



OECD Economics Department Working Papers No. 950

# Tax Reform in Norway: A Focus on Capital Taxation

**Oliver Denk**

<https://dx.doi.org/10.1787/5k9bls0vdpd5d-en>

**Unclassified**

**ECO/WKP(2012)27**

Organisation de Coopération et de Développement Économiques  
Organisation for Economic Co-operation and Development

**03-Apr-2012**

**English - Or. English**

**ECONOMICS DEPARTMENT**

ECO/WKP(2012)27  
Unclassified

**TAX REFORM IN NORWAY: A FOCUS ON CAPITAL TAXATION**

**ECONOMICS DEPARTMENT WORKING PAPER No. 950**

**By Oliver Denk**

All Economics Department Working Papers are available through OECD's internet web site at  
[www.oecd.org/eco/workingpapers](http://www.oecd.org/eco/workingpapers)

**JT03319093**

Complete document available on OLIS in its original format

*This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.*

English - Or. English

## ABSTRACT/ RÉSUMÉ

### Tax reform in Norway: A focus on capital taxation

Norway's dual income tax system achieves high levels of revenue collection and income redistribution, without overly undermining economic performance and while paying attention to environmental externalities. It treats capital and labour income in different ways: capital income is taxed at a single low rate, while labour income is taxed at progressive rates. However, effective tax rates on savings vary widely across asset classes. The favourable treatment of owner-occupied housing relative to financial savings should be reduced, preferably by taxing imputed rents at the standard 28% statutory rate. The wealth tax implies very high effective tax rates on savings, indicating that it either gives rise to tax avoidance or significantly inhibits growth. The government should investigate the issue and, if the growth-equity trade-off is too unfavourable to growth, phase out or lower the wealth tax. To restrain tax avoidance by the wealthy, the base of the gift and inheritance tax should be broadened. Overall, the reform package recommended in this paper would improve the allocation of capital and increase work and investment incentives. It could be designed to be broadly neutral in regard to income redistribution and public revenue.

*JEL classification codes:* D9; H2; R21; R38.

*Keywords:* Norway; taxation; dual income tax system; capital taxation; owner-occupied housing; wealth tax; rate of return allowance; allowance for corporate equity.

This Working Paper relates to the 2012 OECD Economic Survey of Norway ([www.oecd.org/eco/surveys/norway](http://www.oecd.org/eco/surveys/norway)).

\*\*\*\*\*

### La réforme fiscale en Norvège : Privilégier l'imposition du capital

En Norvège, le système d'imposition duale atteint d'excellents résultats en termes de recouvrement des recettes et de redistribution du revenu, sans pénaliser excessivement la performance économique et en prenant en compte les externalités environnementales. Ce système n'applique pas le même traitement aux revenus du capital et du travail : le revenu du capital est soumis à un taux d'imposition unique faible, tandis que celui du travail est taxé à des taux progressifs. Toutefois, les taux d'imposition effectifs de l'épargne varient beaucoup d'une catégorie d'actifs à l'autre. Le traitement favorable des logements occupés par leurs propriétaires devrait être réduit, de préférence en taxant leur valeur locative imputée au taux légal normal de 28 %. L'impôt sur la fortune entraîne des taux d'imposition effectifs de l'épargne très élevés, qui ouvrent la voie à l'évasion fiscale ou qui entravent significativement la croissance. Le gouvernement doit se pencher sur cette question et, si l'arbitrage entre croissance et équité est par trop défavorable à la croissance, éliminer progressivement l'impôt sur la fortune ou réduire son taux. Afin de restreindre les possibilités d'évasion fiscale de la part des contribuables les plus aisés, il faudrait élargir la base de l'impôt sur les donations et les successions. Dans l'ensemble, les réformes recommandées dans ce document amélioreraient la répartition du capital et renforceraient les incitations à travailler et à investir. Elles pourraient être conçues de façon à avoir un impact globalement neutre sur la redistribution des revenus et les recettes publiques.

*Classification JEL :* D9; H2; R21; R38.

*Mots-clés :* La Norvège, la fiscalité, double système d'imposition; l'imposition du capital; propriétaires occupants; impôt sur la fortune; taux de l'indemnité de retour; déduction pour capital de l'entreprise.

Ce Document de travail se rapporte à l'Etude économique de l'OCDE de la Norvège 2012 ([www.oecd.org/eco/etudes/norvege](http://www.oecd.org/eco/etudes/norvege)).

© OECD (2012)

---

**You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org).**

---

## TABLE OF CONTENTS

Tax reform in Norway: A focus on capital taxation .....	5
Main features of the dual income tax system.....	7
The taxation of capital income and wealth .....	11
Gift and inheritance taxation .....	20
Corporate income taxation.....	22
Local property taxation .....	27
The stamp duty on property transactions .....	29
The economic consequences of the recommended reform measures .....	29
BIBLIOGRAPHY .....	32
ANNEX A1 EFFECTIVE TAX RATES ON SAVINGS IN DIFFERENT ASSET CLASSES .....	35

### Tables

1. Tax revenue by main tax category, 2010 .....	6
2. Categories of capital taxation.....	11
3. Tax treatment of asset classes .....	12
4. Effective tax rates on the real income from different assets .....	13
5. Marginal labour income tax rates.....	23
6. Statutory tax rates for a Norwegian resident investing in Norwegian equity .....	24
7. Statutory tax rates on the normal return of investing in Norway .....	27
8. Use of the local property tax, 2010 .....	28
9. Budgetary and redistributive consequences of possible reform measures .....	30
A1.1. Effective tax rates on the real income from different assets under alternative assumptions.....	37

### Figures

1. Government tax receipts .....	5
2. Average taxable gross financial capital per household, 2009 .....	8
3. Mainland revenue from capital taxation, 2008 .....	10
4. Household wealth and debt, second quarter 2009.....	14
5. Valuation in the base of the wealth tax .....	16
6. Total tax wedge on deferred consumption (for labour income earned in year 0) .....	17
7. Recurrent taxes on net wealth, 2010 .....	19
8. Revenue from gift and inheritance taxation, 2010 .....	21
9. Non-oil business investment in international comparison .....	25
10. Statutory corporate income tax rate, 2011 .....	26

### Boxes

Box 1. Main characteristics of the Norwegian tax system.....	6
Box 2. Why the design of capital taxation matters for efficiency and growth.....	9
Box 3. Summary of recommendations on capital taxation .....	31

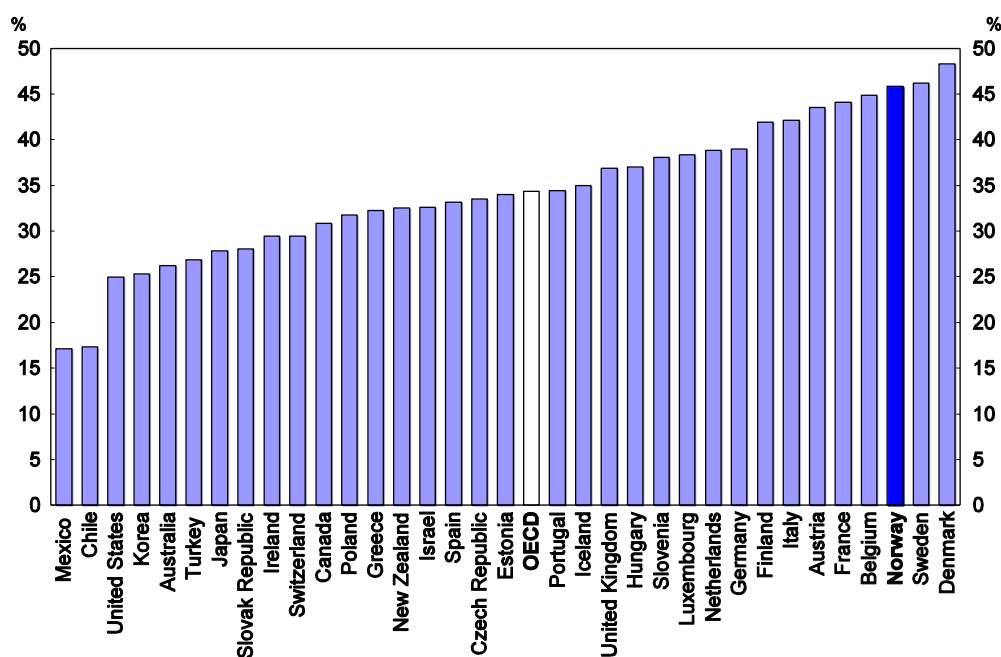


## Tax reform in Norway: A focus on capital taxation

by Oliver Denk<sup>1</sup>

Because of high spending, Norway needs to collect large amounts of tax revenue. This results in a higher mainland tax-to-GDP ratio than in almost any other OECD country (Figure 1 and Box 1). The high level of taxation does not appear to overly undermine economic growth, as witnessed by the impressive performance of the economy, and it allows for considerable income redistribution, which facilitates the prevalence of an egalitarian society. This suggests that the tax system is generally designed in an efficient way – in the sense of attaining high social welfare in terms of both average incomes and equity considerations. Norway’s tax system nonetheless displays a number of deficiencies, mainly in the capital part of the tax system. The paper therefore focuses on this area. It provides an analysis of all types of capital taxation: personal income taxation of the return to savings, corporate income taxation, wealth taxation, local property taxation, the stamp duty on property transactions and gift and inheritance taxation. For the mainland economy in 2008, these taxes amounted to NOK 118 billion, or 14% of the overall tax revenue of the government. The implied economic distortions could be larger than this might suggest.

**Figure 1. Government tax receipts<sup>1</sup>**  
As a percentage of GDP, 2010<sup>2</sup>



Note: Data for Norway refer to mainland. OECD area is the simple average of OECD countries for which data are available.

1. Include social security contributions, total direct taxes on households and businesses, taxes on production and imports; and exclude capital tax and transfer receipts.
2. Or latest year available.

Source: OECD Economic Outlook database.

1. Economics Department, OECD. Email: Oliver.Denk@oecd.org. This paper was originally produced for the 2012 OECD Economic Survey of Norway and published in February 2012 under the authority of the Economic and Development Review Committee (EDRC) of the OECD. I would like to thank Annette Alstadsæter, Nina Bjerkedal, Bert Brys, Andrew Dean, Bob Ford, Kaja Fredriksen, Brynjar Indahl, Michael Jacobsen, Stephen Matthews, Jean-Baptiste Michau, Jan Södersten, and especially Patrick Lenain and Paul O'Brien for valuable comments and discussions.

### Box 1. Main characteristics of the Norwegian tax system

As other OECD countries, Norway relies to a large extent on personal income taxation (*i.e.* labour income taxation and capital income taxation), consumption taxation and corporate income taxation to raise public revenue. The level of each of these three tax categories is significantly above its respective average in the OECD (Table 1):

- Personal income taxation (as a share of mainland GDP) is the fourth highest in the OECD. Statutory personal income tax rates are flat relative to the tax base in OECD-wide comparison (Joumard, Pisu and Bloch, 2012). Ordinary income, defined as the sum of labour and capital income, above the personal allowance of NOK 45 350 per year, is taxed at 28%. Capital income in the form of dividends and capital gains is tax-exempt up to the “normal” (or risk-free) return. Surtaxes of 9% and 12%, respectively, are levied on labour income exceeding NOK 490 000 and NOK 796 400 per year. The standard employers’ and employees’ social security contribution rates are 14.1% and 7.8%. Employers’ social security contributions are charged at a reduced rate in less populated areas.
- Consumption taxation (as a share of mainland GDP) is the third highest in the OECD, primarily because the 25% standard rate of the value-added tax is well above the OECD average of 19%. The consumption of foodstuffs is taxed at the reduced rate of 15% (up from 14% in 2011), and the supply and procurement of passenger transport as well as the letting of hotel rooms and holiday homes are taxed at 8%.
- Corporate income taxation (as a share of total GDP) is by some margin the highest in the OECD, mainly thanks to the large tax payments by petroleum companies. The standard statutory tax rate is 28%, and special taxes of 50% and 30% are imposed on the income from petroleum extraction and hydro power, respectively.

Note: The levels of statutory tax rates and allowances are those proposed for 2012 in Ministry of Finance (2011a).

**Table 1. Tax revenue by main tax category, 2010**

As a percentage of GDP

Selected OECD countries	Personal income	Consumption	Corporate income
<b>Norway</b>	<b>25.7</b>	<b>15.4</b>	<b>9.7</b>
Sweden	27.6	13.5	3.5
Finland	25.1	13.3	2.5
Denmark	27.9	15.2	2.7
Germany	23.1	10.7	1.5
France	25.3	10.7	2.1
Italy	24.8	11.0	2.8
United Kingdom	16.7	10.8	3.1
United States	14.4	4.4	2.7
Canada	16.9	7.7	3.4
Japan	16.5	5.2	2.6
Korea	9.4	8.5	3.5
<b>OECD average</b>	<b>18.1</b>	<b>11.0</b>	<b>2.9</b>

Note: For Norway, data on personal income and consumption refer to the mainland and on corporate income to the total economy.

Source: OECD Revenue Statistics database and OECD Economic Outlook database.

## Main features of the dual income tax system

Norway, like Denmark, Finland and Sweden, has a dual income tax system which differentiates taxation depending on the source of income, with capital income taxed differently to non-capital (mainly labour) income. The sum of labour income and capital income (referred to as ordinary income) is taxed at a statutory rate of 28%. Labour income is subject to additional taxation stemming from social security contributions and surtaxes levied above certain thresholds. This approach seeks to limit the type of distortion induced by the traditional comprehensive income tax system, which taxes labour income and capital income in the same way and results in double taxation of earned labour income and high tax rates on real returns. Dual income taxation has gained broad support in many European countries. The German corporate tax reform of 2008, for example, abandoned the previous comprehensive income tax in favour of a dual income tax-like system.

