007a)
2) OECD (2007); no information found whether there is a sales tax on repairs
3) OECD (2007); http://www.taxadmin.org/fta/rate/B-0306.pdf (19 Nov 2009); a real estate transfer tax is a tax assessed on real property when ownership of the property is transferred from one party to another. In some federal states the tax is also assessed on long-term leases. The tax is typically a certain percentage of the value of the property. Thirty-seven states and the District of Columbia currently provide for this tax. The state statutes may or may not stipulate who (buyer or seller) is responsible for paying the tax. In addition, most statutes list a number of cases where the transfer is exempt from taxation (http://www.highersgrouprealty.com/news/real-estate-transfer-taxes, 19 Nov 2009)
4) No information found
5) http://www.irs.gov/businesses/small/industries/article/0,,id=98895,00.html (19 Nov 2009); example given is for private person landlord, but is assumed to be true for corporate tax as well (OECD, 2007)
6) http://www.irs.gov/businesses/small/industries/article/0,,id=98895,00.html (19 Nov 2009); example given is for private person landlord, but is assumed to be true for corporate tax as well (OECD, 2007)
7) http://www.irs.gov/businesses/small/industries/article/0,,id=98895,00.html (19 Nov 2009); example given is for private person landlord, but is assumed to be true for corporate tax as well (OECD, 2007)
8) http://www.irs.gov/businesses/small/industries/article/0,,id=98895,00.html (19 Nov 2009); example given is for private person landlord, but is assumed to be true for corporate tax as well (OECD, 2007); no accelerated depreciation for rental real estate (http://www.irs.gov/publications/p527/ch02.html#en_US_publink100027331 (19 Nov 2009)
9) http://www.irs.gov/publications/p527/ch03.html#en_US_publink100027370 (19 Nov 2009); Urban-Brookings Tax Policy Center (2005); Bourassa and Grigsby (2000) state that this instrument (together with 4 others not aimed at owner-occupied housing (e.g. exclusion of interest on state and local debt for rental housing and tax credit of affordable housing (see Table 2) are quantitatively less important than the 4 types of tax expenditures identified for homeownership (see Table 1)
10) http://www.irs.gov/businesses/small/industries/article/0,,id=98895,00.html (19 Nov 2009); example given is for private person landlord, but is assumed to be true for corporate tax as well (OECD, 2007)
11) http://www.brighthub.com/money/personal-finance/articles/50020.aspx (19 Nov 2009)
12) Oxley (2004); tax credit can be can be sold to an investor in exchange for a lump-sum capital contribution to the affordable housing project; this is an instrument aimed at creating new affordable housing by private developers

Table B4 Taxes and subsidies for tenants

	UK	Denmark	Germany [0]	Netherlands [0]	USA
Market share	30% (2007) [1]	37% (2004) [1]	61% (2003) [1]	44% (2006) [1]	32% (early 2000s) [1]
Property tax	Yes, (2009) council tax [2]	No, (2004) [2]	No, (2009) [2]	No, (2009) [2]	No, (2009) [2]
Rent control (below market rents)					
Initial rents social sector	Yes, (2009) [3]	Yes, (2009) rent is set equal to costs (balance principle) [3]	Yes, (2008) based on negotiations between subsidy giver and landlord [3]	Yes, (2008) 95% of rental sector; maximum rent based on quality points system [3]	Yes, (2009) income-related rents [3]
Rent changes social sector	Yes, (2009) [3]	Yes, (2009) based on costs [3]	Yes, (2008) for sitting tenants [3]	Yes, (2008) 95% of rental sector [3]	Yes, (2009) income-related rents [3]
Initial rents private sector	No, (2009) [4]	Yes, (2009) only for private rental properties taken in use after 1991 rents can be set freely; for other buildings rents can be increased closer to market clearing levels when the landlord undertakes major improvements [4]	No, (2008) [4]	Yes, (2008) 95% of rental sector; maximum rent based on quality points system [4]	Possibly yes, (2008) depending on municipality [4]
Rent changes private sector	No, (2009) [4]	Yes, (2009) for rents following the rent regulation, the rent cannot be changed, unless some well defined cost elements have been increased;	Yes, (2008) for sitting tenants based on reference rents [4]	Yes, (2008) 95% of rental sector, based on political decision [4]	Yes, (2008) [4]

