1 Introduction and summary

The Swedish dual income tax and the 2006 reform of the 3:12 rules

The Swedish 1991 reform introduced the dual income tax

The Swedish dual income tax levies a progressive tax on labor income and a proportional tax on capital income. In contrast, a global income tax system levies one tax schedule on the sum of income from all income sources. The dual income tax was introduced in Sweden in 1991, in Norway in 1992, and in Finland in 1993. These tax reforms broadened tax bases (by removing deductions and special regulations) and reduced marginal tax rates. Over the past two decades, numerous other countries have introduced versions of a dual income tax system. The Swedish 1991 reform is often referred to as "the tax reform of the century" and is analyzed among others by Agell, Englund, and Södersten (1996, 1998).

Preventing tax minimising income shifting across taxpayers, tax bases, and time is generally a challenge when designing tax systems. It is particularly prevalent under a dual income tax with large differences in marginal tax rates on capital and labor income. In its extreme form, all high wage earners would set up their own corporation to shift compensation for their labor supply to the corporate level. The taxation of small businesses is the so-called Achilles heel of the dual income tax (Sørensen, 1994). To prevent such income shifting, the Nordic countries implemented different versions of an income splitting system, where the income of owner-managers in smaller businesses is divided into an labor income component and a capital income component (see Lindhe, Södersten, and Öberg, 2002, 2004).

The 3:12 rules apply to active owners in closely held corporations. Only dividends within the dividend allowance are taxed as dividend income. Dividends exceeding the dividend allowance are taxed as labor income.

The Swedish income splitting system, *the 3:12 rules*, was introduced in 1991 and applies to active owners in corporations where four or less owners control at least 50 percent of the shares. The 3:12 rules impute a return to equity in the corporations, a "dividend allowance" (*Gränsbeloppet*). The dividend allowance is calculated in two parts: the wage based dividend allowance depends on the total wage bill of the corporation, while the equity based dividend allowance depends on the nominal equity of the corporation. Nominal equity consists of paid-in share capital and any unconditional shareholders' contribution. Dividends within the active shareholder's dividend allowance (based on his or her ownership share) are taxed as dividends at a flat rate of 20 per (from 2006 and onward). Dividends in excess of the dividend allowance are taxed as labor income, where the marginal tax rate depends on the shareholder's total wage income from all sources.

The 2006 reform of the 3:12 rules were intended to stimulate entrepreneurship and employment in family owned businesses. The tax rate on dividends within the dividend allowance was reduced and at the same time the dividend allowance was substantially increased.

The 3:12 rules have been the subject of many discussions over the years. One challenge was that a large part of the dividend allowance was based on the wage bill of the corporation and initially the definition excluded owner wages. This meant that active owners in corporations with high total wage costs received a high dividend allowance, while active owners in smaller corporations with few employees received a small dividend allowance, even if they had the same nominal equity level. In 1999, a government committee was appointed to evaluate the 3:12 rules and propose an alternative system. The report, *Beskattning av småföretag* (Taxation of small business), was presented in 2002 (SOU 2002:52). It suggested replacing the 3:12 rules with the "*BEK model*"[4]. However,

[4] The BEK-model (beskattat eget kapital) imputed a return to shareholders' equity, based not only on paid-up share capital (as under the existing system), but also to the firm's retained earnings. This allowed for the fact that retained earnings would be subject to tax if

following a public debate on the suitability of this suggested system, a new expert group was asked to make a suggestion for changes to the existing 3:12 rules in mid-2004. They handed in their report, "*Reformerad agarbeskattning – effektivitet, prevention, legitimitet*" (Reformed ownership taxation – *efficiency, prevention, legitimacy*, in January 2005 (Edin, Hansson, and Lodin, 2005). As stated by Lodin (2011b, pp. 169):