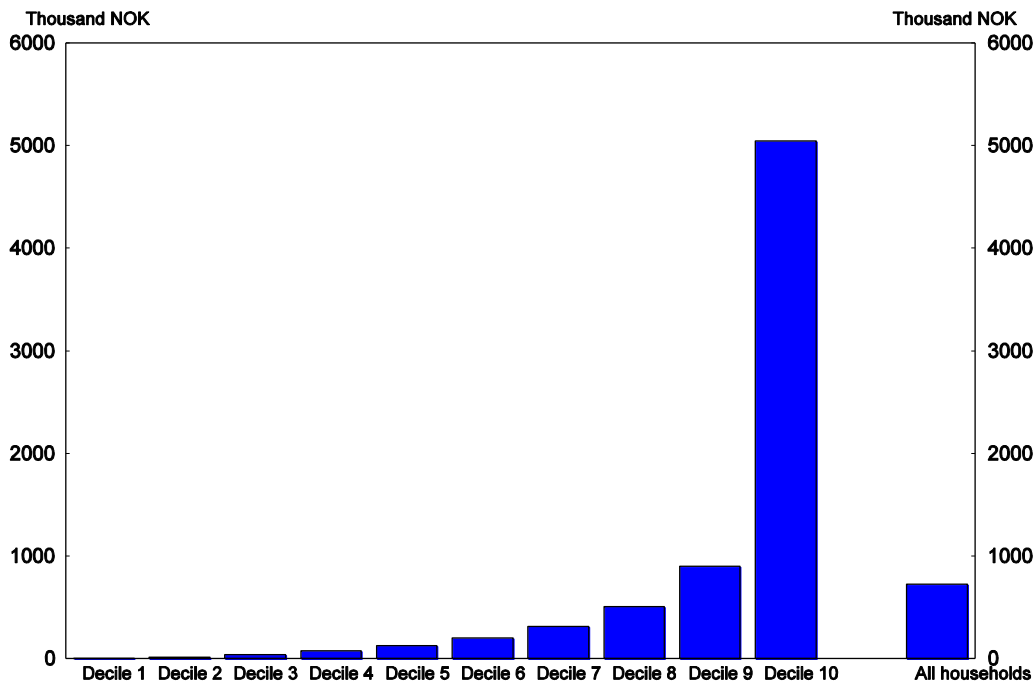
Dual income taxation is based on the principles of: *i*) broad tax bases; *ii*) progressive labour income tax rates; and *iii*) a small proportional (*i.e.* below the tax rates on labour income) statutory tax rate on capital income. These characteristics are generally seen to be conducive to efficiency (see *e.g.* Griffith, Hines and Sørensen, 2010). Broad tax bases reduce marginal rates and hence deadweight losses. Levying a statutory rate on capital income below that on labour income takes, up to a degree, into account the double taxation of labour income and the taxation of purely inflationary gains. It promotes savings, investment and thus growth (the more so, the larger is the home bias in investment). In the face of high capital mobility, it also reduces the incentive of residents to hide their assets abroad. Proportional (as opposed to progressive) taxation of capital income eliminates the arbitrage opportunities that would arise if people were subject to different marginal capital income tax rates.

With respect to equity considerations, progressive labour income taxation contributes to income redistribution. While the taxation of capital income is proportional relative to its base, the highly skewed distribution of financial capital (Figure 2) implies that the richest 10% of households pay approximately 70% of all tax revenue from capital income. Even proportional taxation of capital income thus ensures a relatively large contribution of these households to the financing of social transfers which in turn helps to narrow income inequality.

Under certain assumptions, a reasonable case can be made that, in principle, capital income should be subject to zero taxation. A key reason is to avoid saving out of current income being double taxed – once when labour income is earned and again when the return on savings is earned. Double taxation of savings would result in future consumption being taxed more heavily than current consumption, thus inducing a distortion. This is what motivated the authors of the Mirrlees Review (2011) of taxation in the United Kingdom to advocate full exemption of the “normal” (or risk-free) return to savings from taxation. As Box 2 argues in some more detail, the design of the system of capital taxation is therefore important from the perspective of both efficiency and growth. It influences the investment incentives, the allocation of savings and the degree of intergenerational mobility in the economy.



Figure 2. Average taxable gross financial capital per household, 2009



Note: Students are not included.

Source: Statistics Norway.

A number of arguments, however, both theoretical and practical, can be advanced to justify non-zero taxation of capital income. For instance, people with high earnings ability and hence high ability to pay taxes may have a higher propensity to save (for evidence, see the studies cited in Banks and Diamond, 2010) or be better at achieving a higher (average) rate of return on financial investments. Taxing capital income is also useful to reduce incentives for tax arbitrage or evasion, for example small business owners reporting their labour income as capital income or self-employed individuals incorporating solely for tax purposes; a practice found in some countries with low capital income tax rates.<sup>2</sup>

2. A range of other, often rather subtle, arguments exists. Firstly, in contrast to most costs in the production of income from financial capital, the costs in the production of income from human capital, *e.g.* foregone earnings, books, tuition, are not deductible. Therefore, by taxing capital income the government can provide an implicit subsidy to human capital investments to avoid individuals substituting financial for human savings (Jacobs and Bovenberg, 2010). Secondly, some individuals may accumulate precautionary savings to guard themselves against future (permanently) negative income shocks. Savings may then be taxed as otherwise those who prove able to maintain high labour incomes at a later stage in their life would have an excessively high incentive to work less (Golosov and Tsyvinski, 2006). Thirdly, capital market imperfections and uninsurable idiosyncratic shocks to the rates of return may justify shifting some inheritance taxation toward lifetime capital taxation (Piketty and Saez, 2011).

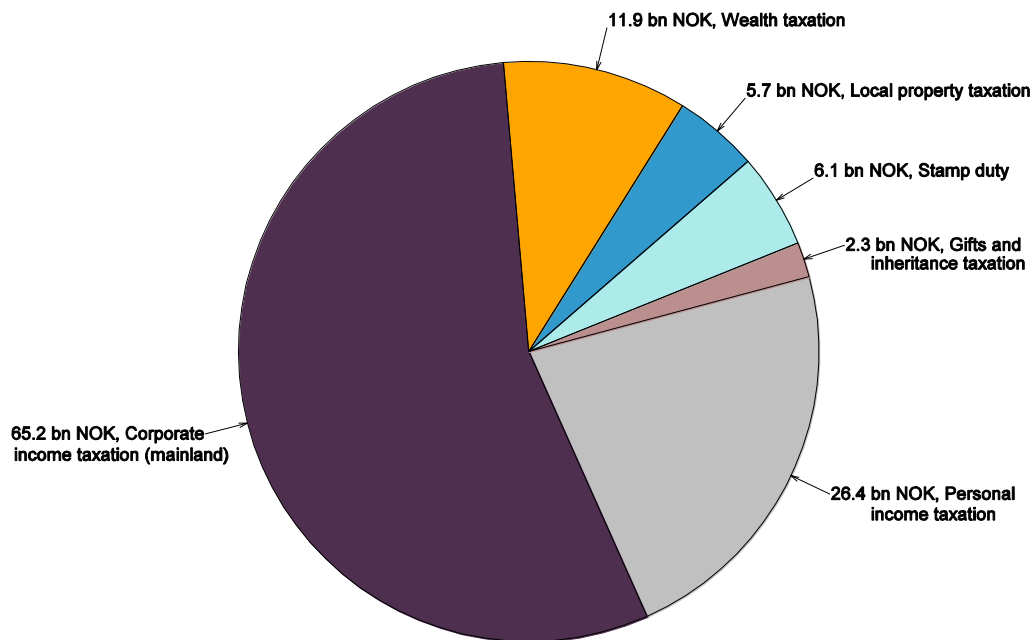
### Box 2. Why the design of capital taxation matters for efficiency and growth

The design of the system of capital taxation is important from the perspective of both efficiency and growth:

- Academic arguments against capital taxation usually draw on two seminal studies (for an overview, see e.g. Salanie, 2003; Mankiw, Weinzierl and Yagan, 2009; Diamond and Saez, 2011). Firstly, the compounding of the tax burden on savings and wealth through time may drive an increasing wedge between the pre- and post-tax return to capital, reducing the capital stock and aggregate output in the long run (Judd, 1985; Chamley, 1986). Secondly, capital taxes represent double taxation of labour income which had already been taxed when earned and hence distort the intertemporal decision of a person when to spend her income but have no beneficial effect on her incentives to supply labour (Atkinson and Stiglitz, 1976).
- However, as discussed in the main text and footnote 2, some taxation of real capital income can be justified. On the other hand, if capital taxes are set too high, they are likely to overly reduce the level of savings in the economy; for numerical simulations based on a standard life-cycle model, see e.g. Attanasio and Wakefield (2010). In a fully open economy, the size of domestic savings would be largely irrelevant for domestic investment and growth, but arguably no economy can be described as fully open in this sense. Between 2006 and 2009, Norwegian investors on average accounted for 46% of the market value of the Oslo Stock Exchange (Södersten and Lindhe, 2011).
- In a relatively open economy like Norway, the corporate income tax system that is faced by all investors is likely a more important determinant of investment and growth than the capital income tax at the personal level that applies only to residents. Hines (1999) and Devereux and Griffith (2002) provide summaries of the relevant empirical literature, concluding that the international location of real investment is indeed sensitive to tax policies. Differences in the relative tax treatment of asset classes (interest-bearing accounts, shares, housing, etc.) change their relative rates of return and thus potentially the form of investment undertaken. Taxing capital may also indirectly reduce labour supply (depending on the size of the substitution and the income effect) since higher capital taxes will reduce the value of any given labour income.
- Capital taxation is instrumental in facilitating intergenerational mobility, another channel through which it could impact efficiency and growth. This is most obvious in the case of inheritance taxation; one of the key rationales for inheritance taxation is the improvement of equality of opportunity (for a summary, see e.g. Kopczuk, 2009; Boadway, Chamberlain and Emmerson, 2010).

The taxation of capital can be broadly divided into the taxation of the *income* from capital, the taxation of the *stock* of capital and the taxation of the *transfer* of capital. In Norway, the taxation of capital income includes personal income taxation (of interest, dividends, rents, capital gains) and corporate income taxation. The stock of capital is taxed through the wealth tax and the local property tax, while capital transfers are subject to the stamp duty and the gift and inheritance tax. Figure 3 shows the relative importance of these six categories in the mainland revenue from capital taxation. Corporate and personal income taxes make up, respectively, 55% and 22%, while revenues from wealth, local property, stamp duty, gifts and inheritances together account for 22%.

Figure 3. Mainland revenue from capital taxation, 2008



Source: Ministry of Finance and Statistics Norway.

Table 2 summarises the key features of these different categories of capital taxation. In principle, all nominal returns to savings (interest, dividends, rents, capital gains) and all corporate profits are subject to a flat 28% statutory tax rate. However, a number of exemptions exist, chief among them are imputed incomes and capital gains from owner-occupied housing. Surtaxes also prevail, for instance citizens with wealth above NOK 750 000 (approximately EUR 100 000) face an annual tax of 1.1% on their wealth in excess of this threshold.<sup>3</sup> At the moment, 17% of the adult population pay the wealth tax. The wealth tax is not applied at the same rate across asset classes because real estate and individual private (IPS) pensions are treated favourably. Finally, a stamp duty of 2.5% applies to the transaction price of a property, and taxes of 6% and 10% are imposed on gifts and inheritances to children, above certain thresholds.

3. To be precise, the wealth tax in Norway is a *net* wealth tax as liabilities are subtracted from the tax base.

Table 2. Categories of capital taxation

	Statutory tax rates	Supplementary notes
<b>Taxation of capital income:</b>		
Personal income taxation	28%	Full exemption on imputed incomes and capital gains from owner-occupied housing; effective reduction on individual private (IPS) pensions; rate of return allowance on dividends and capital gains
Corporate income taxation	28%	50% additional tax on petroleum companies
<b>Taxation of the capital stock:</b>		
Wealth taxation	1.1% annually on wealth in excess of NOK 750 000	Reductions on owner-occupied housing and rental housing; full exemption on IPS pensions
Local property taxation	0-0.7% annually on the property value	Set by the municipalities; not used by one third of them
<b>Taxation of capital transfers:</b>		
Stamp duty	2.5% on the transaction price	Full exemption on cooperatives
Gift and inheritance taxation	6% (10%) on gifts and inheritances received during life in excess of NOK 470 000 (800 000), calculated separately for each donor	Annual allowances; tax rates for beneficiaries other than children are higher but apply only to inheritances, not gifts

A traditional, but ill-conceived argument in favour of wealth taxes is that they tax a separate base. In fact, taxes on capital income and taxes on the capital stock are largely identical. Consider a citizen with wealth of NOK 100 million that earns a rate of return of 4% or a return of NOK 4 million. It is irrelevant whether the government levies a tax of 28% on the capital income of NOK 4 million (= NOK 1.1 million) or a wealth tax of 1.1% on the capital stock of NOK 100 million (= NOK 1.1 million). It follows that a capital income tax of 28% *or* a wealth tax of 1.1% yields the same tax burden (when the rate of return is 4%). Imposing on a person a capital income tax of 28% *and* a wealth tax of 1.1% then means that she effectively pays twice as much tax as the rate of the capital income tax alone suggests. (This is numerically confirmed in Table 4 below.) The paper therefore considers wealth taxation as a form of capital income taxation.

### The taxation of capital income and wealth

As shown in Table 2, incomes from different asset classes are treated differently by the tax system, with some left largely untaxed, while others are subject to surtaxes. It is hard to find a compelling economic argument that may justify the preferential tax treatment of some asset classes over others.<sup>4</sup> A tax system that is neutral with respect to the type of assets owned avoids encouraging investment in what would otherwise be unproductive uses (Arnold *et al.*, 2011; Mirrlees Review, 2011; Jacobs, 2011).