	UK	Denmark	Germany [0]	Netherlands [0]	USA
		only for private rental properties taken in use after 1991 either based on an agreement about stepwise increases of rent level or according to a general price index [4]			
VAT-exemption on letting of immovable property	Yes, (2007) [5]	Yes, (2007) [5]	Yes, (2007) [5]	Yes, (2007) [5]	Not applicable, (2007) the USA has sales tax per state [5]
Subsidisation by landlord (not rent pooling, but intention to subsidise)	No, (2009) [6]	No, (2004) [6]	No, (2008) [6]	Yes, (2008) extra rent deduction by social landlords who are to pay for them from own equity (revolving fund) [6]	No, (2009) [6]
Housing allowances for tenant	Yes, (2006) entitlement, slight differences between schemes for social (actual rent subsidised) and private tenants (norm rent subsidised) [7]	Yes, (2009) [7]	Yes, (2008) entitlement [7]	Yes, (2008) entitlement [7]	Yes, (2006) budgeted program for tenants to move to good-quality private renting [7]
Other subsidy for tenant	No, (2009) [8]	No, (2009) [8]	No, (2009) [8]	No, (2009) [8]	No, (2009) [8]

UK notes

1) http://www.communities.gov.uk/documents/housing/xls/table-101.xls
2) Haffner, et al., (2009)
3) Haffner, et al,. (2009)
4) Haffner, et al., (2009)
5) OECD (2008)
6) Haffner, et al., (2009)
7) Kemp (2007b)
8) Generally no. But assistance available for paying Council Tax for low income households through Council Tax Benefit, Adam, et al., 2009.

Denmark notes

1) Erlandsen, et al,. (2006)
2) Erlandsen, et al., (2006); Communication by Jens Lunde (21 Nov 2009)
3) Erlandsen, et al., (2006): in 1994, the regulations for rent control were modified with an increase in the maintenance charge to offset the accumulated backlog of repairs on old rental property; since 2004 landlords have been allowed to charge market rent on new roof-top apartments in rented housing buildings that otherwise are subject to rent control; due to the maximal capital cost at now 2.8% instead of a market based capital cost, this contains a subsidy (personal communication from Jens Lunde, 21 Nov 2009); annually, the capital cost is inflated with ¾ of the inflation rate
4) Erlandsen, et al., (2006); the rent setting has to respect a rule on "the value of the rented unit", i.e. a comparison to similar private rental dwellings (personal communication from Jens Lunde, 21 Nov 2009)
5) OECD (2008)
6) Erlandsen, et al., (2006); not mentioned
7) normal housing allowance and housing supplement (allowance) in public pension (Erlandsen, et al., 2006); personal communication from Jens Lunde (21 Nov 2009)
8) Erlandsen,et al., (2006)

Germany notes

0) Social means subsidised
1) Haffner, et al., (2009)
2) Paid by owner; http://www.handelsblatt.com/politik/deutschland/bundeslaender-wollen-grundsteuer-reformieren;1074689 (17 Nov 2009); ECB (2003); http://www.immopro24.eu/pressemitteilungen/erlass-der-grundsteuer-fuer-vermieter-bei-ertragsausfaellen-moeglich-antraege-muessen-bis-zum-31-maerz-2009-eingereicht-werden_17420.html (17 Nov 2009); Boelhouwer, et al., (2001)
3) Haffner, et al., (2009)
4) Haffner, et al., (2009)
5) OECD (2008)
6) Haffner, et al., (2009)
7) Haffner, et al., (2009)
8) No information found

Netherlands notes

0) 95% of rents in the rental sector are regulated (Haffner, et al., 2009); regulated/deregulated rents is a different classification from private versus social renting
1) Haffner, et al., (2009)
2) Haffner, et al., (2009)
3) Haffner, et al., (2009)
4) Haffner, et al., (2009)
5) OECD (2008)
6) Haffner, et al., (2009)
7) Haffner, et al., (2009)
8) No information found

USA notes

1) Kemp (2007a)
2) Only for owners; see tables B1 and B3

3) http://www.hud.gov/renting/phprog.cfm (19 Nov 2009)
4) Jenkins (2009); as of 2001 about 140 jurisdictions in the United States regulated rents; in New York so-called rent-stabilised tenants are protected from sharp increases in rent and have the right to renew their leases. The Rent Guidelines Board sets the allowable percentage increase for renewal leases (http://www.housingnyc.com/html/resources/faq/rentstab.html, 19 Nov 2009); it is not clear if rents for new contracts are also regulated
5) OECD (2007); Wolswijk (2008) based on IBFD (2007); it is not known whether state sales taxes are levied on the letting of immovable property
6) Rent control and rents set according to income are mentioned separately
7) Newman (2007)
8) No information found

Table B5 Tenure neutrality in taxation (yes/no) for owner-occupier and private person landlord

