Economic national report – Norway[*]

Taxation of capital and wage income; towards separated or more integrated personal tax systems.

1. Introduction

It is not an exaggeration to claim that the Nordic states pioneered the dual income tax in the late eighties and early nineties, and went further in the direction of tax rate reduction and base broadening than probably any other OECD-country before. The fact that the Nordic states are considered as tremendously ambitious welfare states, combined with small but highly globalised economies, expose a pressure to the welfare society as a consequence of the rapid process of international economic integration. On this background, the implementation the fundamental tax reforms we saw in the beginning of the nineties has to be considered as quite courageous. However, the experience with the dual income tax, at least in Norway, is that it was a huge success and that it improved the redistributive properties of the tax system as well as the allocation of real capital.

The problems raised in the guidelines for the national reports hovering around fundamental characteristics of the dual income tax, and are at the very core of the Nordic tax debate the last decades. This brings up a vast amount of interesting questions and problems for discussion and it is therefore difficult, but necessary, to limit the report to the most important issues related to this broad task. In this report the main focus is on how the dual income tax led to serious problems with income shifting due to the large difference in marginal tax rates on labour and capital income, and how this induced the 2006 tax reform in Norway.

Section 2 presents some descriptive statistics of tax revenues and tax rates, which is asked for in the guidelines. Section 3 deals with the income shifting problems related to the split model, and the 2006 tax reform that introduced a solution to this problem. Section 4 gives a brief discussion on whether the Norwegian tax system is sufficiently sustainable, related to international tax competition and the pressure for reduced taxation.

2. Some descriptive statistics

Table 1 shows the tax revenues in Norway for 1996, 2001 and estimates for 2006. The total tax revenues increased significantly from almost 440 bn. NOK in 1996 to almost 940 bn. NOK in 2006. The total tax revenues are divided to taxes on petroleum activity, production taxes and income taxes. Income taxes are further disaggregated in several components. The table shows a striking development in the tax revenues from petroleum activity, which increase from 42 bn. in 1996 to 224 bn. in 2006. All income related to petroleum activity including taxes, goes into the petroleum fund. 4 % of the fund is then spend in the budget each year. The graphs in figure 1

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shows the development in taxes on persons, taxes on corporations and taxes related to petroleum activity. The figure underpins the enormous increase in petroleum related taxes. There is also a substantial increase in personal income taxes, compared to tax revenues on corporations.

Table 1 shows a decrease in surtax on personal income from 2001 to 2006. This is due to the reduction in the top tax rates on personal income in order to close the gap in the top marginal tax rates on labour and capital income following the 2006 tax reform. The reduction in tax rates took place in 2005 and 2006.

Total taxes on persons is the sum of ordinary and personal income taxes and wealth tax, and does not include social securities contributions.

Table 1: Total tax revenues, mill. NOK, 1996, 2001 and 2006. National accounts.

	1996	2001	2006 (est.)
Total tax revenues	**437 155**	**658 040**	**938 515**
Taxes related to petroleum activity	42 455	105 021	223 644
Taxes on production (incl. VAT)	153 496	197 694	259 146
Taxes on income, wealth and social security contributions	241 204	355 326	455 725
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Surtax on personal income	10 515	17 109	11 623
Tax on ordinary income persons (local and central gov.)	100 682	143 773	190 046
Tax on ordinary income companies (local and central gov.)	22 519	38 266	46 643
Wealth tax	5 536	7 175	9 281
Social security contributions - employees	38 743	54 342	69 026
Social security contributions - employers	52 686	76 010	102 485
Other taxes and excise duties	10 523	18 651	26 621
Total taxes on persons	153255	219769	276390
Total taxes on corporations	22540	39477	48897

Source: The Ministry of Finance and Statistics Norway.

Figure 1: Current taxes on persons and corporations 1990 - 2006, mill NOK. National accounts
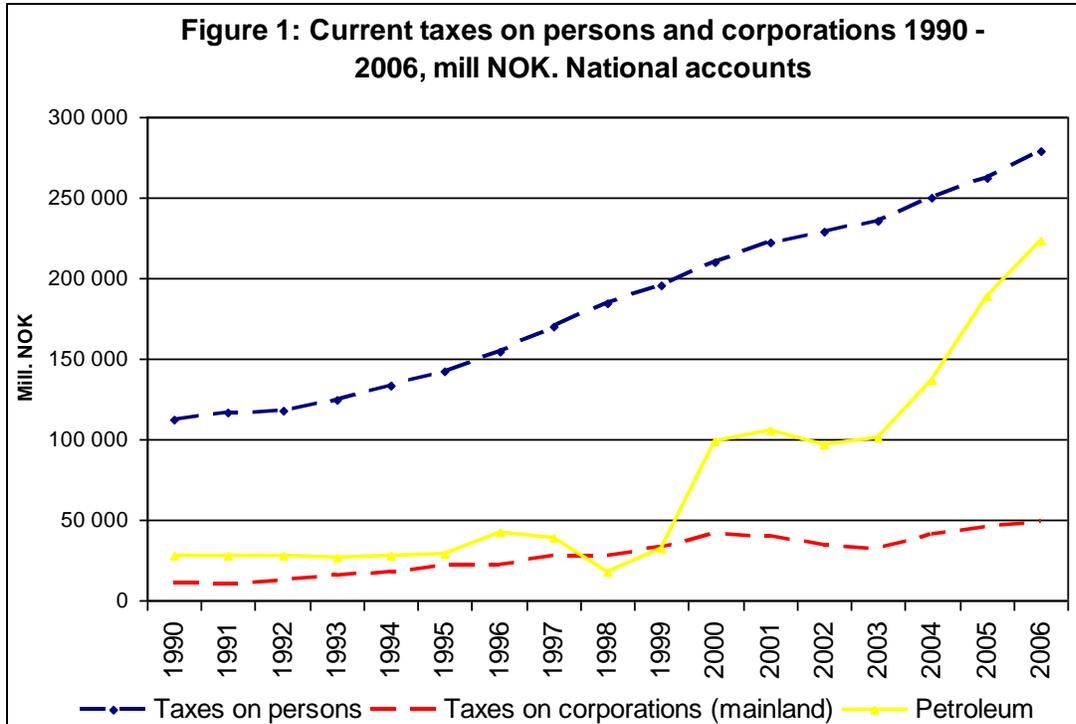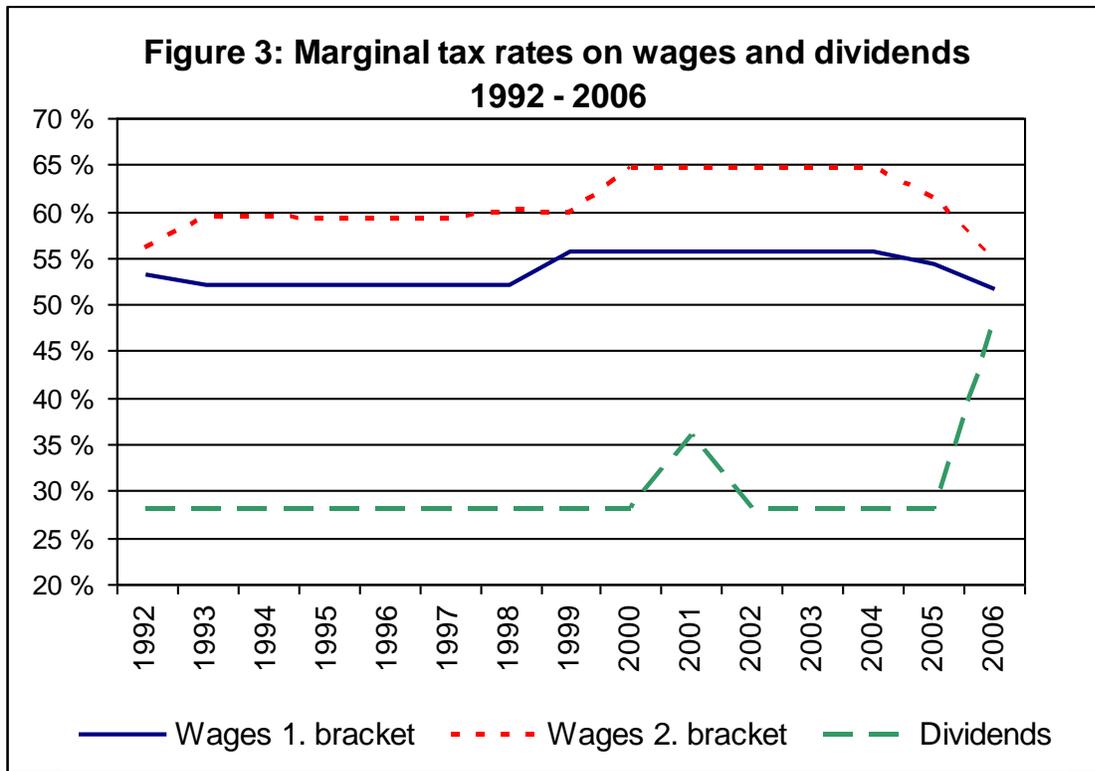