> *"Part of our responsibility was to explore options for exempting larger close companies from the rules. We got fairly far with such a rule, which would have exempted businesses with 10 or more employees. However, we discovered that virtually every conceivable grey area would contain a significant percentage of highly cyclical companies (such as construction firms), so that many of them were liable to enter or exit the system depending on the state of the economy."*

Based on Edin, Hansson, and Lodin (2005), the Government presented its proposal for changes in the 3:12 rules in late 2005 (Govt. Bill 2005/06:40). The main motivation for these changes was to increase the risk compensation under the 3:12 rules and to promote entrepreneurship and employment in corporations with concentrated ownership. The increase in the wage based dividend allowance and the reduced owner wage requirement to earn a wage based dividend allowance increased the wage based dividend allowance in closely held corporations with high wage costs. In practice this meant that active owners in such corporations would most likely avoid having their dividends or capital gains taxed as labor income.

Another intention of the rule changes was to simplify the 3:12 rules for smaller corporations. Hence, the simplification rule was introduced. These changes came into effect in January 2006. However, these changes have been recognized simply as smaller modifications of the 3:12 rules. It has received little or no attention from academics in economics. Yet these modifications sum up to substantial changes in taxpayers' incentive structure, as we describe in Chapter 3. The tax rate on dividends within the dividend allowance was reduced by 10 percentage points and the dividend allowance was drastically increased for active owners of closely held corporations. In particular the introduction of the simplification

distributed (either as dividends or as wage income of the owner). This part of the shareholders' equity was multiplied by a factor of 0.45. The imputed return to capital thus defined was the part of dividends to the active owner that was be taxed as dividend income.

rule increased the dividend allowance for smaller corporations with low nominal capital and low wage costs. Under this rule, a fixed level of dividend allowance per corporation is distributed to active owners according to their ownership share. Around 80 percent of active owners choose the simplification rule in calculating their dividend allowance. Subsequent changes in the rates for calculating dividend allowances after 2006 have made the 3:12 even more generous for certain groups.

The concept of income shifting

Income shifting is the process of transferring income between income categories and tax brackets in order to reduce total tax payments.

Chapter 2 provides a theoretical overview and defines the phenomenon of *income shifting*. Income shifting is legal tax avoidance and does not involve immediate real effects; it is purely a relabeling of existing income. The three main types of income shifting are across time, tax bases, and taxpayers. We provide examples of these different types and an overview of the empirical literature within these different types.

To participate in income shifting, an individual needs a financial incentive in the form of a potential tax reduction. However, not all taxpayers participate in income shifting, even if they have an incentive to do so. Reasons for that can be that they are unaware of the incentives, or that they lack opportunity. Participation in income shifting can have large effects at the aggregate level. Income shifting by individuals increases after-tax income inequality as typically higher income groups reduce their total tax payments by participating in income shifting. Income shifting leads to misleading statistics. For instance, a reduction of the dividend tax rate could lead to an increase in reported profits and paid out dividends. Evaluated in isolation, one might conclude that the tax reform fosters entrepreneurship and raises tax revenue. However, if this increase in corporate profits is in fact owner-managers' labor income that has been shifted into the corporate sector to reduce individual tax payments, total tax revenue is actually reduced as income is shifted into a lower taxed type. When evaluating the effects of a tax reform, it is important to take into account the effects on *all* tax bases.

Incentives for income shifting in Sweden: the 3:12 rules

The 2006 reform made the 3:12 rules very generous for many owner-managers of smaller businesses. The dividend tax rate has been cut from 30 to 20 percent and the annual dividend allowance often exceeds nominal equity in a corporation.

Chapter 3 describes the principles in the taxation of individuals and corporations in Sweden, as well as the development in tax rates in the period 2000-2012 and the corresponding incentives to shift income. We describe the 3:12 rules in detail. The 2006 reform both reduced the tax rate on dividends within the dividend allowance paid to active owners of closely held corporations and drastically increased the amount of the dividend allowance.

