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The Nordic experience with the income splitting rules

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Taxing dividends in a dual income tax system

The Nordic experience with the income splitting rules*

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Abstract

In a dual income tax (DIT) system, labor income is taxed progressively, while capital income is subject to a lower proportional tax. DIT systems were introduced in Sweden, Norway, and Finland in the early 1990s. In the absence of rules restricting capital income distributions, owners of closely-held corporations would easily be able to circumvent the progressive tax on earned income by withdrawing an appropriate amount of dividends instead of wages. The Nordic countries adopted very different income splitting models, with immediate implications for the tax treatment of dividends. In this article I first review the principles of the income splitting rules of Sweden, Norway, and Finland. I then discuss some of the trade-offs involved in the design of such rules.

Keywords: Income taxation, Nordic comparison, dividend taxation.

JEL Classification: H32; G35.

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1 Introduction

In a dual income tax (DIT) system, labor income is taxed progressively while capital income is taxed proportionally. Such income tax systems were introduced in Sweden, Norway and Finland in the early 1990s. As discussed e.g. by Bastani and Waldenström (2020) and Sørensen (1994), the DIT has several desirable features. The capital income tax base is often considered to be more elastic than the labor income tax base, and it may therefore be justified to have a lower marginal tax rate on capital income. In addition, for practical reasons, Nordic countries tax nominal returns, i.e. the sum of real returns and inflation. Historically, an important rationale for a lower tax on capital income is that the effective tax on real returns would otherwise exceed the top tax rate on labor.

The combination of high marginal tax rates on top labor incomes and low taxes on capital creates economic incentives to transform labor income into low-taxed capital income, a phenomenon often referred to as income shifting. The incentives to shift are not only given by the personal labor and capital income tax schedules, but also by payroll and corporate taxes at the firm level. However, far from all individuals have direct opportunities to shift income between the tax bases. Ordinary wage earners have limited opportunities to shift income because their wage income is not declared by them but by their employers. Corporate owners, and in particular owner-managers who simultaneously determine their own wage and dividend payout policies, have much greater opportunities.

In the absence of rules restricting income shifting, owners of closely-held corporations would easily be able to circumvent the progressive tax on earned income by withdrawing an appropriate amount of dividends instead of wages.[1] A DIT system, in which the marginal tax rate on labor significantly exceeds the tax on capital, therefore requires some kind of *income splitting rules*, which regulate how much income corporate owners may tax as labor or capital income. In a Nordic setting, any discussion on the taxation of dividends and capital gains,

[1] There would also be extreme incentives to switch from being an employee (subject to third-party reporting of wage income) to being a corporate owner for tax purposes. There are, however, laws prohibiting consultants to work for a single company, which means that such transitions would not come without costs to the individual.

must, in some way or another, relate to splitting rules. The design of the splitting rules has a direct impact on the effective tax rates on dividends and thus on the incentives to retain earnings in the corporation (or in groups of corporations) and, more generally, on entrepreneurial incentives. We can also expect the rules to affect the ownership structure of corporations.

This article has a two-folded purpose. In the first part, the purpose is to describe the income splitting rules in Sweden, Norway, and Finland. Note that the historical development of the splitting rules is relevant to understand the design challenges: In Sweden and Norway the rules have been profoundly reformed, while the Finnish splitting rules have been stable over time. The description will be stylized: My ambition is to highlight the main principles behind each system. As an expositional device, I will use equations and a coherent notation across systems to illustrate the income that the corporate owner is allowed to tax as capital income. Earlier comparisons of the splitting rules in the three countries are to be found in e.g. Kari and Ropponen (2016), Lindhe et al. (2002), and Hagen and Sørensen (1998). Besides being more recent, the current overview focuses on two questions: First, which corporate owners are covered by the splitting rules? Are the rules targeted to owner-managers that are capable of income shifting (like in Sweden), all non-listed firms (Finland), or both listed and non-listed firms (Norway)? Second, how is the capital income component, which I below refer to as the *dividend allowance*, calculated by the government? Does it depend on the wage sum (Sweden), net assets of the firm (Finland), or invested equity (Norway)?

In the second part, the purpose is to discuss some of the issues and trade-offs involved in the design of well-functioning splitting rules. The discussion touches on more aspects than the conventional focus on neutrality between marginal investments under different sources of finance and organizational forms, see e.g. Sørensen (2005), Lindhe et al. (2002), and Stenkula and Wykman (2022).[2] In a discussion on the DIT, the design of the splitting rules is of fundamental importance, because the better the government designs these preventive rules, the more flexibly the government can tax labor and capital income. With poorly de-

[2]The Nordic DIT model has also been analyzed from the lens of the theory of entrepreneurship, see Henrekson and Sanandaji (2011).

signed preventive rules, it may seem necessary to tax labor and capital income at the same nominal rates. With well-designed splitting rules, the economic policy conclusion may be radically different.