Source: The Ministry of Finance and Statistics Norway.

Figure 2 shows marginal tax rates on labour income at 100 pct. of average wage level, for single persons without children. The figure shows marginal tax rates with an without social security contributions. The upper graph also includes employer's social security contributions, and gives the total tax wedge relative to labour costs. The figure indicates that the average tax rates at this wage level decreased prior to the 1992 tax reform and has been fairly stable since 1992.

Figure 2: Average tax rates on wages, single persons without children

Source: OECDs Taxing Wages 1998-1999 and 2004-2005

Figure 3: Marginal tax rates on wages and dividends 1992 - 2006

Source: The Ministry of Finance.

Figure 3 shows the marginal tax rates on labour income and dividends. The tax rate on dividends is the combined total tax rate on corporate and shareholder level. The tax rates on labour income include employer's and employee's social security contributions, for both surtax brackets. The marginal tax rate for the first bracket can be interpreted as the marginal tax rate at 100 pct. of average wage level. The peak in the graph for marginal tax rate on capital in 2001 shows the 11 pct. dividend tax introduced by the left wing Stoltenberg government that was removed by the left wing Bondevik government the following year. From 2004 the difference between the marginal tax rates of labour income and capital income is dramatically reduced. This was necessary to replace the split model with the shareholder model in the 2006 reform, which is thoroughly discussed below.

3. The dual income tax in Norway – challenges and solutions

3.1 The 1992 tax reform and the introduction of the DIT

In 1992 Norway implemented a major tax reform, of both the income and the corporate taxation. The tax system was transformed in line with the international trend in the tax policy – base broadening combined with lower marginal tax rates. The main objective of the reform was to reduce tax-induced distortions, i.e. increase the efficiency of the tax system, while retaining a redistributive tax system. Another aim was to establish a system, which made the tax compliance easier for the taxpayer.

The reform was based on the following principles:
- *Tax neutrality*. This means neutrality in taxation with respect to different types of investment, organisational structure of the business activity, financial structure (retention, issuing of new shares or debt) and capital income from different sources.
- *Symmetry*. This means equal tax treatment of incomes and deductions. It also implies equal periodical rules for taxable incomes and deductible expenses. Further, all incomes and deductions shall be taxed at equal tax rates.
- *Co-ordination*. This means that deficits are tax deductible against profits.
- *Low tax rates.* Lowering tax rates, other things equal, reduces the tax wedges between economic and taxable profitability of investments. This reduces the motivation for and the profitability of tax planning.
- *Broaden tax bases.* Base broadening implies that taxable income is a more accurate measurement of economic income.

Before 1992 the Norwegian tax system was characterised by high marginal tax rates on labour and capital, combined with extensive deduction possibilities. One particular problem had been that high marginal tax rates for high-income groups corresponded with high tax-reductions due to e.g. interest deductions. This strongly weakened the actual progressivity of the tax system, and consequently the intended distributional effects of the system were undermined.

In the earlier tax system the corporate taxation entailed large distortions in investment and savings decisions. The connection between taxable income and real economic income was weak. This was due to several types of tax allowances into tax deferred funds and accelerated depreciation rates. In addition, the effective tax rate of real capital gains was almost zero. Hence,

the tax system had a major influence on the composition of investments due to the differential treatment of corporate profits across uses and business sectors.

The complexity of the earlier system was troublesome for the tax authorities as well as for the taxpayers, and probably induced high compliance cost. A lot of time and resources were used solely for the purpose of tax planning. Therefore, an additional aim with the 1992 tax reform was to simplify the tax system.

The tax reform adopted the so-called dual income tax (DIT) in a more or less pure version (for a detailed presentation of the theoretical background for the DIT, see Sørensen (1994)). Capital income in all forms and for all tax payers was taxed at a flat rate at 28 pct. Personal income (labour income, pensions etc.) was subject to additional taxation according to a progressive rate schedule (see the Norwegian juridical report for details). The basic idea was to imply a neutral and flat taxation of capital income, and ensure the desirable redistribution of income through the taxation of personal income and wealth.