#### *Investments in housing are heavily favoured by the tax system*

Table 3 provides a summary of the statutory tax treatment of five asset classes that are available to most citizens: interest-bearing accounts, shares, housing (separately for owner-occupied and rental) and IPS pensions. The nominal return on interest-bearing accounts is taxed at 28%. For shares in Norwegian

4. One example of a justified exemption from the neutrality across asset classes rule are some tax breaks to pensions which may induce people to save more for their retirement than they would otherwise do due to myopia.

companies, taxation occurs at two levels; at the corporate level through the corporate income tax and at the personal level through the personal income tax. The corporate income tax rate is flat at 28%. On the remaining 72%, an additional 28% is levied on dividends and capital gains if their rate of return exceeds the normal rate of return (defined as the average interest rate on three-month Treasury bills). This implies a total tax for shares of 28% on the normal return and 48% (= 28% + 28% \* 72%) on above-normal returns. No tax applies to the returns on owner-occupied housing, while rents and capital gains from rental housing are subject to the standard 28% tax rate.<sup>5</sup> Mortgage interest on both owner-occupied and rental housing is fully deductible. For pensions, the focus in this paper is on the voluntary IPS scheme, because savings in the National Insurance and occupational schemes are mandatory and therefore not substitutable with other investment vehicles. The IPS scheme does not tax capital incomes directly, but in most cases these are indirectly brought into the tax base through the taxation of pension income at the point of withdrawal.

In addition to the taxation of capital income, a wealth tax of 1.1% per year is imposed on the capital stock above NOK 750 000. The valuation in the base of the wealth tax varies enormously across asset classes. On one end interest-bearing accounts and shares are valued at 100%, while on the other IPS pensions are completely exempt. Owner-occupied and rental housing are treated favourably because only a portion of their value is included in the tax base (25% and 40%, respectively), which is equivalent to wealth tax rates of 0.275% (= 25% \* 1.1%) and 0.44% (= 40% \* 1.1%) respectively.

**Table 3. Tax treatment of asset classes**

Asset class	Capital income taxation	Wealth taxation (in excess of NOK 750 000)
Interest-bearing accounts:	28% personal income tax on the nominal return	1.1%
Shares:	28% corporate income tax on nominal profits; in addition, 28% personal income tax on dividends and capital gains in excess of the normal return	1.1%
Housing:		
Owner-occupied housing	0%	Effectively 0.275% (valued 25% in the tax base)
Rental housing	28% personal income tax on rents and capital gains	Effectively 0.44% (valued 40% in the tax base)
Individual private (IPS) pensions:	0% during accumulation (effectively above 0% through the taxation of pension income at withdrawal)	0%

Hence, the tax system treats asset classes in different ways. To transparently capture the total tax liability due on each asset class, it is useful to subsume all the taxes applying to any one asset into a single one. To this end, Table 4 provides for each class the effective tax rate (ETR), defined as the percentage reduction in the annual real rate of return on an extra NOK of saving caused by the tax system:

$$ETR = \frac{(\text{pre tax real rate of return}) - (\text{post tax real rate of return})}{\text{pre tax real rate of return}}$$

5. Rental income below NOK 20 000 during a calendar year (which is a small amount) is tax-exempt, while if rental income is above this threshold the 28% tax rate applies to the full amount (also up to the NOK 20 000). The same rules apply when more than 50% of an owner-occupied property is rented out. Capital gains on owner-occupied housing are only taxable if the owner occupied the property for less than one of the two years prior to the sale.

If no tax on capital is levied, then the post-tax real rate of return will equal the pre-tax real rate of return, and the ETR will be 0%. By contrast, if the entire real return is taxed away, then the post-tax real rate of return will be 0%, which implies an ETR of 100%. The calculations are done separately for individuals who pay and those who do not pay the wealth tax. Annex A1 explains them in detail. The underlying assumptions are a pre-tax nominal rate of return of 4% and an inflation rate of 2%. These correspond closely to the nominal rate of return to government bonds and consumer price inflation in Norway since 2000. The ETRs are the effective tax rates prescribed by law. To the extent that people avoid or evade paying capital income or wealth taxes, the actual effective tax rates that they pay could be lower.

**Table 4. Effective tax rates on the real income from different assets**

	Without wealth tax	With wealth tax
Interest-bearing accounts	56%	113%
Shares	56%	113%
Owner-occupied housing	0%	14%
Rental housing	56%	79%
Individual private (IPS) pensions	37%	37%

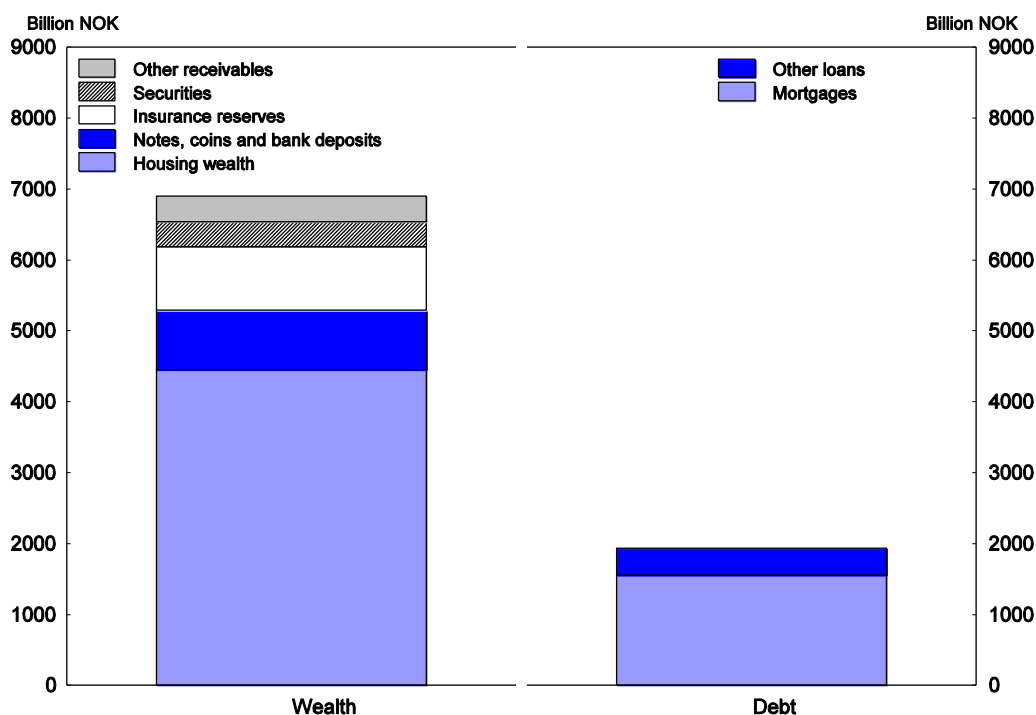
*Note:* The calculations are done for a nominal rate of return of 4% and an inflation rate of 2%, which correspond closely to the nominal rate of return to government bonds and consumer price inflation in Norway since 2000. The effective tax rates (ETRs) apply to an extra NOK of saving by a Norwegian resident investing in a Norwegian asset. The ETRs for shares are based on nominal depreciation rates which are a reasonable approximation to how the Norwegian tax system functions as tax depreciation depends on the cost price (and not the repurchase price) and the expected life span of the asset. The ETRs for owner-occupied housing and rental housing are independent of the degree of debt finance versus self-finance when assuming that mortgage interest rates equal savings interest rates. The ETRs for IPS pensions are based on a tax rate on pension income of 39% and the assumption that the initial savings stay in the scheme for 15 years and are then paid out over a period of 15 years (as an annuity).

*Source:* Ministry of Finance.

The table illustrates the serious shortcomings of the current system in aligning tax rates across all asset classes and maintaining an ETR on capital income not above the tax rates on labour income. (The top labour income tax rate, including social security contributions, is 54%.) For people not paying the wealth tax, owner-occupied housing and IPS pension investments enjoy generous tax advantages. The statutory capital income tax rate of 28% applies in full only to the income from interest-bearing accounts, shares and rental housing, resulting in an ETR of 56%. Intuitively, since the tax system applies the statutory rate to the nominal return, the ETR on the real return, when the real return is half the nominal return, is twice the statutory rate ( $56\% = 2 * 28\%$ ).

The wealth tax doubles the ETR on interest-bearing accounts and shares. Intuitively, the wealth tax knocks 1.1% off the stock which is more than half the real return of 2%, and thus adds more than 50% to the ETR on interest-bearing accounts and shares. The wealth tax amplifies the preferential treatment of housing, due to its undervaluation in the tax base. As a result, for persons paying the wealth tax, the ETR on interest-bearing accounts and shares (113%) is 8 times that on owner-occupied housing (14%), 3 times that on IPS pensions (37%) and 1.5 times that on rental housing (79%). That more than 50% of household wealth is held in housing property and more than 80% of household debt accounted for by mortgages (Figure 4) suggest that the implicit tax subsidies to housing investments influence the savings decisions of households.

Figure 4. Household wealth and debt, second quarter 2009



Source: Statistics Norway and Norges Bank.

*The taxation of imputed rents should be re-introduced, at the level of alternative types of investments*

Neutrality of investment stipulates that the ETR should be the same across asset classes. For owner-occupied housing, this could be achieved through the introduction of the taxation of imputed rents and capital gains at the statutory tax rate of 28% that applies to alternative types of investments.<sup>6</sup> Imputed rents represent the rental income that an owner-occupying household would receive if it rented the property to a different household. They should therefore be taxed. Possible external benefits from owner occupation, insofar as any exist, cannot plausibly justify the currently extraordinarily preferential treatment. Norway used to tax the returns to owner occupation until 2005. Political considerations were the major driving force behind the abolition of the tax. But the tax was generally not very effective because the tax-assessed values were quite random and particularly low (relative to the market values) for expensive houses.

Rather than property values as in the previous system, the tax base in a reformed system should preferably be imputed rents. From a political perspective, contrary to a tax on imputed rents (whose rate should be the same 28% that applies to interest, dividends, rents and capital gains), setting the tax rate on property values would likely be more subjective. From an economic perspective, property values are only an imprecise measure of the returns to housing, since, unless future rents are expected to change similarly in all geographical areas, the distribution of house prices will differ from the distribution of imputed rents across areas. In most areas, the rental market should be sufficiently large to allow for a reliable estimation

6. This would not strictly speaking be sufficient due to the existence of a home savings (BSU) scheme which is meant to encourage young individuals (under age 34) to save for a future home purchase. It has a 20% tax deduction (to be claimed against ordinary income) for annual savings of up to NOK 20 000 in special accounts (with a NOK 150 000 limit on total savings).

of the unobserved rents on owner-occupied housing. Elsewhere, house prices and average price-to-rent ratios could be used as an indirect means to estimate imputed rents. The levels of imputed rents should then be updated regularly. The aim should be a *gradual* introduction of imputed rent taxation to minimise the economic impact on current owners who would suffer windfall losses as a result of the reform. If taxation of (imputed) rents and capital gains from owner-occupied and rental housing is implemented, full deductibility of mortgage interest and other expenses should be retained.

An alternative is to assume that imputed rents are proportional to property values and introduce a housing property tax at the national level. This tax would use the property valuation system that is already in place for the wealth tax. The tax rate on house prices should then in principle be set so that the revenue from housing property taxation would (in aggregate) equal the revenue from the taxation of imputed rents. To bring unexpected capital gains into the tax base, the housing property tax should be accompanied by the introduction of the taxation of capital gains on owner-occupied housing at the standard capital income tax rate of 28%. If such a system of taxation of property values were applied to both owner-occupied and rental housing, the existing taxation of rents (but not capital gains) from rental housing should be discontinued, as otherwise both the return and the stock of rental housing would be taxed. In any case, full deductibility of mortgage interest and other expenses should be retained.

A final – though less desirable – possibility to reduce the preferential tax treatment of owner-occupied housing would be to eliminate mortgage interest deductibility on owner-occupied housing. This would raise the ETR on the debt-financed part of owner-occupied housing towards the 56% due on interest-bearing accounts, shares and rental housing (for households not paying the wealth tax). By contrast, the ETR on the self-financed part of owner-occupied housing would remain 0%. At the moment, the deductibility of mortgage interest ensures that the tax system leaves home buyers indifferent between debt finance and self-finance. While removing mortgage interest relief would tend to raise the average ETR on owner-occupied housing, this advantage would come at the cost of giving rise to the additional distortion of the tax system pushing households to self-finance their houses. In addition, because of the difficulties ring-fencing interest related to mortgages on owner-occupied houses, abolishing mortgage interest deductibility would probably introduce some debt shifting in the personal income tax, thereby undermining the uniform treatment of different sources of capital income.