On a general note, income splitting rules can be designed in two ways. The *normal wage model* implies that the government determines a presumptive wage income for the active owner of a closely held company. This "income" is then taxed as labor income, while the residual is taxed as capital. By contrast, the *normal return model* implies that the government instead determines a presumptive return to the owner's capital investments. This amount is taxed as capital income, while the residual is taxed as earned income. In the DIT reforms in the early 1990's, Sweden (1991), Norway (1992), and Finland (1993) all chose to adopt variants of the the normal return model.

Before continuing I would like to remark on a couple of important delimitations. First, even though Denmark is a Nordic country, it will be omitted from this study. Denmark was the first country to introduce a DIT hybrid system in 1987 (Sørensen, 1994), but taxes on labor and capital are still not fully separated. Furthermore, there are no income splitting rules applying to owners of closely held corporations, and the tax rates on shareholder income and labor income are set in such a way that income shifting incentives are limited (SOU 2016:75).[3] Second, in the overview of Section 2 I also leave Iceland out, because it differs profoundly from the other Nordic countries. Iceland has a normal wage model in place after the Icelandic DIT reform of 1997. In Section 3.4 I discuss both the Icelandic and the Dutch normal wage models. Third, in the Nordic countries, income splitting rules apply not only to corporate owners, but also to partnership owners and sole proprietors who are taxed at the personal level. In this article, I restrict my attention to the rules facing corporate owners.

[3]The 1987 reform in Denmark did, however, introduce income splitting rules for self-employed taxed at the personal level, but no such rules exist for corporate owners (Hagen and Sørensen, 1998).

2 The Nordic income splitting systems

2.1 Sweden 1991–2005

Swedish tax law makes a distinction between ”qualified” and ”unqualified” shares in non-listed corporations. Dividends and capital gains from qualified shares are subject to the income splitting rules, whereas an unqualified shareholder may tax an unrestricted amount of dividends and capital gains as capital income. A share of a non-listed corporation is qualified if the following two conditions are met:

1. *The corporation is a closely held corporation (CHC).* In Sweden, a CHC is defined based on ownership concentration: A firm counts as a CHC if 4 or less owners control at least 50% of the shares. To prevent tax-motivated shifts of ownwership shares across family members, the family network (defined in a broad sense to include relatives) count as one owner. Moreover, if several owners are active in the firm, these owners (and their relatives) also count as one owner (the extended CHC definition).

2. *The shareholder takes active part in profit generation.* The owner has been working (taken active part in profit generation) in the company during the 5 most recent years.

There is, however, an important exception to this rule. If passive owners, who are not taking active part in profit generation, control more than 30% of the shares, the shares of the active owners always count as unqualified shares, and income splitting does not apply. Note that this holds true even when the two conditions specified above are met.

Following the terminology of Alstadsæter and Jacob (2012), I will use the term *dividend allowance* to denote the amount of dividends from corporation j that individual i is allowed to tax as capital income in fiscal year t. The dividend allowance can be written in the following stylized way for Sweden 1991–2005:

$$\mathrm{DA}_{ijt} = \rho_t \times E_{ijt} + (1+\rho_t) \times \mathbb{1}_{\mathrm{DA}_{ijt-1} > D_{ijt-1}} \times [\mathrm{DA}_{ijt-1} - D_{ijt-1}], \qquad (1)$$

where E_{ijt} is the *equity invested* by owner i in corporation j (acquisition value of shares) at time t, ρ_t is the *presumptive rate of return*, and D_{ijt-1} denotes dividends received from the corporation in the previous year. $\mathbb{1}_{(.)}$ is an indicator variable that takes on the value one if the saved dividend allowances are positive, and it is zero otherwise. Dividends in excess of the dividend allowance were added to labor income (progressive taxation).[4]

The intuition is straightforward: The allowance is given by a presumptive (imputed) return to the owner's initial capital investment. This return is obtained by multiplying the acquisition value of shares with a presumptive rate of return, which is given by the riskfree rate of return (state lending rate) and a risk premium. If the CHC owner did not utilize the allowance a certain year, the unutilized allowance could be carried forward to the next year.

Capital gains from qualified shares, which were taxed upon realization, were also taxed as capital income up to the dividend allowance. Capital gains in excess of the dividend allowance were split equally into labor income and capital income.[5] Hence, in practice the tax treatment of capital gains from CHC:s was more lenient than for dividends.

2.2 Sweden post-2006

The Swedish system underwent a profound reform in 2006. This reform has been covered empirically by Alstadsœter and Jacob (2016), Alstadsæter et al. (2017), and Jacob (2021). The reform strongly impacted on the way in which dividend allowances are calculated. It should be emphasized, however, that the above mentioned criteria for being covered by the splitting rules were retained. The government now introduced two options for calculating the year t dividend allowance. The CHC owner may either choose the *simplification rule* or the *main*

[4]Equation (1) abstracts from the fact that a small share of the firm's wage sum could be added to the dividend allowance from 1994 and onwards. I also omit the "relief rules" ("lättnadsreglerna") that were in place 1997–2005. These simplifications were also made by Lindhe et al. (2002) and Lindhe et al. (2004). See Selin (2021) for a comprehensive account (in Swedish) of the development of the Swedish splitting rules.