A further development since 2006 has been the steady increase in the dividend allowance under the simplification rule. In 2006, the dividend allowance under the simplification rule was SEK 64 950, while it amounts to SEK 143 275 in 2012. In many cases, and particularly after the 2010 reduction in the minimum nominal equity requirement to SEK 50 000, the annual dividend allowance by far exceeds the total nominal equity in the corporation. The possibility to carry forward unused dividend allowance with interest represents an option value that provides incentives to set up holding or shell corporations for the sole purpose of generating dividend allowances for future use, as we argue in Chapter 4. In Box 4.4, we explicitly calculate this option value using the 2007 rates and the 2012 rates. Due to the increase in the dividend allowance under the simplification rule, the reduced required minimum nominal equity in corporations and the removal of the accounting duty, the option value has increased considerably from 2007 to 2012.

The effective difference in the top marginal tax rate on dividends and wages is 25.4 percentage points for active owners of closely held corporations.

An ordinary wage earner has few possibilities to transfer his or her labor income to capital income. However, owner-managers in their own corporation determine their own wage and the amount of dividends. When comparing the tax burden on wages versus dividends for active owners in closely held corporations, it is

important to take into account taxes paid both at the individual level and at the corporate level in order to get the full picture. These different tax rates across tax bases and income types create incentives to shift income across tax bases, individuals, and over time to reduce total tax payments. At the personal level, active owners' dividend income from a closely held corporation is taxed at 20 percent while labor income is taxed at marginal tax rates ranging from 31.6 percent to 56.6 percent (2011 rates). For high income earners, there is a 36.6 percentage point difference in the top marginal tax rates on dividend income within the dividend allowance and wage income.

A point that is often overlooked in the public tax debate is that both wages and dividends are taxed twice; at the individual level *and* at the corporate level. All wage payments from corporations are subject to social security contributions. Including the tax component of social security contributions, the total marginal tax rate on wage income from closely held corporations ranges from 48.3 to 66.4 percent. Dividend payments have already been subject to taxation at the corporate level. The resulting total tax burden amounts to 41 percent for dividends within the dividend allowance. Hence, the difference in the top marginal tax rate on dividends and wages is 25.4 percentage points for active owners of closely held corporations and provides a substantial income shifting incentive.[5]

Empirical evidence of income shifting in Sweden

Chapter 4 presents detailed empirical evidence on income shifting and the behavioral responses at the individual level and at the corporate level to the 2006 tax reform. We use the Firm Register and Individual Database (FRIDA), which covers all corporate tax returns, all income tax returns of closely held corporation owners and all K10-forms from 2000 to 2009. The data set enables us to link these three data sources and thus to identify income shifting and tax avoidance behavior.

[5] Throughout the report, we use average municipal tax rates. For high tax municipalities, the tax wedge is higher and results in higher incentives to shift income.

The 2006 reform changed incentives along several dimensions at both the individual level and the corporate level. It is important to consider both corporate and individual level responses simultaneously when evaluating responses to a tax reform and to identify income shifting behavior.

The 2006 tax changes are a very good example of the link between the corporate and the shareholder level, and the necessity of including both dimensions when evaluating responses to the tax changes. Even though the taxes were reformed only at the shareholder level, we would expect to find effects at the corporate level. The reform affected incentives along several dimensions:

1. Increased incentives to pay dividends as the tax rate on dividends within the dividend allowance was reduced and the amount of the dividend allowance was increased for active owners of closely held corporations.
2. Incentive to pay dividends instead of wages as compensation to active owners. We would thus expect to find that active owners of closely held firms receive more of their total income from the corporation as dividends.
3. Incentive to become an active owner in a closely held corporation either by shifting from passive to active ownership status, by reducing the number of owners in order to classify as a closely held corporation, by shifting organizational form for a self-employed individual, or by starting a new closely held corporation. As a consequence, we would expect higher ownership concentration in closely held corporations after the reform.
4. Increased value from the potential tax savings from setting up a holding or a shell corporation by accumulating unused dividend allowances. We would thus expect to see an increase in the number of smaller, inactive corporations and a tendency to less capital intensive corporations.