*The government should investigate the economic effects of the tax breaks to the IPS pension scheme*

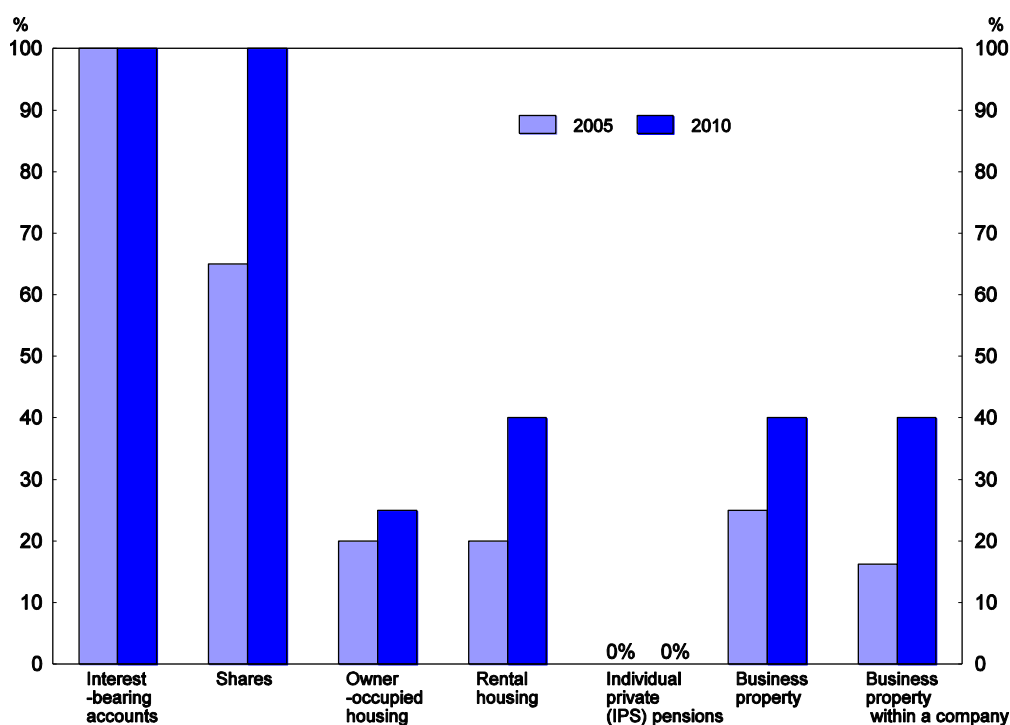
IPS deposits are fairly small-scale, partly explained by various restrictions; at the moment, they account for less than 0.1% of all household deposits. The biggest tax advantage of IPS pensions is their exemption from the wealth tax. However, even if IPS pensions were included in the base of the wealth tax, their ETR would be significantly lower than that on interest-bearing accounts and shares. The mandatory National Insurance and occupational schemes are meant to ensure a sufficient pension level for all citizens. In some countries, tax privileges to voluntary pension plans may be useful to allow citizens to hedge their risk of not receiving the public and private pensions that the mandatory schemes promise. This argument applies to a much lesser degree in Norway given the sheer size of its sovereign wealth. The government should investigate which individuals participate in the IPS pension scheme and the likely impact of the tax breaks on their total saving. If the results show that IPS pensions are primarily taken up by the more well-off households with no significant change to their saving, it should phase out all tax breaks to the scheme.

Taxing imputed rents and capital gains from owner occupation would align tax rates across asset classes under the capital income tax but would not remove the distortions due to the current undervaluation of owner-occupied and rental housing and business property in the base of the wealth tax. Some upward corrections to the valuation of different asset classes have been taken recently. In 2010, the valuation of housing property and business property was raised somewhat (Figure 5). But since the tax base now



accounts for shares in full, this change in the valuation structure of the wealth tax is likely to have made the tax advantages of housing property and IPS pensions even more pronounced, plausibly giving rise to a further misallocation of capital in the economy. The government should remove the special treatment of real estate, IPS pensions and business property in the wealth tax. In this context, it was right to reject calls by the Confederation of Norwegian Enterprise (NHO), Norway's major organisation for employers, to introduce an exemption in the wealth tax on working capital. This would merely have led to an additional undermining of a system already packed with exemptions.

**Figure 5. Valuation in the base of the wealth tax**



Source: Ministry of Finance.

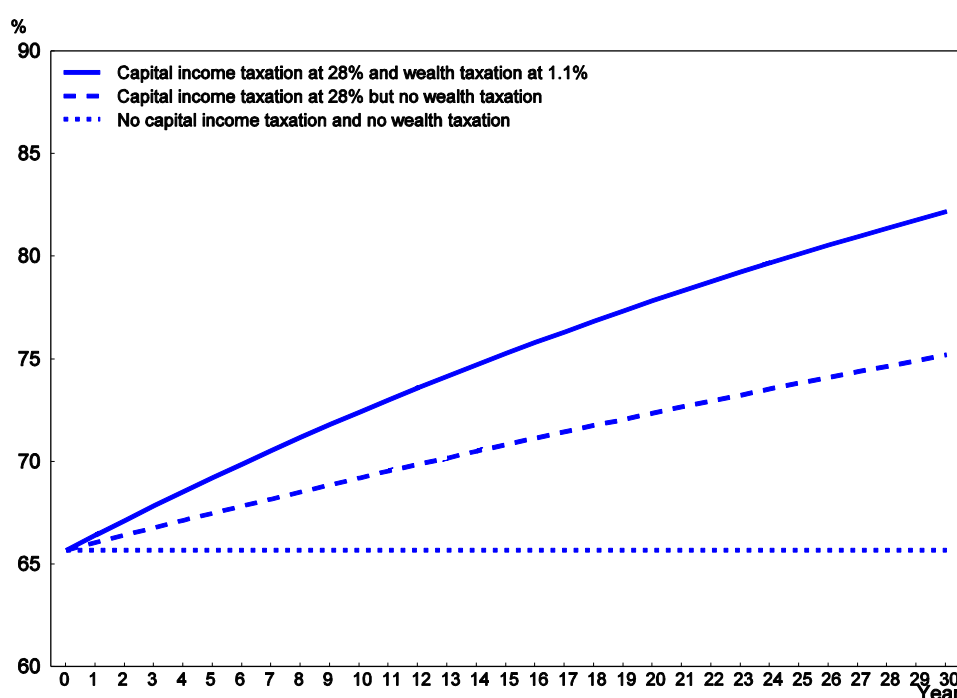
*Effective tax rates on people paying the wealth tax are very high, sometimes exceeding 100%*

If the base of the wealth tax included all assets at full value, at current rates the ETR for people paying the wealth tax would increase to 113% for all asset classes. The wealth tax implies that, contrary to the idea of dual income taxation, capital income is not taxed at a flat but highly progressive rate, with the marginal tax rate on capital income for wealthy households being in effect twice the one for less wealthy households. An ETR higher than 100% for wealth tax payers means that by saving these people actually *reduce* the real value of their wealth. The reasons for the ETR taking on levels of above 100% are twofold. The statutory tax rates apply to the nominal return and not the real return, and the wealth tax mechanically reduces wealth and hence may siphon off all (or even more than all) of the real return.

ETRs of above 100% are bound to encourage wealthy households to seek avoidance and evasion opportunities. To the extent that these ETRs are actually paid, they should be a strong disincentive to save and invest, which could be one factor to explain why mainland business investment as a share of mainland GDP is so low (for details, see Figure 9 below). By significantly reducing the value of labour income, they are also likely to have an overly harmful impact on the labour supply of wealthy citizens.

Figure 6 illustrates these strong disincentives to work for a person in the top labour income tax bracket who must decide whether to work for an additional labour income now (say, when she is 40) which she considers spending during her old age (when she will be 70). Her labour income is subject to the top labour income tax rate of 54% (including social security contributions). If she consumed her labour income immediately, her consumption would be taxed at the (standard rate of the) value-added tax of 25%, resulting in a total tax wedge of 66% (= 54% + 25% \* 46%). If she has to pay the wealth tax and wants to consume her earned labour income after 30 years instead, the total tax wedge due to the combination of capital income and wealth taxation will rise to 82%.

**Figure 6. Total tax wedge on deferred consumption (for labour income earned in year 0)**



Note: The total tax wedge accounts for labour income taxation (including all social security contributions) at the top rate of 54% and consumption taxation at the standard value-added rate of 25%. With no capital income taxation and no wealth taxation the total tax wedge does not depend on when the earned labour income is spent. Capital income taxation and/or wealth taxation raise the total tax wedge - all the more, the later the labour income earned in year 0 is spent. The calculations are done for a nominal rate of return of 4% and an inflation rate of 2%. The tax rates indicated in the legend are the statutory ones.

In a background paper to the Mirrlees Review (2011), Brewer, Saez and Shephard (2010) estimate the revenue-maximising (or top of the Laffer curve) tax rate on labour income (including social security contributions) and consumption for the highest earners as 56%. This is 10 percentage points below Norway's current one, although the Norway-specific revenue-maximising tax rate would likely be lower given its in comparison harsher tax treatment of capital. That this effect could be at play is borne out by evidence documenting that people with total income (*i.e.* sum of labour income and capital income) of above NOK 3 million pay less income tax (as a share of pre-tax income) than people with total income of NOK 0.75-3 million (Ministry of Finance, 2011b). People with total income of above NOK 3 million probably pay more capital income tax (as a share of pre-tax income) than people with total income of NOK 0.75-3 million. This suggests that they pay less labour income tax and hence that labour income and labour supply may be declining for persons paying the wealth tax.

Even for a society with a very high preference for redistribution, which arguably is the case for Norway, it cannot be efficient to impose on some citizens capital income tax rates of above 100% on the

real return of some assets. Following the Mirrlees Review (2011) of taxation in the United Kingdom, the “optimal” ETR in Table 4 would be 0% on all asset classes. While this view is not universally shared, ETRs on capital income above the tax rates on labour income are generally seen as not desirable. The very high ETRs could be reduced either through the wealth tax or, in principle, the capital income tax. However, any significant cut in the capital income tax rate would lower its statutory rate below the one on labour income, encouraging individuals to declare labour income as capital income. It would also bring capital income taxes at the personal and the corporate level out of line. It would therefore have to involve a rather substantial reform of the entire tax system.

A tax on wealth is equivalent to taxing the normal (or risk-free) return to savings since it applies independent of the return that is achieved. As for example emphasised by the Mirrlees Review (2011), taxing the normal return is particularly harmful for saving and investment incentives since it in effect means taxing all types of assets, risk-free and risky, alike. Taxing above-normal returns would be distinctly less harmful as to a large degree it amounts to taxing the economic rents of risky assets, such as scarce resources or specialist knowledge, whose taxation causes little distortions. To capture the distortions through capital income and wealth taxes on saving and investment decisions, the primary focus should thus be on the ETR when assets earn the normal return. The nominal rate of return of 4% and the inflation rate of 2% assumed in Table 4 are close to the nominal rate of return to government bonds and consumer price inflation in Norway since 2000 and hence correspond to what is commonly used to proxy the normal rate of return. Table A1.1 in Annex A1 shows that in any case a similar pattern also emerges for variations in the choice of these values.

*The wealth tax raises little revenue and potentially inhibits growth significantly*

Given an ETR of more than 100% on a large part of interest-bearing accounts and shares in the economy, the wealth tax is likely to give rise to tax avoidance and evasion, although this is difficult to quantify. The revenue from the wealth tax is small; in 2010 it was NOK 12.6 billion which is equivalent to about 0.2% of all (recorded) household wealth or 0.8% of mainland GDP. To the extent that the wealth tax is not avoided and evaded, the very high ETRs that it implies penalise saving and investment and therefore potentially inhibit growth significantly. The Norwegian authorities should investigate the impact of the wealth tax on tax avoidance and evasion and incentives to save and invest. If the growth-equity trade-off is too unfavourable to growth, they should phase out or reduce the wealth tax.

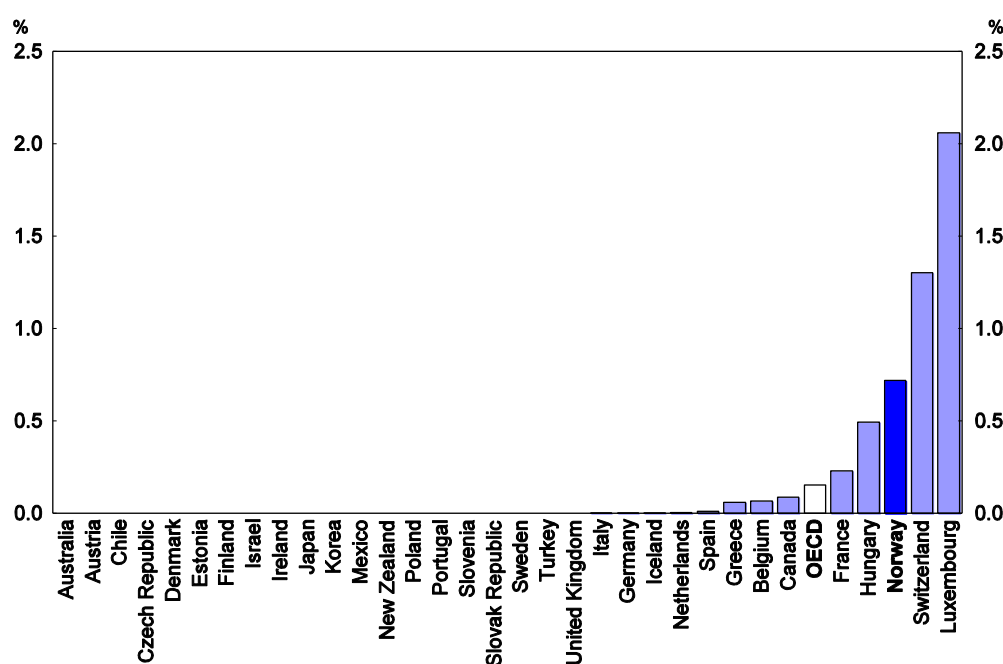
Rather few countries in the OECD levy a wealth tax. In fact, only two, Luxembourg and Switzerland, raise more government revenue (as % of mainland GDP) with some form of wealth tax than Norway does (Figure 7). Sweden abolished its wealth tax in 2007, to avoid cumulative taxation of capital income and wealth, and because it suffered from exceptions that created loopholes and encouraged tax planning (Swedish Ministry of Finance, 2007). The wealth tax is controversial in Norway and has been much in the public debate. This controversy is reflected by the leader of the Confederation of Trade Unions (LO), the largest and most influential workers’ organisation, calling on the government to re-evaluate the wealth tax, on the ground that it hinders investment (LO, 2011).