[5]Extremely large capital gains were taxed as capital income, however.

rule. Using the above notation we write

$$\mathrm{DA}_{ijt} = \begin{cases} \mathrm{DA}_{ijt}^{SIMPLE} \\ \text{or} \\ \mathrm{DA}_{ijt}^{MAIN} \end{cases} \tag{2}$$

If the owner chooses the simplification rule the allowance is given by

$$\mathrm{DA}_{ijt}^{SIMPLE} = s_{ijt} \times q_t + (1 + \tilde{\rho}_t) \times \mathbb{1}_{\mathrm{DA}_{ijt-1} > D_{ijt-1}} \times [\mathrm{DA}_{ijt-1} - D_{ijt-1}], \tag{3}$$

where s_{ijt} is i's ownership share in j, and q_t is a fixed amount that is constant across all corporations in year t regardless of the size of their equity. $\tilde{\rho}_t$ is the interest rate used for accumulation of dividend allowances. Hence, when the CHC owner chooses this alternative, the allowance is simply a fixed amount (in proportion to the ownership share) plus accumulated unutilized allowances from earlier time periods.

If the owner chooses the main rule the allowance is given by

$$\begin{aligned} \mathrm{DA}_{ijt}^{MAIN} =& \rho_t \times E_{ijt} + \mathbb{1}_{W_{ijt-1} \geq \underline{W}_{jt-1}} \times \mathbb{1}_{s_{ijt} \geq \underline{s}_t} \times s_{ijt} \times G(W_{jt-1}) \\ &+ (1 + \tilde{\rho}_t) \times \mathbb{1}_{\mathrm{DA}_{ijt-1} > D_{ijt-1}} \times [\mathrm{DA}_{ijt-1} - D_{ijt-1}], \end{aligned} \tag{4}$$

where W_{ijt-1} is the active owner's own wage received from corporation j in the previous year, and W_{jt-1} is the total wage bill (including the owner's own wage) in the corporation in the previous year. Wages in subsidiaries are also included. $G(W_{jt-1})$ is the wage-based allowance explained below. $\mathbb{1}_{W_{ijt-1} \geq \underline{W}_{jt-1}}$ is an indicator function that takes the value of 1 if the active owner's wage exceeds a certain threshold, and it is zero otherwise. Likewise, $\mathbb{1}_{s_{ijt} \geq \underline{s}_t}$ takes on the value of 1 if the ownership share exceeds a certain threshold $\underline{s}_t$.[6] The owner's wage requirement for eligibility for the wage-based allowance can be written

$$\underline{W}_{jt} = \min[\alpha + \beta W_{jt}, \underline{W}_t^{max}]. \tag{5}$$

[6]This individual share requirement is $\underline{s}_t = 4\%$.

To better understand the nature of the current Swedish splitting rules I will now be more specific on the paramater values. In Swedish tax legislation, these parameters are often formulated in income base amounts (IBB) in the previous year. In 2023 the IBB amounted to SEK 74,300. The fixed amount when opting for the simplification rule is 2.75 IBB or q =SEK 204,300 in year 2024. This amount must be thought of as large given that the minimum capital requirement for corporations in Sweden is currently SEK 25,000.

The wage-based allowance is simply 50% of the firm's wage bill, i.e. $G(W_{jt-1})$ $= 0.5 \times W_{jt-1}$, up to a very high ceiling of $50 \times W_{ijt-1}$. The wage requirement is given by α =6 IBB, $\beta = 0.05$, and $\underline{W}_t^{max}$ =9.6 IBB. Hence, the owner's wage requirement for eligibility to the wage based allowance may not exceed SEK 713,000 in 2024. If the wage requirement is not met, the individual owner receives no wage based allowance at all. Even though the old capital-based allowance remains in equation (4) it nowadays plays a modest role – the wage based allowance is considerably more important for those using the main rule.[7]

Admittedly, the Swedish "main rule" is complex. In June 2024, a new government committee on income splitting rules presented a proposal with the stated purpose of simplifying the rules (SOU 2024:36). The committee suggests, for example, that both the wage requirement and the capital requirement should be abolished. It remains to be seen whether these proposals will be enacted into law.

Before closing this section I encourage the reader to reflect upon the similarities between the Swedish post-2006 system and a normal wage model. In the introductory section we made a distinction between the normal wage and the normal return models, and we remarked that Sweden, Norway, and Finland all adopted a normal return model. However, the current Swedish system apparently shares crucial features with a normal wage model, because if the firm owner withdraws a pre-specified wage income, she becomes eligible to a considerably larger dividend allowance. If the allowance is sufficently large, the owner may tax all residual income as capital income.