In the empirical analysis we get results that confirm the expected behavior responses listed above, and we now present some of the main empirical findings from Chapter 4.

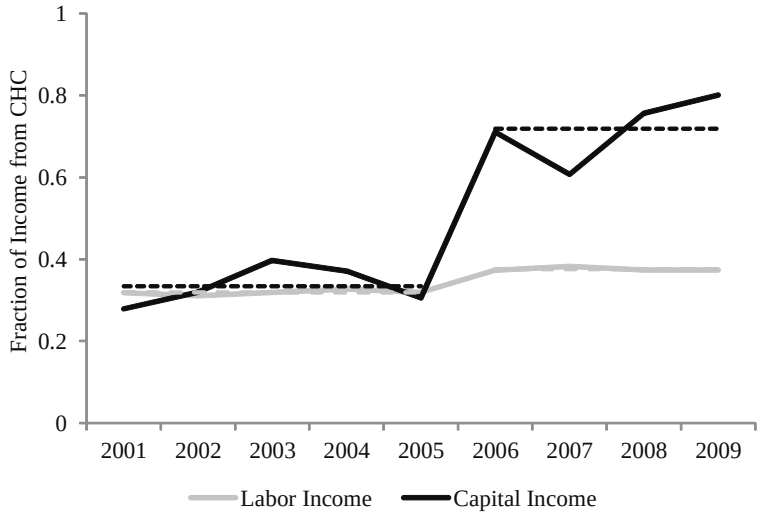
Many closely held corporations that previously had not paid dividends started paying dividends in 2006.

First, we find that many closely held corporations initiated dividend payments after the 10 percentage point dividend tax cut. More than 20 percent of all closely held corporations initiated dividend payments in 2006. Closely held corporations paid substantially higher dividends after the reform and overall dividends were constant despite the economic downturn in 2008.

There is more income shifting from the labor income tax base to the capital income tax base after the tax reform. High-income active owners receive more in dividends and less in wages from their closely held corporations after 2006. This effectively reduces their total tax burden.

Second, we find evidence of this income shifting behavior across tax bases in our aggregate statistics. While dividend income from widely held corporations decreased, dividends from closely held corporations increased by over 80 percent of the unconditional pre-2006 average. This high level of dividends is constant after the reform. We are therefore interested in the share of income that is earned through the closely held corporations. Figure 1.1 shows the share of total labor income earned in closely held corporations (grey line) and the share of total dividends that the individual receives from the closely held corporation.

Figure 1.1 Share of labor and capital income from closely held corporations



We find that the share of dividend income received from closely held corporations increases after the reform to over 70 percent of total dividends. Before the reform, entrepreneurs only received about 33 percent of all dividends from a closely held corporation. In contrast, the importance of labor income from closely held corporations changes only marginally. This suggests that the growth in total income is mainly due to increased dividends from closely held corporations and not from increased labor income. We also take a closer look at the wage-dividend mix of closely held corporation owners. If individuals capitalise tax minimisation opportunities in the tax code, we would expect taxpayers, who are subject to the state tax, to prefer dividends vis-à-vis wages as payout channel. This is precisely what we find in the data. High income individuals generate a substantial share of their income from capital income such as dividends and interest. They are more likely to receive dividends and are also more likely to give substantial shareholder loans to their closely held corporations. Individuals with wages but not dividends from closely held corporations have a labor income below the threshold for the state tax. Hence, individuals appear to optimize the wage-dividend mix for tax purposes.