	UK	Denmark [0]	Germany	Netherlands [0]	USA
Acquisition					
VAT on new construction	Yes, 0%-rate	Yes, exempted	Yes, exempted	Yes, 19%	Yes, not applicable
Transaction taxes for existing dwelling for buyer	Yes	Yes	Yes	Yes	Yes, in some states the tax is paid by the seller
Period of occupation					
Income/ corporate tax (different tax rates are assumed to be tenure neutral)	No, advantage for owner-occupier, no imputed rental income tax for owner occupier	No, advantage for owner-occupier (no imputed rent taxation; mortgage interest deduction); exemption for cooperative occupier and social renting [1]	No, owner-occupied dwelling as consumption good; rental dwelling as investment good; subsidy for rental dwelling because of depreciation deduction [1]	No, advantage for homeowner	No, advantage for homeowner [1,3,4]
Capital gains tax	No, advantage for owner-occupier, no capital gains tax	No, advantage for owner-occupation, cooperatives and social renting over private renting	No, advantage for homeowner; unless holding period is shorter than 10 years;	No, advantage for homeowner; no capital gains tax for homeowner	No, advantage for homeowner; no capital gains tax under conditions which often are met [2,3]
Property, real estate and land tax	No, landlord less likely to pay council tax	Yes, for land tax no, owner-occupier is only one who pays real estate tax	Yes	Yes	Yes
Wealth tax	Yes, not applicable	Yes, not applicable	Yes, not applicable	Yes, not applicable	Yes, not applicable

Notes and sources: see mainly earlier tables.

Denmark notes

1) Total housing subsidies amount to 2.7% of GDP (2005), 0.7% housing allowances, 0.4% direct subsidies and 1.5% tax revenues forgone ((Erlandsen, et al., 2006). In 2005 (also including the subsidisation of urban renewal) 6200 DKK are going to the owner-occupier as subsidy, 8200 DKK to the private tenant, 10,400 DKK to the social tenant and 18,500 DKK to the co-operative occupier. Advantage through lower real estate tax for co-operative occupier (14,800 DKK per occupier) and owner-occupier (6200 DKK per occupier; 2005)
2) Taxation of surplus for private renting. If real estate tax is regarded as substitute for taxation of imputed rent, for owner-occupation an investment good approach is followed in the real estate tax combined with income tax. It is incomplete, however, as capital gains are exempted from taxation (Erlandsen, et al., 2006).

Germany notes

1) Degressive depreciation was abolished as of 2006; linear depreciation still available.

Netherlands notes

1) Total housing subsidies amount to more than 3000 Euro per owner-occupier (compared to tenure-neutral benchmark in income tax taking transfer tax and property tax into account) and more than 4000 Euro per tenant (based on an estimate of market rents, unprofitable investment by social landlords, housing allowances and taking property tax into account (Besseling, et al., 2008).

USA notes

1) Personal income tax expenditures amount to more than 1% expressed as percentage of GDP in 2008: 0.61% for the deductibility of mortgage interest on owner-occupied homes and 0.28% for the deductibility of state and local taxes (OECD, 2007). The percentage of more than 1% also includes the capital gains tax exclusion (see note 2).
2) Personal income tax expenditure for the capital gains exclusion of home sales amounts to 0.26% of GDP in 2008 (OECD, 2007).
3) Revenue loss estimates for the tax income expenditures for owner-occupied housing are 0.2% of GDP for the exclusion of net imputed rental income, 0.5% of GDP for the deductibility of mortgage interest, 0.2% of GDP for the deductibility of state and local property taxes and also 0.2% for the exclusion of capital gains on home sales (OECD, 2007).
4) Local real estate property taxes can be considered a kind of imputed rent taxation (OECD, 2007). With 3% of GDP (2005) it is comparatively high.

Table B6 Income, capital gains and wealth tax neutrality (yes/no) between owner-occupied housing and financial asset

	UK	Denmark	Germany	Netherlands	USA
Income tax	No, advantageous for owner-occupier	No, advantageous for owner-occupier [1]	Presumably no, as owner-occupied dwelling is treated as a consumption good	No, advantageous for owner-occupier [1]	Yes/no, may favour other investments if property taxes are higher than the national average [1]
Capital gains tax	No, advantageous for owner-occupier	No, advantageous for owner-occupier [2]	No, advantageous for owner-occupier [1]	Yes/No [2]	Yes/no [2]
Wealth tax	Yes, not applicable	Yes, not applicable	Yes, not applicable	Yes, not applicable	Yes, not applicable

Denmark notes

1) There is no taxation of imputed rental income of the owner-occupied dwelling. If, however, the real estate tax is taken as a replacement for imputed rent (as it actually was) and if the mortgage interest deduction is combined with the real estate tax, the effective real estate tax rate is estimated at 0.55%, whereas the neutral rate would be slightly more than 1.5% per year. Interest deductibility is assumed at 33% (2005; Erlandsen, et al., 2006)
2) Capital gains of financial assets are taxed as capital income at progressive rates (2005; Erlandsen, et al., 2006)

Germany notes

1) ECB (2009)

Netherlands notes

1) Financial assets (equity minus debt) are imputed a 4% return which is taxed with a 30% tax rate (www.belastingdienst.nl). The income tax treatment of financial assets is the same as that of private person landlords operating as investor (not running a firm). Thus investors generally pay tax (unless the loan is equal to the value of the asset), while home-owners 'pay' negative tax on their dwelling or nothing after the mortgage loan is repaid (treated as consumption good)
2) If the assumption is that the 4% return (see note 1) is the sum of imputed indirect plus direct return, there is an implicit capital gains tax on financial assets, which is not levied on owner-occupied dwellings.