[7] In 2014 only 3% of the generated dividend allowances came from the capital based allowance, 56% from the wage-based allowance, 20% from the simplification rule, and 20% were derived from accumulation of unutilized allowances (SOU 2016:75, Table 6.17).

2.3 Norway 1992–2005

The Norwegian income splitting rules that were in place in the years following the 1992 dual income tax reform applied to active corporate owners. An owner was considered as being active if she worked more than 300 hours in the firm annually. However, the splitting rules did not apply if passive owners held at least two thirds of the shares. This rule closely resembles the Swedish 30% ("utomståenderegeln"). However, unlike Sweden, there were no further restrictions with respect to ownership concentration in Norway 1992–2005.

In a setting like this, there are salient incentives to invite passive owners, because by doing so the active owners circumvent the splitting rules and may tax all distributed corporate income as capital income. As mentioned above, in Sweden the rules for transferring shares to passive owners are restrictive: a large extended family network counts as one owner. On a similar note, in Norway spouses and nonadult children of active owners were not treated as separate passive owners. However, Thoresen and Alstadsæter (2010) report that a couple years after the 1992 reform, adult children were treated as passive owners. It thus seems like the Norwegian rules, at least in this respect, were more liberal than the Swedish ones.

An important feature of the Norwegian rules 1992–2005 was that corporate profits were divided into labor and capital income and taxed *independently of the dividend payout decision*. The government first calculated the presumptive return to capital as $\rho_t \times A_{jt}$, where A is *total (gross) assets* of the corporation. Residual (imputed) labor income of owner i is given by

$$Z_{ijt} = s_{ijt} \times [Y_{jt} - \omega \times (1 + \tau_P) W_{jt} - \rho_t \times A_{jt}] \tag{6}$$

, where Y_{jt} is gross profits, ω is the share of wage costs that can be deducted (human capital deduction), and τ_P is the payroll tax.[8] When $Z_{ijt} < 0$ it is carried forward against future positive imputed return to labor in corporation j. Capital gains (adjusted to account for retained profits in the firm) were taxed as capital income.

[8]Note the similarity between the Swedish wage based allowance and the Norwegian human capital deduction.

2.4 Norway post-2006

The Norwegian "shareholder income tax", introduced in 2006, applies to shares from *all* corporations, regardless of ownership structure and activity status. It does not even differentiate between listed and non-listed shares. The theoretical foundations of the system have been laid out by Sørensen (2005), and the 2006 reform has been studied empirically by Alstadsæter and Fjærli (2009) and Alstadsæter et al. (2023). It should be emphasized that the Norwegian shareholder income tax is not literally an income splitting system, because no dividends or capital gains are taxed progressively with labor income. The basic principle behind the system is that the normal return to the share investment is exempted from owner-level taxes. However, as the "excess return" is taxed at a rate close to the top marginal tax rate on labor income, it is nevertheless *related* to an income splitting system.

The expression for the "dividend allowance" (rate of return allowance) corresponds to (1) for Sweden 1991–2005:

$$\mathrm{DA}_{ijt} = \rho_t \times E_{ijt} + (1+\rho_t) \times \mathbb{1}_{\mathrm{DA}_{ijt-1} > D_{ijt-1}} \times [\mathrm{DA}_{ijt-1} - D_{ijt-1}], \qquad (7)$$

where ρ_t now corresponds the risk-free rate of return (no risk premium).[9] In similarity with the old Swedish system, the allowance is given by the invested equity, and unutilized allowances can be carried forward.

2.5 Finland post-1993

While both Sweden and Norway made profound changes to their income splitting systems, the basic structure of the Finnish splitting system has been surprisingly stable since the advent of the dual tax system in Finland in 1993, an event that was studied by Pirttilä and Selin (2011). The Finnish income splitting system is very general: It applies to all non-listed corporations, regardless of ownership structure or activity status. However, in contrast to the current Norwegian system, shares in listed corporations are not part of the system.

[9] Sørensen (2005) argues along the lines that the risk-free interest achieves investment neutrality also under uncertainty.

The dividend allowance can be written

$$\mathrm{DA}_{ijt} = s_{ijt} \times \rho_t \times (A_{jt} - B_{jt}), \tag{8}$$

where $(A_{jt} - B_{jt})$ refers to the book value of the corporation's *net assets*. Note that, in Finland, unutilized allowances cannot be carried forward. However, the firm owner may of course expand future dividend allowances by retaining profits in the firm, thereby increasing equity. Capital gains are taxed as ordinary capital income and are not directly affected by the dividend allowance.

Behavioral responses to tax incentives within the Finnish system have been illuminated by e.g. Harju and Matikka (2016a), Harju and Matikka (2016b), and, most recently, Koivisto (2024).