Phasing out the wealth tax would reduce the ETR on all assets (if imputed rents and capital gains on housing were taxed) to 56%, close to the top marginal tax rate on labour income of 54%. In the example above (see middle line in Figure 6) the total tax wedge after 30 years would be 75%. Phasing out or reducing the wealth tax might, however, be politically difficult because of its association with redistribution. A less complete reform should at least remove the undervaluation of real estate, business property and IPS pensions, while at the same time lowering the 1.1% statutory rate of the wealth tax. Raising the current threshold of NOK 750 000 would reduce the number of people paying the wealth tax but not solve the underlying problem of high marginal ETRs. To the extent that the government deems the progressive taxation of capital income desirable, an alternative to the wealth tax would be to add a

surcharge to the 28% statutory tax rate on capital income above a certain amount (to reach, say, 35%). Compared to the wealth tax, this would on the one hand probably provide some unwelcome incentives for businesses to camouflage capital as labour income, on the other it would have the beneficial effect of increasing the transparency about the actual tax rates that apply to savings.

**Figure 7. Recurrent taxes on net wealth, 2010<sup>1</sup>**

As a percentage of GDP



Note: Data for Norway refer to mainland. OECD area is the simple average of OECD countries for which data are available. The figures of GDP used for the calculations are those of the latest update available.

1. Or latest year available. Data refer to Revenue Statistics definition.

Source: OECD Revenue Statistics database.

On the face of it, phasing out or reducing the wealth tax appears to compromise the level of public revenue and the degree of redistribution which is likely to explain its popularity with some parts of the administration and the electorate. However, the actual revenue and redistribution effects might not be obvious. With no wealth tax, wealthy individuals may be induced to work more or hide less of their wealth abroad. This could lift revenues from personal (*i.e.* labour and capital) income taxation. Given the existing home bias in investment and the fact that most of the financial capital is owned by the 17% of the adult population who currently pay the wealth tax (see Figure 2), the implied rise in the post-tax rates of return could increase domestic investment. This might raise productivity, which should be reflected in higher wages and thus higher labour income tax revenues. For the same reason, part of the incidence of wealth taxes is probably borne by domestic workers whose wages are lower than they would otherwise be. Higher investment and growth would ultimately benefit households across the income spectrum.

*Phasing out the wealth tax and introducing a personal allowance on capital income would help align effective capital with labour income tax rates*

If the wealth tax were removed, the ETRs on most assets would be reduced to 56%, although this is still substantial, just above the top marginal tax rate on labour income but considerably higher than the

lowest rate. To bring the ETR closer in line with labour income tax rates for small savers, the government could introduce a personal allowance for each citizen (say, of NOK 10 000 annually) on all capital income received. Variants of such an allowance are in place in several OECD countries, *e.g.* Germany. As stressed in the Mirrlees Review (2011), the allowance should, ideally, capture only the normal returns to investments. For shares, this would require excluding above-normal returns from the allowance and to refund the corporate income tax paid on the corporate level (up to the allowance).

From an efficiency perspective, such a personal allowance would help households to save part of their labour income for the future (*e.g.* to start a family, to start a business) as they might do without capital income taxes. From an equity perspective, an ETR of 0% (up to the allowance) would especially benefit poorer households for whom bank deposits (which currently attract an ETR of 56%) are likely the most important type of investment. The allowance would thus strengthen tax progressivity, counterbalancing potential effects from phasing out the wealth tax. If kept small, there should be few problems with people playing the system. There is, however, a risk that such an allowance would inflate over time due to lobbying activity and also set a precedent which might lead to public demands for less justified allowances elsewhere in the system.

To summarise, the government should aim at making the return to all asset classes subject to the same tax rate, without exemptions through undervaluations in the tax base, in particular those of owner-occupied housing.<sup>7</sup> The statutory tax rate on capital income should remain at 28% and a detailed analysis of the consequences of the wealth tax for avoidance and evasion behaviour and saving and investment incentives be undertaken. Phasing out or reducing the wealth tax could be combined with the introduction of a personal allowance on capital income which may make such a reform more easily feasible politically. The recommendations of an investigation into the wealth tax and introducing the taxation of imputed rents and capital gains from owner occupation are broadly in line with those of the Tax Committee (2003) which advocated abolishing the wealth tax and replacing it with a national property tax.

### **Gift and inheritance taxation**

To a certain degree, wealth taxation indirectly taxes bequests prior to the occurrence of death. Phasing out or reducing the wealth tax may therefore decrease intergenerational mobility. This could affect the desired level of gift and inheritance taxation. Despite Norway's high level of overall tax revenue, revenue from gift and inheritance taxation is below the OECD average (Figure 8). The gift and inheritance tax falls on the recipient. Tax is due on gifts and inheritances a person receives during his lifetime from any other person above two thresholds: NOK 470 000 (level 1) and NOK 800 000 (level 2). These amounts apply per recipient and per donor. The rates differ between children<sup>8</sup> and other beneficiaries; they are 6% (level 1) and 10% (level 2) for children and 8% (level 1) and 15% (level 2) for other beneficiaries. In addition, each recipient has an annual allowance of currently NOK 39 608 in gifts and inheritances she receives from each other person. Gifts to persons other than children (as well as other persons who at the time of the donation are entitled to inherit the donor according to the inheritance law or the will of the donor) are tax-exempt. No tax on capital gains is triggered as a result of death. There are preferential rules for farms, non-listed shares and partnerships.

---

7. The focus of this section is on aligning tax rates across asset classes on the normal return. To attain full symmetric treatment of assets, the government should, in principle, also strive to align tax rates across asset classes on above-normal returns.

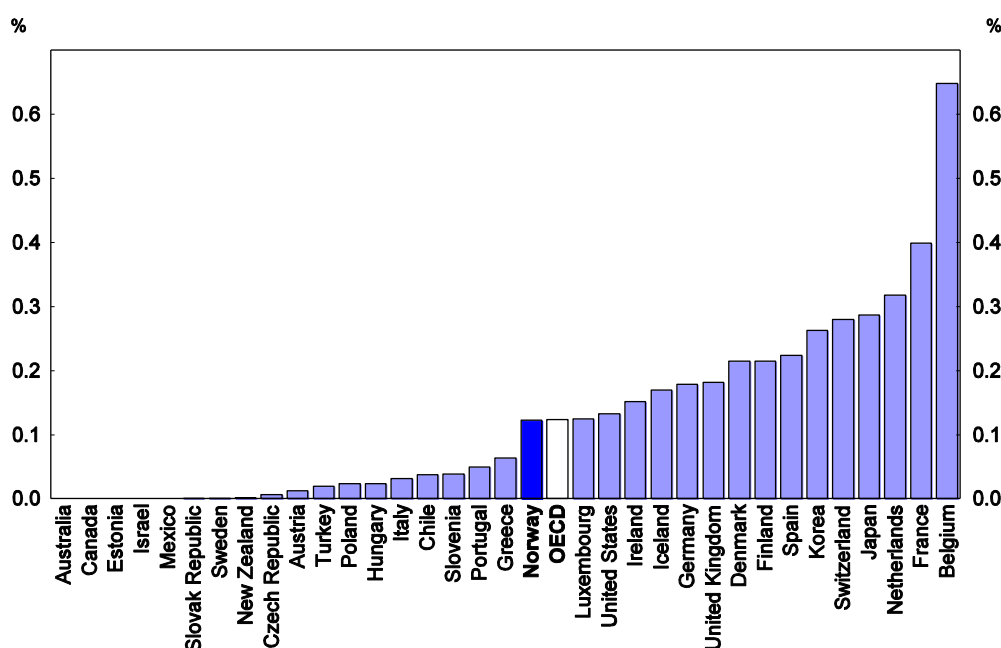
8. The law treats parents who inherit from their children as equivalent to children.

*Current allowances and preferential rules should be replaced by a single lifetime allowance on all taxable gifts and inheritances*

The current system of gift and inheritance taxation has a number of undesirable characteristics that undermine redistribution policy. Firstly, while gifts to a taxpayer's children are taxed, in order to avoid erosion of the inheritance tax base, gifts to others are untaxed. Hence, the tax system favours children at inheritance (by levying lower tax rates on bequests to children) but discriminates against children for *inter vivos* transfers (by exempting gifts to other persons). Secondly, to the extent that gift and inheritance taxation is meant to promote equality of opportunity and intergenerational mobility, what should matter for the tax treatment of any additional gift or bequest is the total amount of gifts and bequests a recipient has already received during her life rather than from any particular person. The current design makes the gift and inheritance tax very obviously prone to tax avoidance behaviour, for example only taxing gifts to children invites the use of third persons to channel gifts to children. Thirdly, the annual allowance is likely to benefit especially the wealthier population which is better able to avoid the tax through careful tax planning. This is not so easy for households who have all their wealth tied up in a house, for example. Finally, exempting capital gains on bequests from taxation provides incentives for old individuals to hold on to their capital until death. The tax breaks on farms, non-listed shares and partnerships encourage keeping a business in the family, even if the economic arguments speak against it.

**Figure 8. Revenue from gift and inheritance taxation, 2010<sup>1</sup>**

As a percentage of GDP



Note: Data for Norway refer to mainland. OECD area is the simple average of OECD countries for which data are available. The figures of GDP used for the calculations are those of the latest update available.

1. Or latest year available.

Source: OECD Revenue Statistics database.

Important changes to the present system are therefore needed. Above all, these should see substituting current allowances and preferential rules by a single lifetime allowance. This single lifetime allowance should then apply per recipient and to the total amount of taxable gifts and inheritances she receives during

her lifetime (and not for each donor separately). This implies no distinction is to be made between gifts and inheritances. Tax rates may continue to treat children somewhat preferentially over other beneficiaries, but this should be the same for gifts and inheritances. Capital gains of the donor upon the occurrence of death should be taxed, and the favourable rules applying to farms, non-listed shares and partnerships ought to be abolished.

### **Corporate income taxation**

The taxation of businesses in Norway was subject to a tax reform in 2006 (for an evaluation, see Ministry of Finance, 2011b). The primary objective of the reform was to reduce the growing problem of income shifting; markedly higher statutory tax rates on labour income than capital income provided business owners with strong incentives to camouflage labour income as capital income. One important aim of the reform was also to ensure good general conditions for investing (and working) in Norway and that tax bases and resources were not lost to other countries.

*The 2006 tax reform has successfully reduced income shifting by raising the tax rate on equity income and introducing an innovative rate of return allowance (RRA)*

The taxation of equity income occurs in two stages, at the corporate level on corporate profits via the corporate income tax and at the personal level on dividends and capital gains via the personal income tax. The imputation system which was in place prior to 2006 granted a tax credit at the personal level for corporate income tax already paid. Since tax rates on corporate income and personal income were the same, it effectively exempted all dividends and capital gains from taxation at the personal level. The total statutory tax rate on equity income equalled the corporate income tax rate of 28%, which was significantly below the prevailing labour income tax rates. As such, the system provided businesses with strong incentives to shift labour income to capital income in their tax declarations.

The tax reform of 2006 introduced the innovative concept of a rate of return allowance (RRA). This maintained the tax exemption for equity income at the personal level up to the normal return; however, dividends and capital gains in excess of the normal return were subjected to an additional tax of 28%. Among all OECD countries, Norway has to date been the only one that has made use of an RRA. The economic rationale for the lower taxation of the normal return rests on the theoretical idea that a substantial part of above-normal returns accrues to economic rents (such as scarce resources or specialist knowledge). As emphasised *e.g.* in the Mirrlees Review (2011) or Sørensen (2005), above-normal returns should thus be taxed at a higher rate than normal returns which is precisely what is sought to be achieved with the RRA.

Since the reform, the combined statutory tax rate (corporate income tax rate plus personal income tax rate) on above-normal returns to equity income has been 48%. This is pretty much in line with current labour income tax rates. Table 5 shows the marginal labour income tax rates (including social security contributions) for self-employed individuals, small incorporated business owners and wage earners, separately for the lowest and highest labour income tax bracket. All rates are relatively close to the 48% statutory tax rate on capital income above the normal return, so that the incentives for misreporting the genuine type of income are contained. How large the benefits of the tax reform have been from the perspective of the income shifting problem depends on the scale of income shifting that was prevalent in the previous system, but little is known about this.

**Table 5. Marginal labour income tax rates**

	Lowest tax bracket	Highest tax bracket
<i>Self-employed individuals:</i>	39.0%	51.0%
<i>Small incorporated business owners:</i>	43.7%	54.3%
<i>Wage earners:</i>	43.7%	54.3%

Source: Ministry of Finance.

For large enterprises resident in Norway with ready access to the international capital market, the level and design of corporate income taxation will likely be the most important determinant within the tax system for the attractiveness of the location. Since this did not change, their conditions to invest should not have changed as a result of the reform. By contrast, for small and newly established companies relying on Norwegian equity, the provision of capital will, in addition to corporate income taxation, also depend on capital income taxation at the personal level. When below-normal returns are treated symmetrically to above-normal returns, the primary determinant of the distortions to investment through the tax system is the ETR on the normal return. In the absence of such symmetric treatment, the taxation of above-normal returns is likely to add to the distortions to investment as well. The tax reform of 2006 effectively increased the tax rates on dividends and capital gains above the normal return without providing for a fully symmetric treatment of below-normal and above-normal returns. This has weakened the neutrality properties of the RRA.