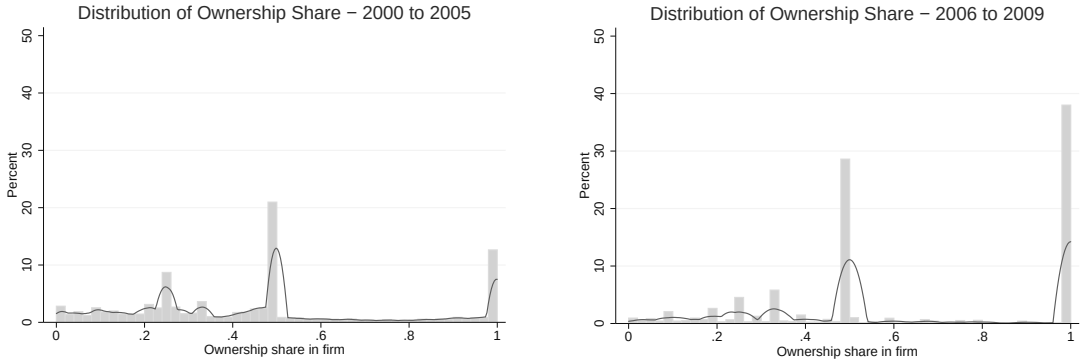
Active shareholders hold larger shares of closely held corporations after 2006. This can be interpreted as a sign of income shifting. Existing passive owners re-classify as active, new holding firms are founded with concentrated active ownership, and more self-employed entrepreneurs incorporate.

Third, we observe a higher concentration of active owners' ownership shares in closely held corporations after the 2006 reform, as seen in Figure 1.2. Before the reform, 47 percent of the closely held corporations had at least 50 percent active ownership. This share increased to 74 percent after the reform.

The strong tendency towards full active ownership in closely held corporations is an indication of income shifting by passive owners re-classifying as active by wage earners setting up consulting corporations, or by individuals setting up holding corporations to benefit from the option value of the accumulated dividend allowance.

The 2006 tax reform also provided self-employed individuals with strengthened tax minimizing incentives to incorporate, as shown by Edmark and Gordon in Appendix 3 of this report. They analyze how the difference in average tax rate when the firm is organized as a self-employed and as a closely held corporation affects the probability to incorporate. A one percent increase in this tax rate difference increases the probability that the self-employed individual incorporates by 0.75 percentage points. This increased incorporation of self-employed entrepreneurs also can contribute to the increase in active ownership concentration in the closely held corporations that we observe in the data.

Figure 1.2 Distribution of active owners' ownership share of closely held corporations



Further, we find that active owners of closely held corporations have higher income, higher dividends, and higher education than the average employed taxpayer. Hence, the 2006 tax reform potentially affects higher income individuals. We further find in our analysis that after the reform, individuals founding new closely held corporations are predominantly individuals with higher income. These are exactly the individuals we would expect to incorporate as they are subject to the state tax and have thus the largest tax saving potential from shifting labor income into closely held corporations.

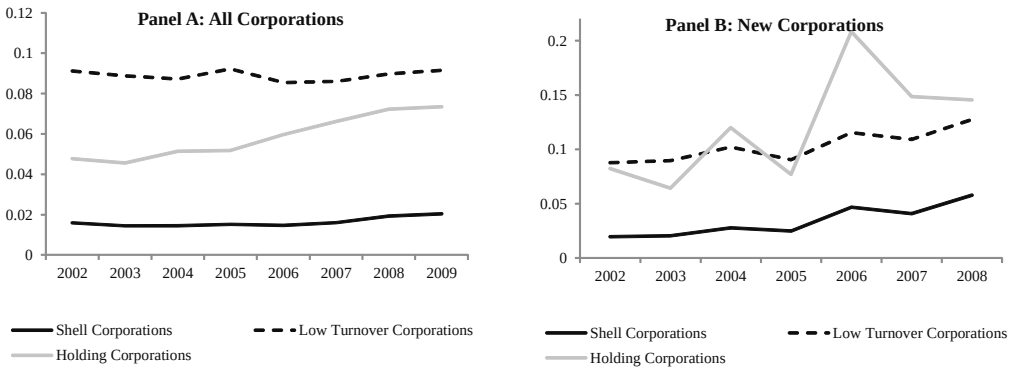
Corporations are founded to enable owners to participate in income shifting using the 3:12 rules. In 2006, about a third of all newly founded closely held corporations were holding corporations, shell corporations or low turnover companies.