2.6 Overview

Past and current splitting rules regimes in Sweden, Norway, and Finland are summarized in Table 1. The criteria for being covered by the rules were quite similar in Sweden and Norway up to 2006. After 2006, Sweden is the only country in which taxes on distributed profits are differentiated with respect to activity status and ownership concentration.

Turning to the base for the dividend allowance, Sweden 1991–2005 and Norway post-2006 both use injected equity, whereas imputed capital income depends on gross assets in Norway 1992–2005 and net assets in the entire period in Finland. In Sweden and Norway, but not in Finland, the presumptive rate of return is tied to the risk-free interest rate.

2.7 Tax rates

The incentives faced by those covered by an income splitting system do of course depend on the interaction between the parameters of the splitting system and the tax rates. Table 2 summarizes the relevant current tax rates in the three countries.

The differential between the combined dividend and corporate tax rate and the combined personal top marginal tax rate and the payroll tax rate is an im-

Table 1: Summary of splitting rules in Sweden, Norway, and Finland

	Sweden 1991–2005	**Sweden 2006-**	**Norway 1992–2005**	**Norway 2006-**	**Finland 1993-**
Activity requirement	Yes	Yes	Yes	No	No
Ownership requirement	Few majority owners Active owners control $> 70\%$		Active owners control $> 2/3$	No	Non-listed shares
Base for DA	Acquisition value of shares	Fixed amount OR wage sum [a]	Gross assets, wage sum[b]	Acquisition value of shares	Net assets
Pres. rate of return (ρ)	5% + risk-free (1991)	9% + risk-free[c] (2024)	4% + risk-free (2003)	risk-free (2024)	8% (2024)
Cap gains included in the DA?	Yes	Yes	No	Yes	No
Carry-forward of DA:s	Yes	Yes	No	Yes	No

Notes: The table schematically describes properties of the income splitting systems of Sweden, Norway, and Finland. Note that it is non-standard to label the Norwegian post-2006 system as a splitting system. [a] The wage sum is the dominating, but not the only source of the DA for those who choose the "main rule". [b] The Norwegian system 1992–2005 did not include optional dividend allowances, because income splitting was made independently of the dividend decision. [c] The interest rate used to accumulate DA:s, i.e. $\tilde{\rho}$ of equations (3) and (4), was 3% + the risk-free interest rate.

portant determinant of the incentive to shift labor income to capital income. In the current Swedish setting this differential is almost 30 percentage points (66-36.48=29.52) for dividends within the generously determined dividend allowance. In Finland, the same differential is sizeable as well – around 25 percentage points for dividends that are below EUR 150,000 and taxed within the dividend allowance. It is clear though that the *level* of the dividend tax within the allowance is significantly lower in Finland compared to Sweden.

In Norway, the tax rate differential is substantial within the dividend allowance. However, as the presumptive rate of return equals the risk-free rate, it is perhaps more relevant to compare the tax rate on excess dividends with the top marginal tax rate on labor incomes. Apparently, the top tax rate on labor income and the combined dividend and corporate tax rates are close, by construction.

A crucial feature of the Swedish tax rules, not captured by Table 2, is that dividends since 2006 are taxed differently depending on whether the shares are qualified, unqualified (see Section 2.1) or listed. As can be inferred from Table 2, dividends from qualified shares are taxed at 20% at the owner level. However, dividends and capital gains from unqualified shares, i.e. shares in non-listed firms not subject to income splitting, are taxed at a *higher* rate of 25%. Income from listed shares, finally, are taxed at 30%, which is the "standard" proportional tax rate on capital income in the Swedish dual income tax system. An interesting consequence of this tax differentiation is that it is not always beneficial to avoid the splitting rules.[10] This is especially true for corporate owners who are entitled to large dividend allowances.

2.8 Historical context

Sweden, Norway and Finland introduced different normal return models in the early 1990s. Even more striking, however, is that the countries followed very different paths in the mid-2000s. Sweden introduced more generous rules in

[10] A legal way for a Swedish CHC owner to transform qualified shares into unqualified shares is to be completely passive in five years. After a period of five years, all earnings retained in the firm may be distributed to the owner at a tax rate of 25%.

Table 2: Current tax rates

	Sweden	**Norway**	**Finland**
Dividend tax, $D <$ DA	36.48 (20)	22 (0)	26(7.5) or 26.8(8.5) 43.12(28.9)>EUR 150,000
Dividend tax, $D \geq$ DA	65 (55^b) 44.42(30)>EUR 600,000[a]	51.5 (37.8)	54 (42)
Tax on capital gains	Almost as dividends	As dividends	As capital income
Top MTR labor income	66 [55^b]	49.5[47.4](low) 55.8[47.4](high)	56 [56^b]
Capital income tax rate	30	22	30<EUR 30,000 34≥EUR 30,000
Corporate tax rate	20.6	22	20

Notes: All tax rates are expressed in percent and refer to the tax year of 2024. Dividend tax rates include corporate tax rates. Dividend tax rates excluding corporate taxes are in parentheses. Marginal tax rates (MTR:s) on labor income include payroll taxes. Marginal tax rates excluding payroll taxes are reported in squared brackets. [a] The ceiling for dividends being taxed as labor income is 90 income base amounts. [b] Top marginal tax rate on labor income (average local tax rate) including the employee's social security contribution in Finland.