There seems to be strong evidence in economic literature for not taxing capital income at all in a small open economy. If the tax authorities are disabled from monitoring foreign source income, all capital income taxes tend to be source based. With perfect capital mobility there is an infinitely elastic supply of capital from abroad, and any source based tax on domestic investments will drive capital out of the country and shift the tax burden to domestic wage earners. However there is (still) good arguments for maintaining a moderate level of capital income taxation, as physical capital in reality is far from perfectly mobile, and even financial capital is characterised empirically by a strong home bias in investors portfolios. The much debated "race to the bottom" doesn't seem to become a reality in the near future. This makes a case on efficiency grounds for a moderate flat tax rate on source based capital income combined with a progressive tax schedule on labour income, even if the respective marginal tax rates diverges.[1] However, the fact that the 1992 reform in Norway implemented the same marginal tax rate on capital income to all taxpayers and all kinds of capital income reveals that the importance of factor mobility and internationally integrated capital markets weren't taken into consideration to the same extent as the 2006 tax reform. In the 2006 reform there was a greater awareness of the fact that source based tax bases and residence based tax bases should be treated differently in order to protect the domestic tax base (more on this in ch. 4).

Estimates of marginal effective tax rates indicated that the tax reform of 1992 led to a much more neutral system of capital income taxation, by eliminating tax subsidies to many types of investment with low pre-tax profitability. After 1992 the Norwegian economy experienced a significant rise in the average pre-tax rate of return on business investment and a rise in the private savings rate. In addition, there was a significant increase in corporate distributions, reflecting a higher degree of capital mobility within the corporate sector and between the corporate and the household sector. Although part of this development may have resulted from an upturn of the business cycle, there is little doubt that the tax reform of 1992 contributed to an improved allocation of capital in

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[1] Nielsen and Sørensen (1997) indeed argues that if capital income is taxed at a flat rate it is optimal to tax labour income at a progressive rate to avoid overinvestment in human capital relative to physical capital. For further practical arguments for the DIT see Sørensen (2005a).

the Norwegian economy (see NOU 2003: 9 chapter 3).

3.2 Handling the tax rate discrepancy – the rise and fall of the split model

Figure 3 shows the difference in the statutory marginal tax rates on capital and labour income from 1992 to 2004. The gap was 20,8 percentage points in 1992, and increased to 27,3 percentage points in 2004. The difference including employers paid social security contributions was 28,1 percentage points in 1992 and 36,7 percentage points in 2004. Even if there are strong theoretical as well as practical arguments in favour of the DIT, it raises some serious issues concerning income shifting problems in the self employed sector.

The wide (and increasing) difference between the marginal tax rate on capital and labour income made it necessary to implement income splitting rules for self employed. Without some kind of mandatory income splitting it would be fairly easy (and very profitable) to transform de facto labour income into capital income (e.g. dividends) for tax purposes. It was quite clear that the division of income from self employment into capital and labour income had to be simplistic and mechanical. There's no theoretical model available to make the correct division, at least not applicable for each and every taxpayer. This was realized in the report of the expert group (Aarbakkegruppen) prior to the 1992 reform and a main concern of the group was that the gap in the marginal tax rates should be kept to a moderate level (i.e. no more than 20 percentage points, cf. NOU 1989: 14). They also stressed the importance of an administrative simple model.

The outline of the so called split model (delingsmodellen) was that capital income was determined according to an assumed rate of return to the capital stock. The assumed ratio of return on capital was set as a risk free market interest rate plus a risk premium. Imputed capital income was subtracted from the business income, and labour income was thereby residually determined and taxed as personal income. The model applied to all "active owners" regardless of organisational form or size, given that at least 2/3 of the owners classified as active owners.[2]

Unfortunately the wise words of the expert committee regarding the split model were soon forgotten. The marginal tax rate on labour income was gradually increased during the nineties, and the split model became a playground for eagerly political inventions. A strong desire to please particular groups of voters made way for a range of peculiarities in the model, often attired in a business policy (or even redistributive) disguise. At the end of the nineties the politically mutilated split model had become far too liberal in the determination of capital income, and too easy to escape when the model itself got to uncomfortable. The most obvious loophole was to invite a minimum of 1/3 silent partners to the table, and then escape the mandatory income splitting. In many cases the reduced tax bill alone paid for a give away of 1/3 of the shares.[3]

The Skauge-committee (NOU 2003: 9 Skatteutvalget) found clear evidence of adjustments to the split model. The portion of companies subject to the split model decreased from 55 pct. in 1992 to 32 pct. in 2000. Figure 3 shows how the share of companies subject to income splitting decreases from 1995 to 2000 in different sectors. At the same time the number of stock companies increased significantly, especially one-man companies, while the number of self

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[2] For a detailed introduction to the split model see for instance NOU 2003: 9.
[3] A thorough overview and discussion of the changes in the split model is given in NOU 2003: 9.

employed fell from about 200 000 in 1992 to 167 000 in 2000. This clearly indicates that many self employed and active owners took advantage of the liberal rules to escape the model via stock companies with more than 1/3 passive ownership. Office of the Auditor General of Norway (Riksrevisjonen) investigated the split model in 2002 (Riksrevisjonen (2002)), where they concluded that there had been massive adjustment to the split model accompanied by a considerable tax revenues loss for the government. They showed that the portion of companies that was taxed according to the split model to a large extent was the companies that actually gained from it. The share of companies subject to income splitting with negative or very low imputed personal income was very high (90% in 1992) and increasing (96,5% in 1998), cf. table 2.[4] This indicates that both that the model was easy to escape for companies that didn't gained from it, but also that the rules for the actual income splitting was very favourable. Figure 4 shows that total imputed income from active owners was negative from 1996 to 2000 and varied between -5 and -10 bn. NOK, while the entrepreneurial income was significantly higher and varied around 20 bn. NOK.

Table 2: Stock companies subject to the spilt model with positive and negative imputed personal income, pct. 1992, 1995 and 1998.

	1992	1995	1998
Positive IPI > 300 000 NOK	10 %	5 %	3,5 %
Positive IPI < 300 000 NOK	25 %	23 %	16,5 %
Negative IPI	65 %	72 %	80 %

Source: The Ministry of Finance and Statistics Norway.