USA notes

1) Such a calculation would be based on the taxation of net imputed income (= gross imputed rent plus any change in the value of the dwelling minus the costs to obtain the income) whereby the property taxes are taken as tax on imputed rent (OECD, 2007). Whether the deduction of mortgage interest and property taxes from federal income tax favours homeownership verses other investments depends on the level of property taxes. In municipalities where property taxes are higher than the national average, homeownership might not turn out to be favoured over other investments
2) The exemption of owner-occupied dwellings from capital gains tax in principle is a deviation from tax neutrality which favours investment in home-ownership over other investments. However, there exist favourable options for capital gains taxation for other investments (OECD, 2007)

Table B7 Neutrality (yes/no) between investment in new and existing stock[0]

	UK	Denmark	Germany	Netherlands	USA
VAT neutrality	No	No	No	Yes	??
VAT on new construction	No, 0%-rate	No, exempted [1]	No, exempted [1]	Yes	No, no sales tax
VAT on repairs	Yes	Yes	Yes	Yes	??
Transfer tax neutrality	Yes	??	Yes	No	No
Transfer tax on new construction	Yes	Presumably no	Yes	No	No
Transaction tax on purchase of dwelling	Yes, except some disadvantaged areas and temporary reductions	Yes	Yes	Yes	Yes, in some states
Neutrality					

1) Subsidies for new construction and repairs/renovation are excluded from this table
2) A VAT-exemption means that any VAT paid in earlier production stages cannot be retrieved and will thus be included in the cost price to the ‘final’ buyer

Table B8 Non-tax subsidies for owner, landlord or occupier

	UK	Denmark	Germany	Netherlands	USA
Savings scheme subsidy before acquisition	No	No	Yes	No	No
Acquisition					
One-off subsidy for buyer	Yes, discounts under right to buy	Yes	No	No	No
One-off subsidy for tenant	No	No	No	No	No
Period of occupation					
Recurrent non-fiscal subsidy for landlord	Yes, revenue subsidies for social landlords	Yes, private and social landlord	Yes, bricks-and-mortar subsidy available in principle for any landlord to provide subsidised rental dwellings	Yes, government-backed guarantee for loan for social landlord possible	Yes, Low Income Housing Tax Credit (LIHTC)
Rent regulation (= recurrent subsidy for tenant)	Yes, in social sector	Yes, differently organised per tenure	Yes, negotiations for subsidised dwellings, market reference rents for sitting tenants in non-subsidised dwelling	Yes, 95% of rental dwellings	Yes, income rents in public housing and regulation of rents of private dwellings in some jurisdictions
Housing allowances for occupier	Yes, for tenants	Yes, for tenants; partly for owner-occupiers (mainly as loan, only in public pension)	Yes, available in all tenures	Yes, for tenants; only possible for owner-occupiers with a mortgage guarantee	Yes, also for owner-occupier in some jurisdictions, not for tenants in public housing, in principle for tenant that moves to good quality private rental housing
Non-safety net recurrent subsidy for	No	No	Yes, via Riester pension	Yes, government-backed	Yes, grants for buyers

	UK	Denmark	Germany	Netherlands	USA
owner-occupier			scheme	guarantee for mortgage loan possible, possibly combined with first-time buyer's loan	
Safety net recurrent subsidy for owner-occupier	Yes, for vulnerable households in mortgage payment difficulties.	No	No	Yes, only possible for homeowners with mortgage loan guarantee	Possibly not standard available, but as a response to the effects of the global financial crisis

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JRF programme paper:
Housing Market Taskforce

Housing taxation and subsidies: international comparisons and the options for reform

Michael Oxley and Marietta Haffner

June 2010

This paper:
- examines the housing taxation and subsidy systems in Denmark, Germany, the Netherlands and the USA;
- makes some comparisons with the UK; and
- explores connections between these systems and housing market volatility, distribution and choice of tenure and investment

The Joseph Rowntree Foundation (JRF) commissioned this paper to contribute ideas for its Housing Market Taskforce, a two-year programme of work aiming to achieve long-term stability in the housing market for vulnerable households.

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