2006, with more emphasis on the wage-based dividend allowance, while Norway in the same year moved to a general system that in some respects resembled the Swedish splitting rules of the 1990s.[11] It is beyond the scope of this paper to assess the reasons for these reforms, but a detailed description of the Swedish policy context is to be found in Selin (2021).

The role of the splitting rules in the public debate seems to have been different in Norway and Sweden. In Sweden, the splitting rules or "the 3:12 rules" were very unpopular among business owners in the 1990s. The rules were criticized for being too restrictive against successful entrepreneurship, see the discussion in section 3.3 below. Another common complaint was that the rules were too complicated, imposing high compliance costs on small business owners. The latter line of criticism motivated the "simplification rule" discussed above. Sweden's 2006 reform was implemented under a Social Democratic government, and the rules were subsequently made more lenient under a center-right government. The more generous Swedish wage sum rule in 2006 was motivated from the perspective of promoting entrepreneurship: The wage sum was seen as a proxy for risk-taking (Edin et al., 2005).

In Norway, on the other hand, the focus in the political discussion seems to have been on the tax-planning responses induced by the pre-2006 version of the splitting rules (Sørensen, 2005).

In short, the stated motive behind the Swedish reform was to promote entrepreneurship and reduce compliance costs, and the motive behind the Norwegian reform was to combat income shifting and to achieve a more neutral taxation of shareholder income (Sørensen, 2005).

3 Policy issues

3.1 Are splitting rules needed in the first place?

Is income splitting needed in the first place? Or would it be better to tax capital income and labor income at the same rates? This is undoubtedly the most

[11] Finland partially reintroduced double taxation of dividends in 2005, which can also be seen as a more restrictive tax treatment of dividend income.

fundamental policy question related to income splitting. From a public finance perspective, the answer depends critically on the real elasticities of labor and capital incomes. If the two elasticities are equal, then from an efficiency point of view there is nothing to be gained from lower taxes on capital. It should be noted, however, that optimal tax theory considers taxes on *real* returns, and the inflation argument mentioned in the introduction may still motivate lower taxes on capital than on labor when nominal incomes are taxed. Optimal taxes also depend on redistributive concerns and how different sources of income are distributed in the population.

What do we know about the real elasticities of labor and capital supply? Several studies using Nordic data have found that the taxable labor income elasticity is around 0.2, implying a revenue-maximizing top marginal tax rate on labor above 60% (including both direct and indirect taxes). [12][13] The elasticity of capital supply is much harder to determine empirically, but a study by Jakobsen et al. (2019) using Danish data suggests that capital supply is more elastic than labor supply.

Even if the real elasticities between labor and capital income were different, it is far from certain that a DIT is desirable. If the shifting elasticity is sufficiently large, i.e. if people shift a lot of income when the tax differential increases, standard optimal tax theory still recommends equalizing the two tax rates (Saez and Stantcheva, 2018). The reason is that people otherwise waste resources on tax planning, and the government does not gain much revenue from the higher tax rate on labor income.

A difficult but important task in empirical tax research is to disentangle real responsens from shifting responses. Harju and Matikka (2016b) examined how owners of privately held corporporations subject to the Finnish splitting rules reacted to a 2005 dividend tax reform. Before the reform there was no double-

[12]Blomquist and Selin (2010) and Miao et al. (2024) for Sweden, Thoresen and Vattø (2015), for Norway, Matikka (2018) for Finland, and Kleven and Schultz (2014) for Denmark all report earnings/taxable labor elasticities around 0.2 or lower. Kleven et al. (2023) exploit job switchers in Denmark and instead find an elasticity of 0.4.

[13]When the Pareto parameter is 3 and the elasticity is 0.2 the revenue maximizing tax rate is $\frac{1}{1+3\times 0.2} = 62.5$ See Kotakorpi and Matikka (2017) for a discussion of this top tax formula in a Finnish context with income shifting.

taxation of dividends in Finland, but afterwards dividends were only tax exempt up to a monetary threshold of EUR 90,000. Owners with large dividend distributions therefore experienced a tax increase. Harju and Matikka (2016b) studied how the reform affected reported wage and dividend income of firm owners, while decomposing the response into a real response and a shifting response. They found that the shifting response accounted for two-thirds of the total response.

It is important to recognize, however, that the shifting response is under influence of the government. If income splitting rules are designed in such a way that it is easy to convert labor income into capital income, the shifting elasticity will be large, and vice versa.[14] If the government chooses to tax labor and capital income differently, a key challenge is to design splitting rules that prevent socially wasteful tax avoidance activities.