Figure 4: Share of stock companies subject to the spilt model, percent, 1995-2000
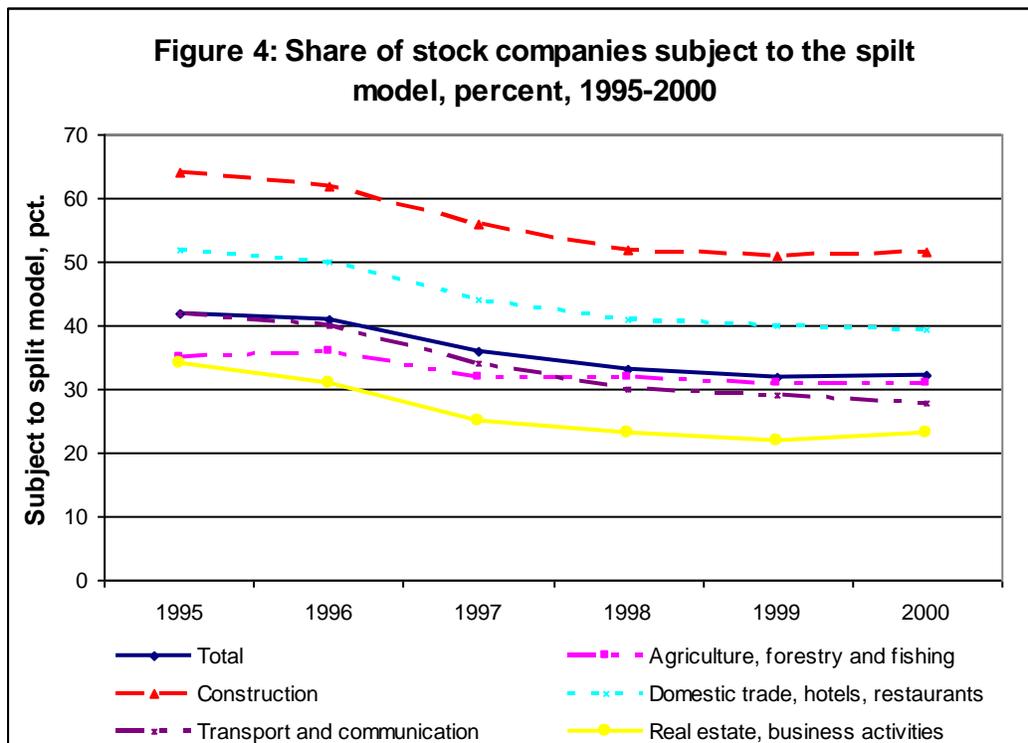
Source: The Ministry of Finance and Statistics Norway.

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[4] Given that an imputed personal income less than 300 000 NOK implies a lower effective tax burden than 28% on dividend payouts (which is the alternative personal tax base if the company is not subject to the split model).

Figure 5: Imputed personal income from active owners in stock companies, 1996 to 2000, mill. NOK
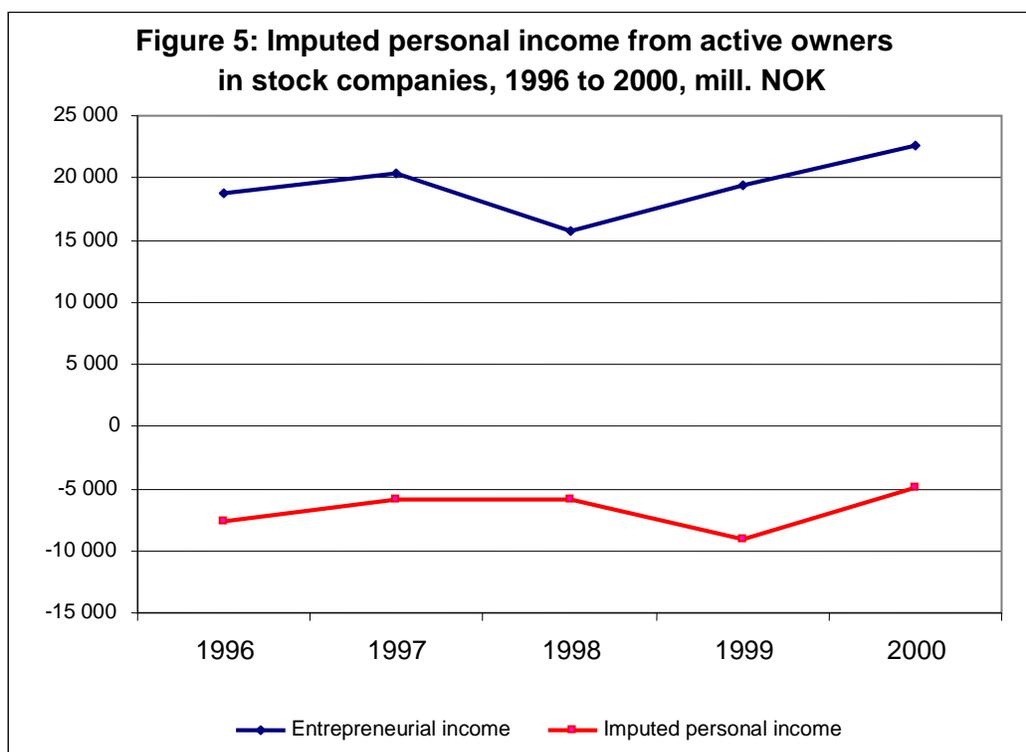
Source: The Ministry of Finance and Statistics Norway.

With a few exceptions there has been surprisingly little empirical research on the dual income tax. Fjærli and Lund (2001) analyzes how owners of corporations choose to pay wages and dividends during a transit period to the dual income tax in Norway. They conclude that owners pay themselves more wages than what is optimal from a short term tax minimizing view, and suggest that this can be optimal from a long-term view, as wage payments are the basis for future pension benefits.

Alstadsæter (2006) analyses the income shifting incentives under the split model. She finds that the split model, and in particular the risk compensation factor in the imputation rate, can induce the self-employed to increase investments in real capital in the firm. Capital becomes a mean to shift income from the labour income tax base to the capital income tax base. The higher the value of the real capital, the greater is the imputed return to capital, and the more of the business income is taxed as capital income. The incentive to participate in this kind of income shifting is stronger the higher the difference between the two marginal tax rates and the higher the risk compensation rate under the split model. All types of real capital have the same imputation rate regardless of actual risk, and also regardless of whether the risk is systematic or unsystematic. It is thus to be expected that the self-employed canalizes this tax induced investment into less risky types of real capital in order to minimize the risk exposure.