To limit the detrimental effects of capital taxation on investment, the RRA has the purpose of keeping the taxation of the normal return lower than it would otherwise be. However, the pure existence of the RRA in Norway does not mean that the normal return on equity income is in fact taxed less than above-normal returns. It merely means that the normal return is taxed less than it would be without the RRA. The normal return is usually approximated by the return to government bonds. Hence, as Table 4 shows, the taxation of purely inflationary gains implies that the (real) normal return to equity income is taxed at 56% for people not paying the wealth tax and 113% for people paying the wealth tax. Since above-normal returns are taxed at 48%, the normal return is in fact taxed more than above-normal returns, despite the RRA, whether or not a person is a wealth tax payer.

In some sense, it appears inconsistent to tax-exempt the normal return through the RRA and then tax the normal return through the wealth tax. However, in the absence of the RRA but with the same statutory rates, the ETR on the normal return to equity income would be even higher: about 100% for people not paying the wealth tax and 150% for people paying the wealth tax. A reasonably large fraction of the equity of Norwegian firms is financed by domestic sources. Removing the RRA would therefore significantly raise the funding costs of these firms, especially as a substantial part of the financial capital is likely to come from the 17% of the adult population paying the wealth tax (see Figure 2).

*An allowance for corporate equity (ACE) would have been more suitable for attracting investment*

An alternative to the RRA is an allowance for corporate equity (ACE), originally proposed by the Capital Taxes Group of the Institute for Fiscal Studies (1991). Table 6 summarises the key characteristics of the RRA and an ACE. Whereas the RRA taxes equity income at the statutory corporate income tax rate of 28% at the corporate level and exempts the normal return from taxation at the personal level, an ACE exempts the normal return from taxation at the corporate level and taxes equity income at the statutory capital income tax rate of 28% at the personal level. Put simply, the RRA effectively amounts to a reduction in the capital income tax rate at the personal level (relative to no allowance) and an ACE to a reduction in the corporate income tax rate (relative to no allowance). In a closed economy, the RRA and an ACE are equivalent.

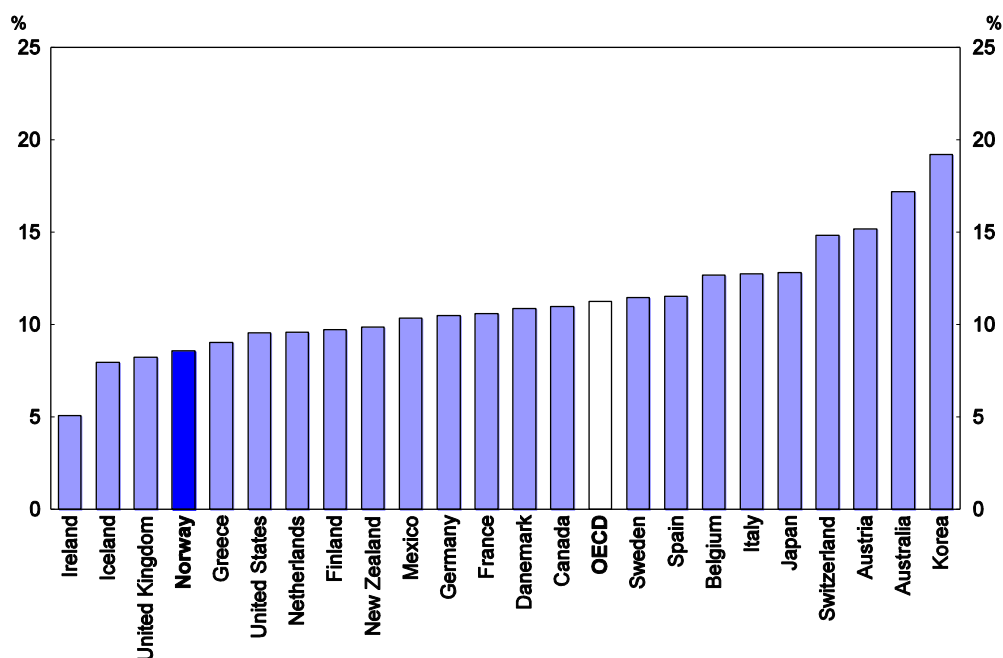


**Table 6. Statutory tax rates for a Norwegian resident investing in Norwegian equity**

	Rate of Return Allowance (RRA)	Allowance for Corporate Equity (ACE)
<i>Corporate level:</i>	Return fully taxed at 28%	Normal return tax-exempt Above-normal return taxed at 28%
<i>Personal level:</i>	Normal return tax-exempt Above-normal return taxed at 28%	Return fully taxed at 28%

This, however, is no longer the case in a relatively open economy like Norway. The RRA reduces the tax levy for Norwegian investors, even if they invest in companies abroad. By contrast, an ACE would reduce the tax levy on investments in Norway independent of the residence of investors. It is well-known that in a small open economy the corporate income taxes faced by international investors are likely a more important determinant of investment than the capital income taxes at the personal level faced by domestic investors. Accordingly, an ACE would have been more effective than the RRA in attracting more investment to Norway. Jacobsen (2008) uses the same arguments to make a similar point. Note as well that an ACE would have had the identical effects with respect to the primary objective (to prevent the tax-motivated shifting of income) as the RRA.

Is there a case for switching now from the RRA to an ACE? The answer depends mainly on the importance of attracting more investment to Norway. Two pieces of evidence may help. Mainland business investment as a share of mainland GDP lies at the lower end (Figure 9) and the level of the corporate income tax rate at the upper quarter of all OECD countries (Figure 10). While these factors raise some significant concerns about the attractiveness to invest in Norway, they do not on their own make a case for urgent reform of the RRA. Other changes to the tax system, such as removing the preferential treatment of housing or the very high ETRs for wealth tax payers, could be more important. However, corporate income taxes have been falling for a number of years across OECD countries. If this trend was to continue and re-initiate discussions about cuts in the corporate income tax rate in Norway, a shift from the RRA to an ACE seems to be a very attractive policy option. Contrary to cutting the corporate income tax rate, this would leave the other features of the tax system, notably the income-shifting problem, intact.

**Figure 9. Non-oil business investment in international comparison**As a percentage of GDP, 2010<sup>1</sup>

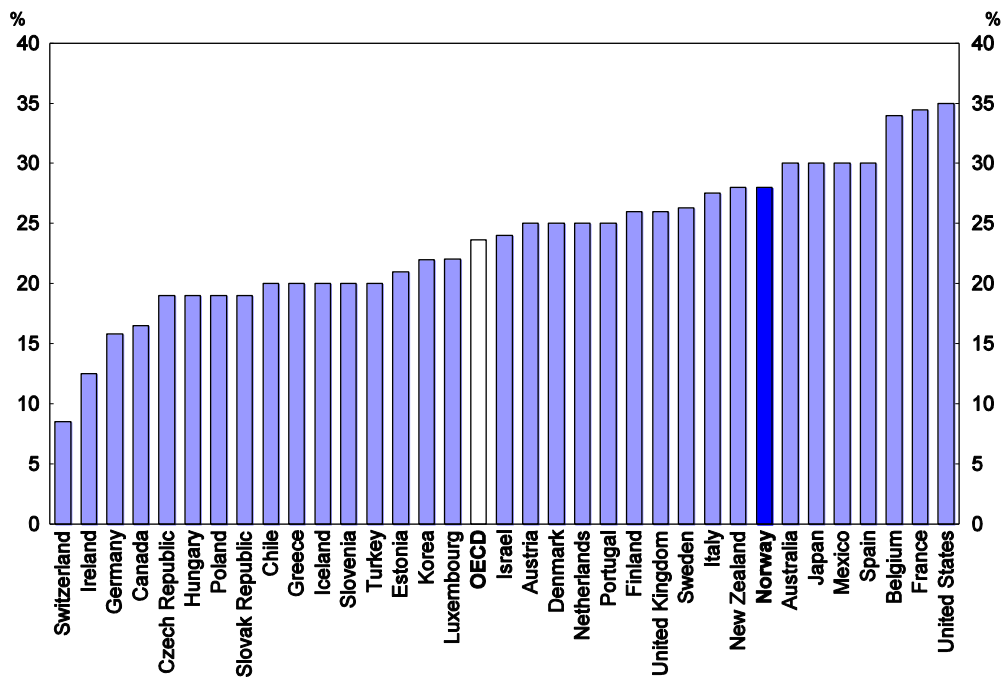
Note: Data for Norway refer to mainland. OECD area is the simple average of OECD countries for which data are available.

1. Or latest year available.

Source: OECD Economic Outlook database.

Using a switch from the RRA to an ACE to effectively cut the corporate income tax rate would also solve two problems in the current system: the non-symmetric treatment of below-normal and above-normal returns, and the non-neutrality between debt finance and equity finance. At the moment, the RRA is given to the investor owning the asset at the end of the calendar year, regardless of the actual time it has been in his possession. It would be practically impossible to keep track of the precise period of ownership for every taxpayer. This system, however, provides incentives to increase the portfolio of shares around New Year to increase the RRA. Such year-end trading is possible because some foreign investors are not entitled to the RRA. To counteract that, the investor loses any unutilised RRA at the time he sells the asset. The unwelcome consequence of this in turn is that the investor is no longer guaranteed a full offset of below-normal against above-normal returns. Similar problems would not arise with an ACE system where the allowance would be awarded when the tax on the corporate profits would be due.

Figure 10. Statutory corporate income tax rate<sup>1</sup>, 2011



Note: OECD area is the simple average of OECD countries for which data are available.

1. Basic central government statutory (flat or top marginal) corporate income tax rate, measured gross of a deduction (if any) for sub-central tax.

Source: OECD Tax database.

The RRA achieves neutrality between debt finance and equity finance for a Norwegian investor (Table 7). For a foreign investor, however, while interest is deductible at the corporate level (which is of benefit to the foreign investor), the normal return to equity income is exempted from taxation only at the personal level (which is *not* of benefit to the foreign investor). The RRA fails to fix the discrimination of equity finance versus debt finance for foreign investors, thus providing multinational enterprises with incentives to undercapitalise their Norwegian subsidiaries. Replacing the RRA with an ACE would remove this anomaly, by ensuring that both the normal return to debt and the normal return to equity be exempted at the corporate level. This is one of the reasons why Griffith, Hines and Sørensen (2010) favour an ACE over the RRA.

**Table 7. Statutory tax rates on the normal return of investing in Norway**

	Rate of Return Allowance (RRA)		Allowance for Corporate Equity (ACE)	
	Debt	Equity	Debt	Equity
<i>Norwegian investor:</i>	28%	28%	28%	28%
<i>Foreign investor:</i>	Personal tax rate in home country	28% + personal tax rate in home country	Personal tax rate in home country	Personal tax rate in home country

The revenue impact of a switch from the current RRA to an ACE could go either way and would require model-based estimates. These would need to compare the “tax expenditure” through the RRA for Norwegian investors in domestic and foreign companies to the “tax expenditure” through an ACE for domestic and foreign companies locating in Norway. Importantly, they should account for the expected rise in business investment (and thus corporate income tax revenues) and productivity (and thus labour income tax revenues) in Norway that such a reform would entail. To limit the revenue loss through an ACE and prevent windfall gains to the owners of “old capital” already installed, the initial equity base should be zero for tax purposes, so that the ACE would be granted only for additions to the equity base undertaken after the time of the reform (Griffith, Hines and Sørensen, 2010).

To date, the two most important experiments with an ACE have been the profit tax in Croatia, which allowed a deduction for an imputed return on equity from 1994 to 2001, and the introduction of an ACE in Belgium in 2006. Keen and King (2002) argue that the Croatian ACE in many ways worked rather well. The experience with the Belgian ACE has been broadly positive from the point of implementation, although it also underscores the importance of careful design. For example, revenues from the corporate income tax shrank in the immediate years after the reform, partly because under pressure from lobbying the ACE was applied not only to new, as recommended in this paper, but also existing equity.

One concern in many OECD countries are tax avoidance and evasion of capital income taxation (both at the corporate and the personal level) in a world of increasing international capital mobility. To promote effective worldwide cooperation in tax matters, the OECD has developed standards that have been endorsed by the more than 100 member jurisdictions of the Global Forum on Transparency and Exchange of Information for Tax Purposes. Norway has been an active member of the Global Forum since its creation. The peer review in OECD (2011b) documents that, notwithstanding some imperfections, Norway’s practices with respect to exchange of information in tax matters are of very high standard.

### **Local property taxation**

In 2010, 309 of the 430 municipalities exercised their right to levy a local tax on property at a rate between 0% and 0.7%. The local property tax raises very little revenue, representing only a tiny fraction of the entire revenue of all municipalities. If a municipality chooses to levy a property tax, it must decide whether to levy it: *i*) on all properties; *ii*) only on mills and factories; *iii*) only on all properties in urban areas; *iv*) only on mills and factories and all properties in urban areas; *v*) only on all commercial properties including mills and factories; or *vi*) only on all commercial properties including mills and factories and all properties in urban areas. Options *i*) and *ii*) are the most common among the municipalities that charge a local property tax (Table 8). No municipality has taken up option *iii*), while options *v*) and *vi*) have only been introduced in 2011.

**Table 8. Use of the local property tax, 2010**

<i>Municipalities charging no property tax:</i>	121
<i>Municipalities charging property tax:</i>	309
All properties in the municipality	145
Mills and factories	129
All properties in urban areas	0
Mills, factories and all properties in urban areas	35

Source: Statistics Norway.

Revenues from local taxation to complement transfers from the national government are useful since they provide municipalities with some flexibility over the level and quality of the public services they are responsible for (Tiebout, 1956). Property values may indeed be a suitable tax base for such purposes, as they are, at least to a rough approximation, related to the consumption level of local public services, such as waste or cleaning. In other words, more expensive houses are typically bigger and hence produce more waste and require more street cleaning. Current revenue levels are consistent with this interpretation of the local property tax as a “benefit tax”. They should certainly not be raised markedly if the other recommendations in this paper to increase housing taxation – preferably through the introduction of the taxation of imputed rents and capital gains on owner-occupied housing at the national level – are followed through.