One policy alternative that might be considered is to tax different types of capital income at different rates, depending on how easy it is to shift labor income into a particular type of capital income. As we saw in Section 2.7, the Norwegian system after 2006 combines a dual income tax, i.e. progressive taxes on labor income and a low (22%) proportional tax on capital income, with a much higher owner-level tax on excess dividends, i.e. dividends that exceed the dividend allowance. As shown in Section 2.7 above, the combined corporate and dividend tax rate is roughly equal to the top marginal tax rate on labor income. At the same time, the top tax rate on labor income is much lower than in Sweden.

Clearly, the Norwegian example shows that income splitting rules may imply high marginal tax rates on dividend distributions (especially if the dividend allowance is low). The distortion of dividend taxes at the owner level on investment and economic activity is a hotly debated issue. According to the so-called new view of dividend taxation, dividend taxes are not distortionary when marginal investment is financed by retained earnings. Recently, this view has received some empirical support from Yagan (2015) on a sample of large US firms. In small open economies, such as the Nordic ones, residence-based taxes

[14]Slemrod and Kopczuk (2002) analyzes an optimal tax model in which the government not only sets the tax rate but also affects the tax avoidance elasticity.

at the owner level are expected to have less impact on domestic investment than source-based corporate taxes (Boadway and Bruce, 1992).

High dividend taxes could nevertheless affect the allocation of capital in the economy. It has been pointed out that dividends transferred within groups of companies are tax exempt in Norway (and in the European Union), and Alstadsæter et al. (2023) have documented an increase in holding companies, where a lot of wealth is accumulated without being distributed to the owners. The incentives to accumulate wealth in corporations under the Norwegian shareholder income tax have also been highlighted by Bjerksund and Schjelderup (2021a) and Bjerksund and Schjelderup (2021b). They claim it is profitable in Norway to save in shares through companies and to defer dividends.[15] There are strong reasons to monitor such lock-in effects carefully in the future.

3.2 Who should be covered by the splitting rules?

In the survey in the first part of this article, I deliberately focused on the coverage and eligibility criteria of the income splitting rules, as the Nordic countries differ considerably in this respect. In Sweden in 1991 and in the old Norwegian system, the ambition was to target the income splitting rules at the owners of firms who have the ability to convert labor income into dividends or capital gains, i.e. the owners of firms with concentrated ownership who also work in their own firms. The reasoning would be that income splitting rules should not affect the dividend policy of firms in contexts where the problem of shifting does not exist. The government's problem, however, is to decide where to draw the line and to prevent owners from manipulating the characteristics that determine eligibility. Ownership structure can be ajusted if different rules apply to different groups of firm owners, and it is inherently difficult for the government

[15] Somewhat contrary, Södersten (2020) shows that the Norwegian shareholder tax is neutral with respect to equity and retained earnings financing, provided that the dividend allowance is fully capitalized in stock prices. In small open economies, where capitalization is unlikely to occur, distortions still arise. On a more general level, the model abstracts from the possibility that taxes can be avoided or evaded by using firms as tax shelters.

to observe the owner's work effort in the firm.[16]

Even if it would be possible for the government to perfectly observe activity status, the challenge to combat manipulation of the ownership structure remains. This was indeed a big issue in the old Norwegian system, where passive owners were invited to circumvent the splitting rules (Thoresen and Alstadsæter, 2010). According to Sørensen (2005), the share of corporations in Norway subject to income splitting fell from 55% in 1992 to 32% in year 2000. Although such loopholes can be closed, it certainly comes with an administrative burden. This speaks in favor of more general rules, like those found in the stable Finnish system, or in the current Norwegian system.

When tax treatment differs depending on ownership structure, which is currently the case in Sweden, firm owners have incentives to spend resources on switching tax status. These resources have, for certain, more productive uses in the economy.

3.3 Firm performance and the dividend allowance

In the popular debate in Sweden around the turn of the millennium, a common concern was that the tax rules of closely held corporations were too restrictive against successful entrepreneurs. A widespread view was that owners of rapidly growing firms were prohibited from withdrawing a fair amount of dividends as capital income. This critique is worth serious attention, because in the old Swedish income splitting system, and in the current Norwegian system, the dividend allowance is a function of invested equity and the interest rate used to accumulate unutilized dividend allowances. This implies that the base for the allowance is insensitive to firm performance at a given level of equity investment. This problem is not present in the same way in Finland, because firm growth is likely to materialize in a higher book value of net assets. And in Sweden post-2006, firm performance is accounted for through the wage sum, as

[16] In fact, optimal tax theory in the tradition of Mirrlees (1971) rests on the idea that the government cannot observe the individual's number of hours worked, only labor earnings. Christiansen and Tuomala (2008) noted that even this assumption is strong when analyzing income shifting in the Nordic dual income tax systems. In this context, it is more appropriate to assume that government cannot observe the true amounts of labor earnings.

successful firms tend to have more employees.