Fourth, we observe that the average corporate structure and real investments of closely held corporations change after the 2006 tax reform. Specifically, we find that after the reform the average newly founded closely held corporation has less real investment, less total assets, and less equity than before the reform. At the same time, cash holdings substantially increased. Over 90 percent of newly founded closely held corporations have nominal equity of exactly SEK 100 000. This is about 21 percent more than before 2006. We also find that the percentage of closely held corporations that are holding corporations or shell companies increases after the 2006

tax reform. A holding corporation can be used as an income shifting device to reduce taxes on dividends to passive owners from non-listed corporations from 25 percent to 20 percent at the personal level. Instead of owning these shares directly, the individual can own them through a closely held corporation where he or she is (or claims to be) the active owner and files a k10 form. Dividends received by the holding corporation are not taxed at the corporate level and may be distributed to the active owner and taxed at 20 percent within the dividend allowance. Shell corporations can be used to accumulate dividend allowances for future years. We show this development for all closely held corporations (Panel A) and for newly founded closely held corporations (Panel B) in Figure 1.3.

We find that the share of closely held corporations being either holding corporations or shell corporations has increased from about a sixth before the reform to over a quarter of all new closely held corporations after the reform. In 2006, about a third of all newly founded closely held corporations were holding corporations, shell corporations or low turnover companies. Hence, a substantial share of the corporations founded after the reform are not designed to be the main income source for entrepreneurs.

Figure 1.3: Share of CHCs that are holding corporations, shell corporations and low turnover corporations



Note: This Figure shows the share of shell corporations (black line), low turnover corporations (dotted line), and holding corporations (grey line) for the period 2002-2009. Panel A includes all closely held corporations. Panel B only includes newly founded corporations in the specific year.

It is high income individuals in particular who found holding corporations or shell corporations after the reform.

Finally, we analyze the increased uptake of holding corporations and shell companies after the 2006 tax reform. Specifically, we look at the individuals actively participating in these corporations. The increasing number of holding companies and low turnover companies is mainly the result of high income individuals founding closely held corporations. They benefit the most from the tax wedge between labor income and dividend income. We find that an individual actively participating in a holding corporation has about twice the income of the average closely held corporation owner. Shell company owners also have higher income than the average closely held corporation owner. Furthermore, they generate a very high share of their total income outside the closely held corporation.

Discussion and policy implications

Chapter 5 closes the report with a look at the aggregate effects of participation in income shifting with a particular emphasis on holding companies and gives an outlook on potential revenue effects. Income shifting and tax avoidance can have far reaching consequences at the aggregate level. We can summarize the effects as (1) efficiency effects, (2) distributional effects, (3) revenue effects, and (4) misleading statistics.

Income shifting implies waste.

Efficiency in taxation refers to minimising the excess burden that arises from behavioral responses to taxes. A taxpayer that participates in income shifting uses resources to reclassify income to reduce total tax payments. This implies non-productive use of resources and thus also efficiency loss. The strong increase in the number of holding corporations after 2006 requires a substantial amount of resources to be spent on registration, administration, and integration of income shifting strategies within holding or shell corporations.

The majority of income shifting under the 3:12 rules is conducted by high income individuals. This increases after-tax income inequality.

Our evidence on participation in income shifting shows that vertical as well as horizontal equity is reduced. We find that predominantly high income groups participate in income shifting as their benefits from these strategies are higher. This effectively reduces vertical equity. We further observe differences in income shifting with respect to age, gender, and education.

Unused dividends allowances can be carried forward. The total dividend allowance for a given year is the sum of the accumulated unused dividend allowance carried forward from the past and the calculated dividend allowance for this year.