*The central government should streamline the guidelines on local taxation of property and its valuation*

At the moment, municipalities are free to decide among the six options to tax local property, and, theoretically, competition between them should encourage them to adopt the efficient choice. Realistically, this is unlikely, given limited mobility across municipalities and potential influence of political considerations on the design of the tax. Insofar as local property taxes represent benefit taxes, they should apply to all properties in the municipality in a similar way, since all properties in the municipality – both housing and business, in urban and rural areas – benefit from the public services financed with the revenue. In addition, to the extent that local property taxes are suitable to capture location-specific rents, they should indeed be set high. However, in such cases, corporate profits would seem the more appropriate tax base, an approach which is already used in the case of hydro power. Local property taxation could thus be improved by working towards the following reform of the national guidelines. Municipalities should continue to be able to set the local property tax at any level between 0% and 0.7% of the property values. The tax would, however, be due on all housing and business properties. In addition, extra charges may be applied to companies whose profits to a significant degree rely on location-specific rents.

Legislation requires the taxable values in the local property tax to reflect the market values. In reality, this is rarely the case. The taxable values are updated only every ten years, and municipalities frequently apply reductions that significantly reduce them below the market values. It is also common that differential rates are imposed on housing and commercial property. Except for extra charges that are clearly justified by location-specific rents, the national government should not provide municipalities with the freedom to grant any exemptions. These are only likely to cater to special interests and be inefficient.

In most municipalities, the property values used for the local property tax differ from those used for the wealth tax. Above, an investigation into the wealth tax was recommended. Should the wealth tax be retained, then the national government should strive to ensure that the same property values are used for

both tax bases. This would almost certainly lead to lower administrative costs. In any case, a system should be put in place in which property values are updated at a higher frequency than now, say every three years.

### **The stamp duty on property transactions**

A stamp duty of 2.5% of the market value of a property is due at the point it is legally transferred. The stamp duty must be regarded as a tax (not a fee) as it is not intended to cover the cost of the authorities for the registering of the acquired property. For this, a separate registration fee exists. The origin of stamp duties in most countries is that they are hard to avoid. In Norway, some property transactions are exempt from stamp duty, notably cooperatives. A cooperative is a contractual relationship that specifies that the property is jointly owned by all members and each member holds a “stake” in the cooperative proportional to the area of her flat.

*To promote mobility, the stamp duty should be abolished*

By increasing the costs of buying and selling houses, the stamp duty discourages people from moving to areas where their labour is in greatest demand (for empirical evidence, see *e.g.* Haurin and Gill, 2002; Van Ommeren and Van Leuvensteijn, 2005). Transaction taxes on house purchases have been shown to be an inefficient way of raising government revenue (OECD, 2009); the stamp duty should hence be discontinued. House prices are likely to have capitalised in the stamp duty; its abolition could therefore lead to an increase in house prices. In light of their currently high levels, the timing should thus be considered carefully. In any case, changes should be gradual to contain the windfall gains to current owners.

### **The economic consequences of the recommended reform measures**

This final part of the paper analyses the consequences of the recommended reform measures for economic growth, the public finances, the degree of redistribution through the tax system and the housing market.

*The tax policy recommendations are conducive to enhanced economic growth and efficiency ...*

Box 3 summarises the key tax policy recommendations. These should have beneficial effects for the allocation of capital and work and investment incentives, thereby promoting economic growth. As stressed in *Going for Growth* OECD (2011a), increasing the taxation of owner-occupied housing, preferably by taxing imputed rents and capital gains, would reduce the misallocation of capital that is likely present in the current system. Abolishing the stamp duty would promote residential and labour mobility. Phasing out or reducing the wealth tax would improve investment and work incentives, while eliminating loopholes in gift and inheritance taxation would facilitate intergenerational mobility.

*... while their budgetary and redistributive implications could be broadly neutral*

The proposed measures could be designed in a revenue-neutral way. An example of a possible reform package is illustrated in Table 9. The introduction of taxes on imputed rents and capital gains from owner-occupied housing and higher gift and inheritance taxation would increase tax revenue, whereas the newly proposed personal allowance on capital income and phasing out the wealth tax and stamp duty would have the opposite effect. The table presents estimates for the fiscal impact of three measures: the taxation of imputed rents and capital gains from owner occupation, phasing out the wealth tax and abolishing the stamp duty. Their sum is positive, indicating a surplus of NOK 23 (= 41 - 13 - 5) billion. This could be larger; the estimated budgetary gain from taxing owner-occupied housing is based on the historically low annual return of 3.3% and that from phasing out the wealth tax does not account for any behavioural effects, such as improved incentives to work and invest. Even with these conservative estimates, there

would be enough fiscal room to set the personal allowance on capital income at a meaningful level, especially if the level of gift and inheritance taxes was increased. The precise budgetary implications of the personal allowance and gift and inheritance taxation would depend on the level of the allowance and the changes to the tax base and tax rates for gifts and inheritances.

**Table 9. Budgetary and redistributive consequences of possible reform measures**

Possible reform measures	Budgetary consequences	Redistributive consequences
Introduce the taxation of owner-occupied housing	+ NOK 41 billion	+
Phase out the wealth tax	- NOK 13 billion	--
Introduce a personal allowance on capital income	- ?	+
Increase gift and inheritance taxation	+ ?	++
Abolish the stamp duty	- NOK 5 billion	-

*Note:* Two signs in the column “Redistributive consequences” signal a strong effect. The numbers in the column “Budgetary consequences” were provided by the Ministry of Finance.

From a political economy perspective, the progressive nature of the personal allowance on capital income and increased gift and inheritance taxation may be useful to garner political support for a phase-out of the wealth tax if all three measures were bundled in the same reform package. The example of a possible reform package is likely broadly neutral with respect to the degree of redistribution through the tax system (Table 9). Aligning the taxation of the returns to owner-occupied housing with rental housing would reduce inequality. The current system discriminates against less well-off citizens who are more likely to be tenants (and not home owners) and as a consequence bear a significant part of the burden of the tax their landlords must pay on rents. Similarly, a personal allowance on capital income and particularly higher gift and inheritance taxation would strengthen the progressivity of the tax system. The abolition of the stamp duty and phase-out of the wealth tax would benefit better-off households relatively more, although drawing this conclusion for the wealth tax abstracts from wage rises workers may receive as a result of increased productivity. The redistributive effects could be further strengthened by trading off a higher increase in gift and inheritance taxation with a more generous personal allowance.

*Higher taxation of housing is likely to reduce household debt but also housing affordability*

A key recommendation of this paper is to tax owner-occupied housing like other asset classes, preferably through the taxation of imputed rents and capital gains from owner-occupied housing, which, even after phasing out the wealth tax, would likely lead to an increase in the taxation of housing. Would this help rein in house prices and hence household debt which have experienced a significant increase over the last decade? A useful point of departure is that the housing cost approximates the present value of expected rents and the house price (as observed in the data) the housing cost minus the present value of expected tax liabilities. Accordingly, the short-run effect of a rise in the taxation of housing would be a drop in the house price, equal to the present value of expected increases in tax liabilities. The housing cost, however, would stay the same since the increased tax liabilities should to a large degree become capitalised in the house price.

With no other shocks to the economy, in the long run more capital would flow from housing to other forms of investment with higher pre-tax rates of return. This would raise the pre-tax returns (*i.e.* pre-tax rents) from housing investment and therefore lift the housing cost above the pre-reform level. With the housing cost rising, the house price would pick up accordingly. The higher housing cost would reduce the demand for housing; the house price would consequently stay somewhat below the pre-reform level. The

implication is that the higher taxation of housing proposed in this paper is likely to have a dampening effect on house prices and hence household debt, but it is also likely to increase the housing cost and thus decrease the affordability of housing. This is intuitive; increased taxation of housing is bound to make housing more expensive.

### **Box 3. Summary of recommendations on capital taxation**

#### **Capital income taxation and wealth taxation:**

- Align the taxation of different asset classes. This should include reducing the implicit tax subsidy to owner-occupied housing and removing the special treatment of real estate, business property and individual private (IPS) pensions in the wealth tax.
- To tax owner-occupied housing like other asset classes, preferably imputed rents and capital gains from owner-occupied housing should be subject to the standard capital income tax rate of 28%. An alternative would be the introduction of a national tax on the market value of owner-occupied properties.
- If neither imputed rent nor national property taxation is introduced, another possibility would be to remove mortgage interest deductibility. This would need to weigh up the benefits from higher effective taxation of owner-occupied property against abandoning the symmetric treatment of different sources of finance and interest that it would imply.
- Investigate which persons participate in the tax-favoured individual private (IPS) pension scheme and the impact of the tax breaks on their total saving. If the results show that IPS pensions are primarily taken up by more well-off persons with no significant change to their saving, phase out all tax breaks to the scheme.
- Effective tax rates through capital income and wealth taxes are very high. Investigate the impact of the wealth tax on tax avoidance and evasion and incentives to save and invest. If the growth-equity trade-off is too unfavourable to growth, phase out or reduce the wealth tax.
- Phasing out the wealth tax would align effective tax rates on capital income with labour income tax rates of high income earners. If the wealth tax is phased out, consider introducing a personal allowance on capital income to bring effective tax rates on capital income closer in line with labour income tax rates also for low income earners.

#### **Gift and inheritance taxation:**

- Replace the current array of allowances, which facilitate tax avoidance by the wealthy, with a single lifetime allowance for all taxable gifts and inheritances from all donors.
- Broaden the tax base by including *inter vivos* transfers to all types of beneficiaries and removing tax breaks to farms, non-listed shares and partnerships.
- Tax capital gains on assets at the time of inheritance.

#### **Corporate income taxation:**

Should other countries continue to lower their corporate income tax rates, replace the current rate of return allowance (RRA) with an allowance for corporate equity (ACE).

#### **Local property taxation:**

- Harmonise the base of the local property tax across municipalities, so that all housing and business properties are included at full market valuation.
- Update property values more frequently than currently, e.g. every three years. The same property values should be used for the local property tax as for the wealth tax.

#### **Stamp duty:**

Abolish the stamp duty on property transactions to promote mobility. Due to the possible effect on house prices, the timing should be considered carefully.



## BIBLIOGRAPHY

- Arnold, J. M., B. Brys, C. Heady, Å. Johansson, C. Schweltnus and L. Vartia (2011), “Tax Policy for Economic Recovery and Growth”, *Economic Journal*, 121(550), pp.-F59-F80.
- Atkinson, A. B., and J. E. Stiglitz (1976), “The Design of Tax Structure: Direct versus Indirect Taxation”, *Journal of Public Economics*, 6(1-2), pp. 55-75.
- Atanasio, O., and M. Wakefield (2010), “The Effects on Consumption and Saving of Taxing Asset Returns”, in: *Dimensions of Tax Design*, Oxford University Press, Oxford.
- Banks, J., and P. Diamond (2010), “The Base for Direct Taxation”, in: *Dimensions of Tax Design*, Oxford University Press, Oxford.
- Boadway, R., E. Chamberlain and C. Emmerson (2010), “Taxation of Wealth and Wealth Transfers”, in: *Dimensions of Tax Design*, Oxford University Press, Oxford.
- Bond, S., and M. P. Devereux (1995), “On the Design of a Neutral Business Tax under Uncertainty”, *Journal of Public Economics*, 58(1), pp. 57-71.
- Brewer, M., E. Saez and A. Shephard (2010), “Means-Testing and Tax Rates on Earnings”, in: *Dimensions of Tax Design*, Oxford University Press, Oxford.
- Chamley, C. (1986): “Optimal Taxation of Capital Income in General Equilibrium with Infinite Lives”, *Econometrica*, 54(3), pp. 607-622.
- Devereux, M. P., and R. Griffith (2002), “Evaluating Tax Policy for Location Decisions”, *International Tax and Public Finance*, 10(2), 107-126.
- Diamond, P., and E. Saez (2011), “The Case for a Progressive Tax: From Basic Research to Policy Recommendations”, *Journal of Economic Perspectives*, 25(4), pp. 165-190.
- Golosov, M., and A. Tsyvinski (2006), “Designing Optimal Disability Insurance: A Case for Asset Testing”, *Journal of Political Economy*, 114(2), pp. 257-279.
- Griffith, R., J. R. Hines and P. B. Sørensen (2010), “International Capital Taxation”, in: *Dimensions of Tax Design*, Oxford University Press, Oxford.
- Haurin, D. R., and H. L. Gill (2002), “The Impact of Transaction Costs and the Expected Length of Stay on Homeownership”, *Journal of Urban Economics*, 51(3), pp. 563-584.
- Hines, J. R. (1999), “Lessons from Behavioral Responses to International Taxation”, *National Tax Journal*, 52(2), 305-322.