Connecting the base of the dividend allowance to firm performance is likely, however, to induce distortions. Lindhe et al. (2004) compares the cost of capital of different organizational forms and financing in the early incarnations of the splitting rules in Sweden, Norway, in Finland. They found that the cost of capital for investments financed by retained earnings in Finland is too low compared with equity finance. Finnish corporate owners have incentives to retain profits in the firm and invest the funds both in financial and physical capital.

Turning to the Swedish system and the wage based allowance, the concern is the opposite, namely that firms' factor utilization is distorted in favor of labor, see the discussion in Sørensen (2010, Section 7.4). The more employees an entrepreneur hires, the more lenient is the tax treatment of dividends and capital gains.

3.4 Is the normal wage model a good alternative?

I emphasized in the introduction that the alternative to the normal return model is the normal wage model. Under the latter regime, the government imputes a wage income, while residual income distributed from the firm is taxed as capital income. In Section 2.2, we concluded that the current Swedish system is a hybrid between a normal return and normal wage model. A pure version of such a system was, however, implemented in Iceland in 1997 in order to prevent income shifting from progressively taxed labor income to proportionally taxed dividend income in the Icelandic version of the DIT (Matheson and Kollbeins, 2012). In Iceland, the earnings of the business owner are imputed by using industry specific minimum wages, with annual adjustments to account for inflation and productivity growth. Since 2010 there is an additional restriction that 50% of dividend payouts that exceed 20% of corporate net assets are taxed as labor income.

The normal wage model is also at place in the Netherlands. The Dutch income tax system differs from the Nordic DIT:s insofar that presumptive capital returns and not actual returns to a larger extent are taxed, see, e.g, Cnossen and Sørensen (2021) and Cnossen and Bovenberg (2001). However, in similarity

with the Nordic countries, the separation of progressive labor income taxation and proportional capital income taxes motivate special income splitting rules for business owners. In the Netherlands, the owner's wage requirement is the highest of the following amounts: (i) 75% of the wage from the most comparable employment, (ii) the wage of the company's highest earning employee, and (iii) EUR 48,000 in 2022. There is also *share requirement* (c.f. Sweden post-2006). The owner is required to own at least 5% of the shares in the corporation to be allowed to tax distributed income as capital income. Bettendorf et al. (2017) have studied these rules empirically.

A downside of the normal wage model is that productivities are genuinely difficult to impute. Moreover, the term "wage model" is slightly misleading, because the tax system is a function of annual earnings, and therefore the government also needs to have an idea on how to impute work hours. The government may either use very standardized amounts (like in the Netherlands or Sweden) to impute earnings, or industry-specific amounts (like in Iceland). In both cases imputations may substantially deviate from the "true" earnings, and there are potentially large administrative costs involved in running such a system in good way. Moreover, there are reasons to believe that true earnings are considerably more heterogenous than the marginal rate of return requirement used to impute the presumptive rate of return in the Finnish system.

An interesting property of the normal wage model is that labor income in excess of the imputed wage on the margin is taxed as capital income. Consequently, the marginal incentive to supply labor is given by the lower capital income tax rate. Selin and Simula (2020) consider an optimal tax model in which agents differ with respect to productivity, labor supply elasticity, and fixed cost of switching from being a regular employee to become an "income shifter". If people who are more elastic in their labor supply also have lower costs of income shifting, it may actually be optimal for the government to allow for some income shifting, even when abstracting from standard arguments in favor of taxing capital income more leniently than labor income.[17]

[17]There is limited empirical information on how the real labor supply of individuals with different tax statuses responds to tax incentives, but Showalter and Thurston (1997) report that labor supply elasticities are much larger for self-employed physicians than for physicians who are employees.

4 Concluding discussion

In this article I have surveyed both past and current income splitting rules in Sweden, Norway, and Finland. By writing down expressions for dividend allowances using a coherent notation, we have learned about differences and similarities across the systems. An important point, which to my knowledge has not been highlighted much, is that the Swedish post-2006 system is a hybrid between a normal wage and normal return model. I have also discussed pros and cons of different regimes. Evidently, there is a lot more to learn about how the different tax models function in practice, and there is room for more future comparative work on the different countries.

Finally, when discussing the possibility of reforming a splitting system, it is important to take transitional costs into account. Consider e.g. that Sweden, where the stock of accumulated dividend allowances amounted to one fifth of GDP in 2018 (Selin, 2021), would like to switch to a Finnish system that covers all non-listed corporations. Then a big issue would be how already accumulated allowances in the current population of CHC owners should be treated. From the CHC owner's perspective, the accumulated unutilized allowances represent future entitlements to tax business income as leniently taxed capital income. In practice, some kind of transition rules would be needed.

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