If the active owner in a CHC receives dividends that are lower than his dividend allowance that year, the remaining unused dividend allowance can be carried forward with interest to be used in the future. There is no expiration date on the accumulated, unused dividend allowances. Accumulated dividend allowances in holding corporations and shell corporations are highly concentrated among the top incomes.

Figure 1.4 Development of accumulated dividend allowances 2000-2009 in SEK billion: breakdown by types of closely held corporations

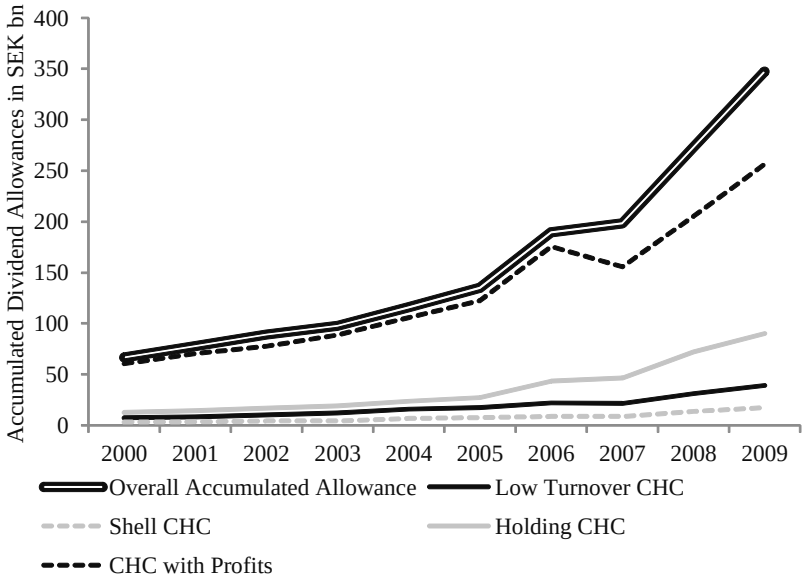


Figure 1.4 shows the development of accumulated dividend allowances by all closely held corporations and holding as well as shell corporations.

The accumulated unused dividend allowances in closely held corporations represent a large potential loss of tax revenue in the future.

We now make a simple calculation to illustrate that in total, the unused accumulated dividend allowances can represent a substantial future tax revenue loss. This is meant as an illustration only, not a precise estimate of the potential tax revenue loss. Using the 2009 values, we can compute a simple estimate of the upper and lower bounds on total latent future tax revenue losses from the beneficial taxation of dividends at 20 percent within the dividend allowance to active owners of closely held corporations. In order to do this, we need to make some assumptions on what the alternative tax rate is on the dividend that is taxed within the dividend allowance.

Accumulated unused dividend allowances in holding companies can represent around SEK 23 billion in total lost tax revenue in the future, based on 2009 numbers and very simple calculations.

The role of holding corporations is of particular importance. In 2009, individuals had in total accumulated about SEK 90 billion in unused dividend allowances in these corporations. This can have substantial revenue effects at some point in the future as individuals can reduce the tax burden on capital income from shares in unlisted widely held corporations to 20 percent. As capital gains are tax-exempt at the corporate level of the closely held corporation and as these gains are distributed as dividends to the owner, the capital gains tax burden can be reduced by 5 percentage points from 25t to 20 percent, which represents the lower bound of lost tax revenue. Total latent revenue losses in the future based on unused accumulated dividend allowances in holding companies amount to nearly SEK 5 billion in total.[6] To put this into perspective, the overall tax revenue from dividends and capital gains amounted to about SEK 20 billion in 2009. However, if we assume that active owners' labor income is also shifted into the holding company and distributed to the owners as dividends within the dividend allowance, the total tax burden is then at maximum reduced by 25.4 percentage points. Using this tax differential, the upper bound for the latent revenue loss would total SEK 23 billion. And if only a quarter of this is utilized by the owners, the revenue loss still amounts to around SEK 6 billion from the holding companies alone. And as we see from Table 1.1, there are also substantial latent revenue losses in the low turnover corporations and the shell corporations, as well as in ordinary closely held corporations. This poses a particular challenge for tax revenue forecasts in the future, as these latent revenue losses can be realised at any given point in time.