3.3 The 2006 tax reform – revitalising the dual income tax

3.3.1 Background
Section 3.2 underpins the assertion that the split model once was considered to be the "diamond in the tax reform crown" but gradually became the "Achilles heel" of the dual income tax.

The increasing income shifting problems during the nineties led the right wing Bondevik-II government to appoint an expert committee in 2002, led by former Finance Minister Arne Skauge, to suggest changes in the tax system to overcome these problems. The mandate was broad, and besides the income shifting problems connected to the split model, the committee should consider changes in the tax system in order to make it more robust to the increase in international capital mobility and to ensure full compatibility with the EEA agreement. Among (many) other things the mandate also underlined the need to assess the wealth tax, which was more or less neglected in the 1992 reform. Finally, there was the usual and obvious objectives, namely to simplify the tax system and strengthen its redistributive properties. However, there was a clear instruction that the suggestions should be in line with the principles that were established in 1992. This made tax neutrality the overall guideline for the Skauge-committees work.

The Skauge-committee considered several models to solve the income shifting problem. The least radical changes that was discussed was a tightening of the existing split model. Any solution to the income shifting problem had to involve a reduction in the top marginal tax rate on labour income. Narrowing the gap between the marginal tax rates on labour and capital income combined with a tight split model would probably be the easiest way to address the problem. However, the committee didn't have much faith in the robustness of the system. The problem in the former tax system was not the split model or the idea of income splitting itself. The problem was that politicians couldn't resist the temptation of using the split model to obtain all sorts of non-efficient political goals. There was no reason to believe that politicians would be more principal in the future than in the past. This alternative was therefore ruled out by the lack of faith in the sustainability of the system.

The committee also discussed the possibility of a progressive taxation of capital income. This would mean a rejection of the dual income tax and a (re)introduction of some kind of a comprehensive income tax system. Since this had to involve equal marginal tax rates on personal capital and labour income, its difficult to see how it could be possible to maintain a low and flat corporate income tax without open up for a preferential treatment of capital accumulation within the corporate sector compared to investments and savings via the open capital market. This could lead to undesirable lock in effects in possible unproductive activities. Different taxpayers would also face differences in marginal tax rates on capital income and deductions, which would make way for arbitraging behaviour like we experienced in the tax system before the 1992 reform. The committee was not very keen on struggling with the pre-1992 tax problems, especially not in a world where capital mobility had to be a main concern in designing the tax system, hence the committee decided to maintain the dual income tax (with one dissentient).

Having rejected both a progressive capital income tax and a tightening of the split model, the challenge faced by the committee was then to eliminate the gap in the marginal tax rates without violating the neutrality principle, and without neglecting the restraint on the corporate income tax following from the fact that Norway is a small open economy in a tax competing world. One theoretically promising model that meets this challenge is the expenditure tax. The committee carefully considered one variant of an expenditure tax system that exempted savings and investments from taxation.[5] Although the theoretical aspect of this brought up interesting

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[5] After massive lobbying activity from Norsk Investorforum.

discussions, the decision to skip the model was pretty easy due to obvious implementation problems and coordination problems related to the fact that no other country in the world have replaced its income tax system with an expenditure tax.

The committee realised that a sufficient decrease in the marginal tax rate gap would be difficult if the current imputation system was maintained. The main problem with implementing a classical double taxation of dividends is the potential distortion of discriminating new equity relative to debt, retained earnings etc. as a marginal source of finance. According to the classical view, dividend taxation is distortive because it raises the capital cost of financial sources that have to bear the tax, namely new equity. The implication of this is a distortion of marginal financial decisions, which will lead to what economists refer to as the welfare decreasing "Harberger triangle". The harmful effect of the dividend tax has been rejected by so called "new view" economists led by King (1977), Auerbach (1979), Bradford (1981) and others. They argued that the possibility of using retained earnings as a marginal source of finance would wipe away the distortions as long as the tax burden on retained earnings, the capital gains tax, more or less can be regarded as non existent.[6] Hence the capital cost of new investments wouldn't be affected by the dividend tax at all, but only by a more or less negligible capital gains tax. This view have led many policy makers to implement a classical full double taxation of dividends in the faith that it won't distort investments or financial decisions.

Although the impact of a dividend tax on the cost of capital is not agreed upon in the literature, it's clear that a tax on shareholder income (i.e. dividends and gains) is distortionary, even in the new view, if the effective tax on capital gains is above zero. In a small open economy with fully integrated financial markets it can however be assumed that the personal income tax is non-distortionary, because it is possible to finance a marginal investment project from abroad. As emphasized by Boadway and Bruce (1992), the personal tax on shareholder income can be seen as a tax on savings alone, and the reduction in domestic savings will be compensated by capital import without significantly affecting domestic investments. Only the corporate income tax, which often is regarded as a source-based tax, will then affect domestic investments.

The Skauge committee realised that even a small open economy like Norway does not face fully integrated markets, because international financial markets are typically not available to a certain part of the corporate sector. Sinn (1991) argues that there is a Harberger triangle related to young and immature firms due to the lack of retained earning as a sufficient financial source. Even though Sinn does not assume an open economy, its reasonable to believe that Sinns' "young and immature" firms is more or less the same firms as the part of the corporate sector that struggles to get funding at internationally determined prices. So even in the new view, a tax on shareholder income is distortionary at least to some part of the business sector, also in an open economy. On the other hand, as pointed out by Apel and Sødersten (1999), if the shareholder income tax is designed symmetrically it reduces the risk of investing in these firms, and on certain conditions reduces the required rate of return in small firms. This result can be interpreted as the shareholder income tax being non-distortionary on *average*. On the other hand it may cause severe distortions to the composition of investments *within* the sector of young and immature firms.

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[6] This is not nescessarily the case but have to be seen on the background that the capital gains tax in the late seventies and early eighties was very low or non existent in many countries, and that the present value of the tax can be further decreased as the capital gains can be postponed to a distant future.

3.3.2 The Shareholder model

The problem faced by the committee was to increase the tax rate on shareholder income without destroying the neutrality qualities of the dual income tax. It was the committees' opinion that a full double taxation of dividends and gains would be harmful to at least a part of the non-listed corporate sector. Boadway and Bruce (1994) presents a practical solution to this problem. They show that a deduction in the corporate income tax each year equal to the nominal cost of finance (plus an arbitrarily chosen depreciation rate) will generalize to well-known ways of levying a neutral business tax, for instance a cash flow tax. The committee used this result to make a neutral shareholder income tax. In the so called "shareholder model" the shareholder is allowed a tax deduction each year equal to the risk free market interest rate times the cost price of the share.[7] This allowance shields the marginal investment project from dividend tax, and makes the tax burden fall entirely on inframarginal projects, so the dividend tax is neutral and basically operates like a tax on pure profits.