- Institute for Fiscal Studies (1991), *Equity for Companies: A Corporation Tax for the 1990s*, Institute for Fiscal Studies, London.
- Jacobs, B. (2011), “From Optimal Tax Theory to Applied Tax Policy: Lessons from the Netherlands for Norway”, mimeo, Erasmus University Rotterdam.
- Jacobs, B., and A. L. Bovenberg (2010), “Human Capital and Optimal Positive Taxation of Capital Income”, *International Tax and Public Finance*, 17(5), pp. 451-478.
- Jacobsen, M. R. (2008), “Norwegian Economic National Report”, in: *Yearbook for Nordic Tax Research 2008: Taxation of Capital and Wage Income; Towards Separated and or More Integrated Personal Systems*, DJØF Publishing, Copenhagen.
- Joumard, I., M. Pisu and D. Bloch (2012), “Less Income Inequality and More Growth – Are They Compatible? Part 3: Income Redistribution via Taxes and Transfers across OECD Countries”, OECD Economics Department Working Paper, No. 926, Paris.
- Judd, K. L. (1985), “Redistributive Taxation in a Simple Perfect Foresight Model”, *Journal of Public Economics*, 28(1), pp. 59-83.
- Keen, M., and J. King (2002), “The Croatian Profit Tax: An ACE in Practice”, *Fiscal Studies*, 23(3), pp. 401-418.
- Kopczuk, W., “Economics of Estate Taxation: A Brief Review of Theory and Evidence”, *Tax Law Review*, 63(1), pp. 139-157.
- LO (2011), “LO and the Wealth Tax”, Press Announcement, LO, Oslo.
- Mankiw, N. G., M. Weinzierl and D. Yagan (2009), “Optimal Taxation in Theory and Practice”, *Journal of Economic Perspectives*, 23(4), pp. 147-174.
- Ministry of Finance (2011a), *The National Budget 2012*, Ministry of Finance, Oslo.
- Ministry of Finance (2011b), *Report No. 11 to the Storting: Evaluation of the 2006 Tax Reform*, Ministry of Finance, Oslo.
- Mirrlees Review (2011), *Tax by Design*, Oxford University Press, Oxford.
- OECD (2009), *Economic Policy Reforms: Going for Growth 2009*, OECD Publishing, Paris.
- OECD (2011a), *Economic Policy Reforms: Going for Growth 2011*, OECD Publishing, Paris.
- OECD (2011b), *Global Forum on Transparency and Exchange of Information for Tax Purposes Peer Reviews: Norway 2011*, OECD Publishing, Paris.
- Piketty, T., and E. Saez (2011), “A Theory of Optimal Capital Taxation”, mimeo, Paris School of Economics and University of California at Berkeley.
- Salanie, B. (2003), *The Economics of Taxation*, MIT Press, Cambridge, Massachusetts.
- Södersten, J., and T. Lindhe (2011), “The Norwegian Shareholder Tax Reconsidered”, Department of Economics Working Paper, No. 2011:6, Uppsala University.

Sørensen, P. B. (2005), “Neutral Taxation of Shareholder Income”, *International Tax and Public Finance*, 12(6), pp. 777-801.

Swedish Ministry of Finance (2007), *Taxation of Capital and Wage Income; Towards Separated or More Integrated Personal Tax Systems*, Ministry of Finance, Stockholm.

Tax Committee (2003), *Press Release: Tax Committee Recommendations*, Ministry of Finance, Oslo.

Tiebout C. M. (1956), “A Pure Theory of Local Expenditures”, *Journal of Political Economy*, 64(5), pp. 416-424.

Van Ommeren J., and M. Van Leuvensteijn (2005), “New Evidence of the Effect of Transaction Costs on Residential Mobility”, *Journal of Regional Science*, 45(4), pp. 681-702.

## ANNEX A1

## EFFECTIVE TAX RATES ON SAVINGS IN DIFFERENT ASSET CLASSES

The general formula for the effective tax rate (ETR) in Table 4, defined as the percentage reduction in the annual real rate of return on an extra NOK of saving caused by the tax system, is given by

$$\text{ETR} = \frac{(\text{pre tax real rate of return}) - (\text{post tax real rate of return})}{\text{pre tax real rate of return}}.$$

The pre-tax real rate of return  $r^{pre}$  is computed as

$$r^{pre} = \frac{1+i}{1+\pi} - 1,$$

where  $i$  denotes the nominal rate of return and  $\pi$  the inflation rate. It is convenient to decompose the nominal rate of return  $i$  on an asset additively into the normal rate of return  $i_N$  and the above-normal rate of return  $i_A$ , such that

$$i = i_N + i_A.$$

The post-tax real rate of return  $r_N^{post}$  on interest-bearing accounts, shares, owner-occupied housing and rental housing earning the normal return is computed as

$$r_N^{post} = \frac{[1+i_N \cdot (1-t_N)] - I(W > \bar{W}) \cdot 1.1\% \cdot v_W \cdot [1+i_N \cdot (1-t_N)]}{1+\pi} - 1.$$

The indicator function  $I(\cdot)$  equals 1 if the individual's tax-assessed wealth  $W$  exceeds  $\bar{W} = \text{NOK } 750\,000$  and 0 otherwise. Hence, the second term in the numerator drops out for an individual not paying the wealth tax. Such an individual earns the normal rate of return  $i_N$  of which she can keep unity minus the statutory capital income tax rate  $t_N$ . This is 28% for interest-bearing accounts, shares and rental housing and 0% for owner-occupied housing (see Table 3).

An individual for whom  $W > \bar{W}$  will in addition have to pay the wealth tax on the invested stock. The rate of the wealth tax is 1.1%, and  $v_W$  is the valuation of the asset class in the base of the wealth tax. This is 100% for interest-bearing accounts and shares, 25% for owner-occupied housing and 40% for rental housing (see Figure 5). Wealth tax payments are also assumed to be due on the nominal rate of return after the payment of the capital income tax.

Decomposing the post-tax real rate of return  $r^{post}$  on an asset earning above-normal returns into the post-tax real rate of return on the normal return and the post-tax real rate of return  $r_A^{post}$  on the above-normal return,

$$r^{post} = r_N^{post} + r_A^{post},$$

yields

$$r^{post} = r_N^{post} + \frac{i_A \cdot (1 - t_A) - I(W > \bar{W}) \cdot 1.1\% \cdot v_W \cdot i_A \cdot (1 - t_A)}{1 + \pi}.$$

The rate of return allowance (RRA) implies that the statutory tax rate  $t_A = 48\%$  on the above-normal return to shares is higher than the statutory tax rate  $t_N = 28\%$  on the normal return. Since the RRA applies only to shares, for all other asset classes  $t_A = t_N$ .

The computation of the ETRs on individual private (IPS) pensions requires a number of additional assumptions which are spelled out in the note to Table 4.

This table displays the ETRs on the real income from different asset classes when the nominal rate of return is 4% and the inflation rate 2%. The choices for these variables correspond closely to the nominal rate of return to government bonds and consumer price inflation in Norway since 2000. As stressed in the Mirrlees Review (2011) and other sources, the primary determinant of distortions to saving and investment decisions through the tax system is the magnitude of the ETR on the normal rate of return. Table 4 therefore takes the return to government bonds, which is usually used to approximate the normal return, as the benchmark case.

The actual normal (or risk-free) rate of return (which is difficult to observe) may conceivably have a real rate of return that is less than 2%. Panel A in Table A1.1 thus presents the ETRs on different asset classes for the case when the nominal rate of return is 3% (and the inflation rate continues to be 2%). Since the implied real return is now lower than with a nominal rate of return of 4%, while inflation is the same, the ETRs are higher than in Table 4.

Given full offset of below-normal against above-normal returns, the ETR on the normal return is the primary determinant of distortions to saving and investment decisions through the tax system even for risky assets demanding a risk premium (Bond and Devereux, 1995). However, the RRA does not treat below-normal returns fully symmetrically to above-normal returns. By implication, some investments would not be conducted even if only above-normal returns were taxed. The distortions to saving and investment decisions, when taking institutional limitations to a full offset of below-normal against above-normal returns as given, should then be gauged by an imputed rate of return which includes a risk premium (*e.g.* Griffith, Hines and Sørensen, 2010).

Panels B and C in Table A1.1 assume a (nominal) normal rate of return of 4%, an inflation rate of 2% and a nominal rate of return of 5% and 6%, respectively. It is to be borne in mind that a real rate of return of 3-4% on interest-bearing accounts may not necessarily be plausible. Above-normal returns on shares incur an extra tax of 28%. Since this additional 28% tax on above-normal returns applies only to shares, the ETR on shares, with and without the wealth tax, rises relative to the ETRs on interest-bearing accounts, owner-occupied housing and rental housing, when compared to Table 4. Otherwise, a generally similar pattern emerges for these choices of values.

**Table A1.1. Effective tax rates on the real income from different assets under alternative assumptions**

	Without wealth tax	With wealth tax
A. 3% nominal rate of return, 2% inflation rate		
Interest-bearing accounts	84%	196%
Shares	84%	196%
Owner-occupied housing	0%	28%
Rental housing	84%	129%
Individual private (IPS) pensions	73%	73%
B. 5% nominal rate of return, 2% inflation rate		
Interest-bearing accounts	47%	85%
Shares	53%	91%
Owner-occupied housing	0%	9%
Rental housing	47%	62%
Individual private (IPS) pensions	25%	25%
C. 6% nominal rate of return, 2% inflation rate		
Interest-bearing accounts	42%	71%
Shares	52%	81%
Owner-occupied housing	0%	7%
Rental housing	42%	53%
Individual private (IPS) pensions	20%	20%

*Note:* The calculations are done for a (nominal) normal rate of return of 3% in Panel A and 4% in Panels B and C. The effective tax rates (ETRs) apply to an extra NOK of saving by a Norwegian resident investing in a Norwegian asset. The ETRs for shares are based on nominal depreciation rates which are a reasonable approximation to how the Norwegian tax system functions as tax depreciation depends on the cost price (and not the repurchase price) and the expected life span of the asset. The ETRs for owner-occupied housing and rental housing are independent of the degree of debt finance versus equity finance when assuming that mortgage interest rates equal savings interest rates. The ETRs for IPS pensions are based on a tax rate on pension income of 39% and the assumption that the initial savings stay in the scheme for 15 years and are then paid out over a period of 15 years (as an annuity).

*Source:* Ministry of Finance.

## WORKING PAPERS

The full series of Economics Department Working Papers can be consulted at [www.oecd.org/eco/workingpapers/](http://www.oecd.org/eco/workingpapers/)

949. *The short-term effects of structural reforms: an empirical analysis*  
(March 2012) by Romain Bouis, Orsetta Causa, Lilas Demmou, Romain Duval and Aleksandra Zdzienicka
948. *Short-term gain or pain? A DSGE model-based analysis of the short-term effects of structural reforms in labour and product markets*  
(March 2012) by Matteo Cacciatore, Romain Duval and Giuseppe Fiori
947. *Do house prices impact consumption and interest rate?: Evidence from OECD countries using an agnostic identification procedure*  
(March 2012) by Christophe André, Rangan Gupta and Patrick T. Kanda
946. *Assessing the sensitivity of Hungarian debt sustainability to macroeconomic shocks under two fiscal policy reactions*  
(March 2012) by Pierre Beynet and Edouard Paviot
945. *Non-Keynesian effects of fiscal consolidation: an analysis with an estimated DSGE Model for the Hungarian economy*  
(March 2012) by Szilárd Benk and Zoltán M. Jakab
944. *Work incentives and recent reforms of the tax and benefit system in Hungary*  
(March 2012) by Tímea Ladányi and Rafal Kierzenkowski
943. *Building blocks for a better functioning housing market in Chile*  
(February 2012) by Aida Caldera Sánchez
942. *The impact of changes in second pension pillars on public finances in Central and Eastern Europe*  
(January 2012) by Balázs Égert
941. *Improving energy system efficiency in the Czech Republic*  
(January 2012) by Artur Radziwill
940. *Structural change and the current account: the case of Germany*  
(January 2012) by Fabrizio Coricelli and Andreas Wörgötter
939. *Reforming education in England*  
(January 2012) by Henrik Braconier
938. *The nature of financial and real business cycles: The great moderation and banking sector pro-cyclicality*  
(January 2012) by Balázs Égert and Douglas Sutherland
937. *Fiscal consolidation*  
*Part 6. What are the best policy instruments for fiscal consolidation?*  
(January 2012) by Robert P. Hagemann

936. *Fiscal consolidation*  
*Part 5. What factors determine the success of consolidation efforts?*  
 (January 2012) by Margit Molnar
935. *Fiscal consolidation*  
*Part 4. Case studies of large fiscal consolidation episodes*  
 (January 2012) by Hansjörg Blöchliger, Dae-Ho Song and Douglas Sutherland
934. *Fiscal consolidation*  
*Part 3. Long-run projections and fiscal gap calculations*  
 (January 2012) by Rossana Merola and Douglas Sutherland
933. *Fiscal consolidation*  
*Part 2. Fiscal multipliers and fiscal consolidations*  
*(forthcoming)* by Ray Barrell, Dawn Holland and Ian Hurst
932. *Fiscal consolidation*  
*Part 1. How much is needed and how to reduce debt to a prudent level?*  
 (January 2012) by Douglas Sutherland, Peter Hoeller and Rossana Merola
931. *Less income inequality and more growth – Are they compatible?*  
*Part 8. The drivers of labour income inequality – A review of the recent literature*  
*(forthcoming)* by Rafal Kierzenkowski and Isabell Koske
930. *Less income inequality and more growth – Are they compatible?*  
*Part 7. The drivers of labour earnings inequality – An analysis based on conditional and unconditional quantile regressions*  
 (January 2012) by Jean-Marc Fournier and Isabell Koske
929. *Less income inequality and more growth – Are they compatible?*  
*Part 6. The distribution of wealth*  
 (January 2012) by Kaja Bonesmo Fredriksen
928. *Less income inequality and more growth – Are they compatible?*  
*Part 5. Poverty in OECD countries*  
 (January 2012) by Mauro Pisu
927. *Less income inequality and more growth – Are they compatible?*  
*Part 4. Top incomes*  
 (January 2012) by Peter Hoeller
926. *Less income inequality and more growth – Are they compatible?*  
*Part 3. Income redistribution via taxes and transfers across OECD countries*  
 (January 2012) by Isabelle Joumard, Mauro Pisu and Debbie Bloch
925. *Less income inequality and more growth – Are they compatible?*  
*Part 2. The distribution of labour income*  
 (January 2012) by Isabell Koske, Jean-Marc Fournier and Isabelle Wanner