[6] Note that 5 percent is the lower bound of tax savings. Individuals can additionally shift labor income into holding corporations. The tax savings amount to 25.4 percent in this case. As mentioned in the text, the tax savings for capital gains amount to 10 percent and may be as important as dividends.

Table 1.1 Total accumulated unused dividend allowances for active owners of closely held corporations and latent future tax revenue loss

	Accumulated unused dividend allowances 2009, in SEK billion	Total latent future tax revenue loss, in SEK billion	
		Lower bound 5 pp tax differential	Upper bound 25.4 pp tax differential
All closely held corporations	345	17	88
Holding corporations	90	5	23
Low turnover corporations	39	2	10
Shell corporations	17	1	4

The exact size of the latent loss depends on the extent of income shifting and on the tax rate differential, whether one assumes the lower bound of 5 percentage points or the upper bound of 25.4 percentage points. The concentration of dividend allowances among high income individuals is a strong argument in favor of the upper bound being the relevant income shifting estimate for the majority of dividend allowances. However, these numbers are rough estimates and should be interpreted with caution. These latent revenue losses are not intended to be exact estimates, but rather an illustration of the potential revenue consequences of these accumulated dividend allowances.

Evaluation of a tax reform can lead to wrong conclusions if tax bases are considered in isolation. Simultaneous effects on other tax bases need to be considered to give a complete picture of responses.

Income shifting also leads to misleading macroeconomic statistics. From aggregated statistics, one may conclude that the 2006 reform has encouraged entrepreneurship and business activity. Entrepreneurship is generally perceived to be important for job creation and overall economic growth in an economy. But entrepreneurship is hard to measure. A normal proxy for entrepreneurship is new corporate start-ups and start-ups by the newly self-employed. Our main argument against this simple

"count measure" is that wage earners set up new corporations to participate in tax minimising income shifting and to re-label labor income as capital income. We observe an increase in the number of newly founded corporations after 2006. However, as a third of this increase is driven by an uptake of holding and low turnover corporations, simply counting the number of new corporations does not yield a meaningful number.

This has not been a full evaluation of all aspects of the 3:12 rules and the 2006 reform.

In this report we have evaluated some aspects of the 2006 reform of the 3:12 and behavioral responses to them. But this is not a full evaluation of either the 3:12 rules or of the 2006 reform. We find empirical evidence of widespread use of the 3:12 rules for income shifting purposes. The main purpose of this report is to draw attention to the phenomena of income shifting and the challenges it creates for policymaking, tax revenue forecasting, and the interpretation of aggregate statistics. However, many closely held corporations are not based on income shifting and reflect real activity and entrepreneurship. Not all new closely held corporations after 2006 are founded for the purpose of reducing the owner's tax payments. Yet some part of what appears to be entrepreneurship and value creation is in fact income shifting behavior.

To reduce income shifting under the 3:12 rules, the dividend allowance should be made less generous and/or the possibility to carry forward unused dividend allowances should be removed or at least restricted. A revision of control strategies at Skatteverket should also be considered.

In our opinion, there are three main features of the existing 3:12 rules that combined provide both incentives and opportunities for income shifting through a closely held corporation. First, the simplification rule defines very generous dividend allowances, which do not depend on equity, employment, and activity. Individuals can receive dividend allowances in excess of their nominal equity each year. Second, the possibility to carry forward

dividend allowances is of particular interest to shell corporation and holding corporation owners. This allows them to shift income over time. Third, the definition of what constitutes an active owner is not clearly defined in the tax law. And it appears that there is a lack of control of whether an individual who claims to be an active owner is actually active in the corporation's profit generation to a considerable extent.