The easiest way to perceive the neutrality properties of the shareholder model is to compare it to the Cash Flow Tax (CFT) that is well known to be neutral. The CFT offers an immediate deduction of the investment outlay (the tax value is paid out from the government). Then all net income flows are taxed when they are earned, if they are negative, the tax value of the loss is paid out from the government. This system is clearly neutral because all cash flows are realized transactions, regardless of the depreciation rate etc. The symmetry of the system makes the government a silent risk-sharing partner, were the governments stake equals the tax rate.

With the shareholder model the investments outlay (i.e. the acquisition price of the share) is not deductible until the share is realised. To compensate for this inconvenience the shareholder is granted an allowance equal to the risk free market rate. The first year this allowance equals the acquisition price (A_0) times the risk free market interest rate. If the allowance is not used, it adds to the acquisition price and then increases the base for next year's allowance, in order to preserve the present value of unutilized allowances. The deferral of the deduction of A_0 can be considered as a loan to the government (as safe as government bonds) and it is therefore sufficient to compensate the taxpayer with the risk free market interest rate. Under this assumption a marginal investment project that yields a normal return will be tax exempt. For a thorough presentation of the shareholder model
see NOU 2003: 9 or Sørensen (2005b).

3.3.3 Solving the income shifting problem

Figure 6 shows the changes in top marginal tax rates on dividends (and gains) and labour income due to the tax reform. The marginal tax rate on labour income is the effective tax wedge on wage income, including social security contributions. This reduction in the marginal tax rate gap was required in order to remove the split model. There is still a slight difference between the top marginal tax rates, but this can be justified by the benefit of pensions rights etc. related to the taxation of wage income.

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[7] In this paper labelled as the rate of return allowance (RRA). This phrase is used by Sørensen (2005).

Figure 6: Marginal tax rates on dividends and labour income 2004 - 2006
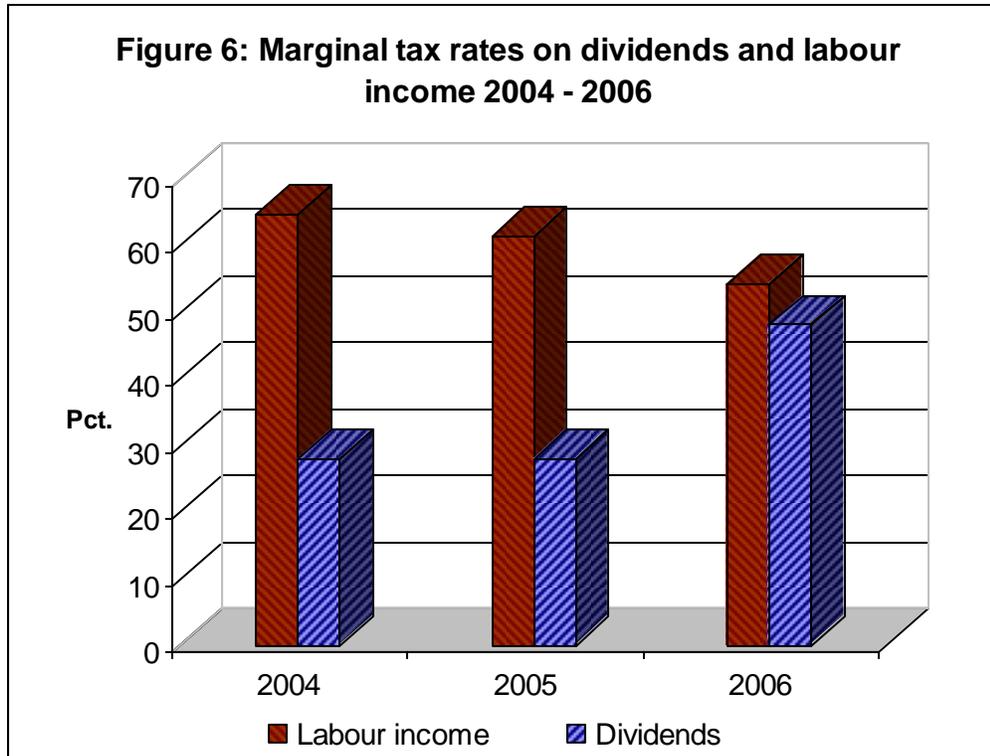
Source: The Ministry of Finance.

From 2006 entrepreneurs can freely decide to get their entrepreneurial income taxed as personal income as self employed, or to organise their business activity as a stock company and get the income taxed as dividend, or to be employed in their own firm and get it taxed as wage income.

The model for calculating the personal income for sole proprietorships still have some similarities to the old split model. Due to practical problems related to separate the business activity from the private activity for sole proprietors, personal income has to be calculated and taxed on a current basis, unlike partnerships and companies. The calculation of personal income is more or less based on the same method as in the split model, but the principal approach is different. The objective is no longer to split the income in capital income and labour income, but to avoid financial distortions. Hence, the RRA rate is much lower than the old imputed rate of return on capital, because it does not contain a risk premium.

3.3.3 Some practical challenges
For practical reasons the rate of return allowance (RRA) is given to the shareholder at the end of the year, regardless of the actual time the share have been in the taxpayers possession. The idea is that if you sell a share (for instance after six months and thereby losing six months of RRA) this will be reflected in the sales price of the share. It would be practically impossible to keep track of the exact time of ownership for all taxpayers. This gives some obvious incentives to increase the portfolio of shares around New Year to increase the RRA. In order for this form of year end trading to be profitable, the supplier of the share have to be tax exempt, for instance a foreigner, or else the sellers loss of RRA would have to be compensated by a higher realisation price. This would normally be a modest problem because the number of tax exempt suppliers of shares is negligible. However, an important part of the 2006 was that corporate shareholders is exempt

from dividend and gains tax. This implies a significant increase in the supply of shares that can be used for year end trading, and would undermine the dividend tax completely. The committee did not give a useful solution to this problem, maybe apart from suggesting that listed shares could be tax exempt, hence owning listed shares wouldn't add to the base for calculating the RRA. However the actual solution implemented by the government was that the shareholder loses any unutilised RRA when the share is realised. This solution has some serious implications for the neutrality properties of the model, as it destroys the element of risk sharing with the government. As a result the model discriminates risky projects and doesn't guarantee the investor a full offset of the present value of the acquisition price.

Another problem that had to be solved was the opportunity to transform equity to debt, by setting up loan arrangements from the investor to the firm. In this way the investor would be able to transform double taxed share income to single taxed interests. To avoid this, interests from firms to persons that exceeds a certain rate is taxed in line with ordinary dividends (except interest on ordinary tradable bonds). This rate equals the RRA rate plus a small risk premium and the intention is to stop this form of income shifting from taking place.

Finally one have to admit that there has been some administrative problem related to find the right acquisition price for a range of shares, especially old, non-listed shares. The neutrality properties of the model do not depend on this, but it was regarded as unreasonable to deny existing shareholders the RRA. It is important, for instance for legitimacy reasons, that the RRA is calculated on the correct base. Also in the old tax system it was necessary to know the acquisition price, but only when the share was realised. With the tax reform all shareholders had to find and report the acquisition price for the tax year 2006, and the value that was reported would affect the actual payable tax every following year. This is of course a transition problem, but seemed to be quite frustrating for many taxpayers and also for the tax authorities.

4. Is the Norwegian tax system viable in a tax competing world?

4.1 Should Norway engage in tax competition?

The dramatic increase in capital mobility the last decades has given much attention to the concept of tax competition between states. The concern among tax authorities as well as academics has been that governments try to attract capital by reducing source based taxation to a suboptimal level. There has been an extensive debate about extent of harmful tax competition, and even if it can be considered to be harmful at all. Some claims that tax competition is desirable because it restricts the governments from growing into some kind of a Leviathan state.

Tax competition is mainly related to source based taxes. Even though the Norwegian tax system is residence based, i.e. Norwegian taxpayers are liable to pay taxes to Norway based on their global income, the corporate tax has to be regarded as a source based tax. When the dual income tax was introduced in 1992, the corporate tax rate was reduced from 52 pct. to 28 pct., which was considered to be fairly low at the time. Since then, statutory tax rates in OECD has fallen substantially, and there has been a trend among OECD countries to reduce statutory corporate tax rates and broadening the tax bases, cf. figure 7.

Figure 7: Statutory corporate tax rates in the OECD, 1982 - 2004
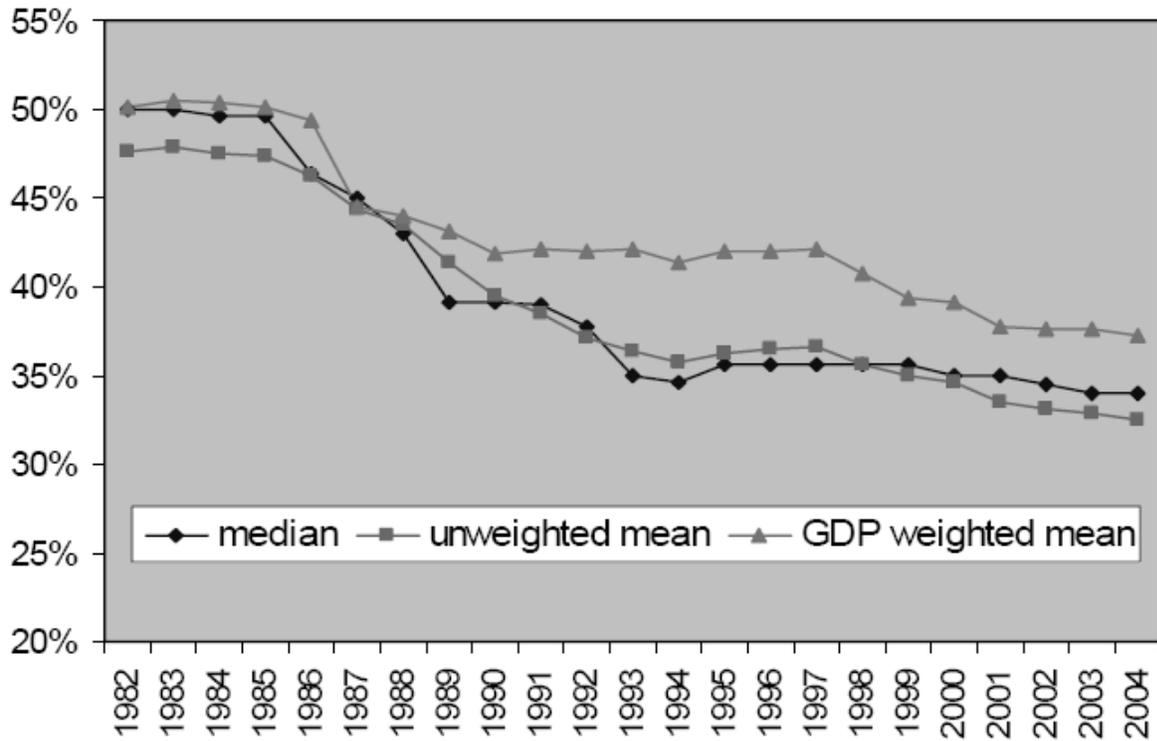
Source: OECD, Devereux and Sørensen (2006)

Figure 8: Corporate income tax revenues relative to GDP in some OECD countries, 1965, 1982 and 2004
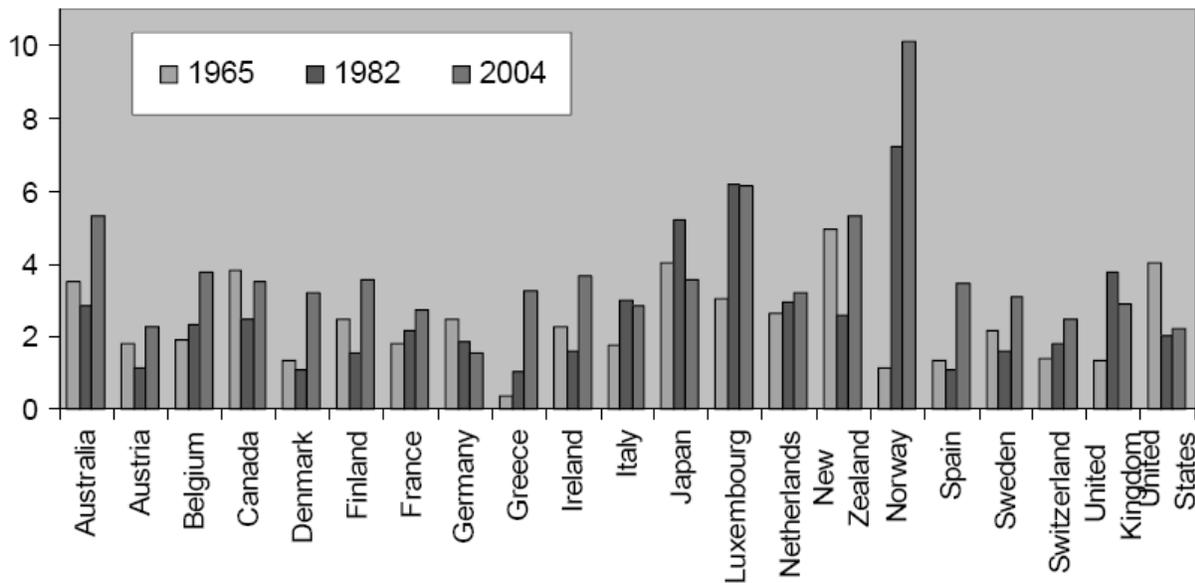
Source: OECD, Devereux and Sørensen (2006).

Figure 8 Shows the development in corporate tax revenues relative to GDP for a range of OECD countries. The figure shows a dramatic increase in corporate tax revenues for Norway, and by far

the highest corporate tax revenues in percent of GDP in OECD. As we saw in section 2, a huge part of this is due to petroleum related taxes. However, it indicates that Norway is not critically threatened by the corporate tax competition. As mentioned above, the Skauge-committee shows that the Norwegian economy experienced a boost in the average pre-tax rate of return on business investment and a significant
increase in corporate distributions, reflecting an improved allocation of capital in
the economy.

Tax competition is driven by the desire to increase (or at least not reduce) capital import. An important question is therefore if the Norwegian tax system is "competitive" enough to maintain or increase the capital base. It is not necessarily the case that capital is a scarce factor to Norwegian businesses in general, relative to other production factors (i.e. labour). Neither is it obvious that it is politically desirable to increase the capital import, because it can lead to unwanted changes in the ownership structure of Norwegian businesses. However, this is a political matter that is much disputed and it seems to be a contradiction between the desire that Norway should be attractive to foreign investments, and the discomfort in having a high share of foreign ownership in Norwegian companies.

When it comes to maintain a significantly large tax base, it was important that any increase in the capital income taxation was residence based, rather than source based like the corporate income tax. The Skauge-committee discussed an increase in the tax rate on ordinary income, but concluded that this also implied a raise of the corporate income tax rate. An important reason for not doing this was the fear of loosing corporate tax base.

Taxation is one of several factors that influence (foreign) investment decisions. There are many other factors that are at least equally important, if not more important than taxation. It is hard to find clear linkages in international studies between the level of effective tax rates and the levels of foreign direct investments. Several countries with high effective tax rates still have a high degree of foreign direct investments. The main concern in Norwegian tax policy should therefore be to provide stable and good conditions for direct investments in general, rather than using the tax system to attract foreign capital. Nevertheless, if taxes on investments need to be reduced from the present level, it should primarily be done by reducing the statutory tax rate (for all kinds of investment), rather than by special incentives for certain sectors or investors.

4.2 A possible improvement of the source based corporate income tax

As stated above, it is generally better to reduce the statutory tax rates for all businesses than to implement special tax arrangements that narrows the tax base, given that there is a need to reduce the effective taxation of corporate capital. However, economic literature gives good arguments in favour placing an allowance like the RRA at the corporate level rather than the shareholder, at least for listed companies. As mentioned above, with fully integrated financial markets, there is no need on efficiency grounds to reduce the tax on shareholder level with an allowance like the RRA. On the other hand, it is a scope for improving the neutrality properties of the corporate income tax by placing the RRA at the corporate level.[8] The RRA base will then be the corporate equity, i.e. the actual capital invested in the firm. In this case it is possible to obtain the attractive

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[8] This is in line with the so called ACE model (Allowance for Corporate Equity, see Devereux and Freeman (1991)).

properties of a cash flow tax, and reduce the effective taxation of source based corporate income at the same time.

An attractive feature of this model is that it is neutral regardless of the depreciation allowance rate for real capital. When the depreciation rate for tax purposes deviates from true economic depreciation of an asset, it will either discriminate or favour investments in this particular asset. For instance if the depreciation for tax purposes is accelerated relative to true economic depreciation, it generates a tax credit. This is equivalent to an interest free loan from the government to the taxpayer. With the RRA the tax credit will be perfectly offset by the reduced value of the RRA base in the future, as a result of the accelerated depreciation of the asset. Hence, the present value of the tax does not depend on the depreciation rate for tax purposes, see the appendix for a formal proof of this proposition. Hence the depreciation rate in this system can be arbitrarily chosen, for instance to be zero. Another attractive feature with this model is that it eliminates the need for thin capitalisation rules to protect the domestic tax, as a result of the symmetric treatment of debt and equity. Since the firm get a deduction for the imputed interest rate on equity as well on interests on debt, there is no incentive to undercapitalise a subsidiary in a country with an RRA for corporate equity.

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Appendix

Let π_t be the result before depreciation and financial cost in period t, and the RRA base equal 1 in the first period. The taxable profit in period t will then be:

$$(1) \qquad \Pi_t = \pi_t - a(1-a)^t - \kappa(1-a)^t = -(a+\kappa)(1-a)^t$$

Where a is the depreciation rate and κ is the RRA. Let ρ be the discount rate. The present value of the profit will then be

$$(2) \qquad PV(\Pi) = \sum_{t=0}^{\infty} \frac{\pi_t}{(1+\rho)} - \sum_{t=0}^{\infty} \frac{(a+\kappa)(1-a)^t}{(1+\rho)^t} = \sum_{t=0}^{\infty} \frac{\pi_t}{(1+\rho)} - (a+\kappa)\sum_{t=0}^{\infty}\left(\frac{1-a}{1+\rho}\right)^t$$

Which can be expressed as

$$(3) \qquad PV(\Pi) = \sum_{t=0}^{\infty} \frac{\pi_t}{(1+\rho)} - (a+\kappa)\frac{1}{1-\frac{1-a}{1+\rho}} = \sum_{t=0}^{\infty} \frac{\pi_t}{(1+\rho)} - \frac{(a+\kappa)(1+\rho)}{(a+\rho)} = \sum_{t=0}^{\infty} \frac{\pi_t}{(1+\rho)} - (1+\rho)$$

Hence if $\kappa=\rho$ (i.e. that the RRA rate equals the discount rate) this expression will be independent of the depreciation rate a.