

IFN Working Paper No. 1000, 2014

## **Swedish Wealth Taxation, 1911–2007**

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September, 2015

**Abstract:** We study the evolution of modern Swedish wealth taxation since its introduction in 1911 until it was abolished in 2007. A thorough description of the rules concerning valuation of assets, deductions/exemptions and tax schedules to characterize effective wealth tax schedules is presented. These rules and schedules are used to calculate marginal and average wealth tax rates for a number of differently endowed owners of family firms and individual fortunes. There was rising trend in the wealth tax rate until 1971 for owners of large and medium-sized firms and for individuals having equally sized similar non-corporate wealth. Average wealth tax rates were low until 1934, except for 1913 when a temporary defense tax was levied. There were three major tax hikes: in 1934, when the wealth tax was more than doubled, in 1948 when tax rates doubled again and in 1971 for owners of large firms and holders of equally sized non-corporate wealth. Effective tax rates peaked in 1973 for owners of large firms and in 1983 for individuals with large non-corporate wealth. Reduction rules limited the wealth tax rates from 1934 for fortunes with high wealth/income ratios. The wealth tax on unlisted net business equity was abolished in 1991. Tax rates for wealthy individuals were lowered in 1991 and in 1992 and then remained at 0.5–1 percent until 2006, depending on whether the reduction rule was applicable. Tax rates for small-firm owners and small individual fortunes were substantially lower, but the difference was much smaller if owners of large fortunes could benefit from the reduction rules. The effective wealth tax became much greater if firm owners had to finance wealth tax payments through additional dividend payouts. In such cases the effective total wealth tax rates were sharply increased as a result of high marginal income tax rates and peaked at extremely high levels in the 1970s and 1980s. Aggregate wealth tax revenues were relatively small: they never exceeded 0.4 percent of GDP in the postwar period and amounted to 0.16 percent of GDP in 2006.

**Keywords:** Wealth tax, Tax avoidance, Entrepreneurship.

**JEL-codes:** H20; K34; D31.

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\* This is the working paper version of a chapter with the same title published in *Swedish Taxation: Developments since 1862* (ch. 6, pp. 267–302), edited by Magnus Henrekson and Mikael Stenkula, New York: Palgrave Macmillan. We are grateful for useful comments and suggestions from Dina Neiman, Mikael Stenkula, Dan Johansson, Gunnar Johansson and Arnold Ross. Financial support from the Jan Wallander and Tom Hedelius Research Foundation and from Karl-Adam Bonniers Stiftelse is gratefully acknowledged.

## 1. Introduction

Modern wealth taxation was introduced in Sweden in 1911 by the *1910 Ordinance of Income and Wealth Taxation*, SFS 1910:115. Various kinds of duties and fees on estates had existed previously, but only for small and specific parts of the tax base and population strata.<sup>1</sup> The 1910 reform conferred an important role to the ability-to-pay principle in the Swedish income tax system, thus making it natural to take advantage of the greater ability to pay tax that possession of wealth gave the taxpayer (SOU 1969:54, 78). A second motive was to compensate for the erosion of other tax bases and growing government financing needs. Likewise, several types of wealth tax were introduced during and between the World Wars in order to fund the military. Finally, beginning in the early 1930s the wealth tax was motivated as a means of redistribution (SOU 1969:54, 8–9).<sup>2</sup>

This chapter provides a detailed analysis of the evolution of Swedish wealth taxation from 1911 until 2007, when it was abolished. The main purpose of the chapter is to calculate long-term annual series of average wealth tax rates for each year during the full period.<sup>3</sup> Such calculations are presented for different representative levels of wealth, accounting for institutional factors affecting tax rates such as reduction rules, deductions, exemptions and valuation rules. Wealth tax rates are presented both for owners of family firms and for owners of individual fortunes.

Our long-run series provides new insights regarding the evolution of wealth taxation in Sweden. Until 1934, taxes were low even for entrepreneurs owning very large firms and for individuals with the largest fortunes. In 1934, unreduced wealth tax rates were sharply increased for owners of larger firms and fortunes rose gradually through the war years and up to 1948 when tax rates were once more sharply raised. The reduced tax rates did not increase significantly before 1940, when the reduction rule did not apply, nor did these tax rates increase in 1948. A third wealth tax hike occurred in 1971 affecting both the reduced and the unreduced rate. Effective tax rates peaked in 1973 for entrepreneurs and in 1983 for other wealth owners. Thereafter, new valuation rules concerning net business equity in family firms lowered tax rates. Additional tax relief was enacted in 1991 and 1992 that led to further tax

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<sup>1</sup> The earliest Swedish estate tax was the “poverty percentage”, a fee of 1/8 of one percent levied on the gross estate value. This tax was imposed between 1698 and the 1830s by local governments to fund local social spending. Probates were also taxed by a stamp duty (*Charta Sigillata*), but this was paid per sheet, and thus the fee was unrelated to the value of the estate. See Rydin (1882), Eberstein (1915) and Ohlsson (2011) for further details.

<sup>2</sup> See Du Rietz, Henrekson and Waldenström (2015) for a further discussion.

<sup>3</sup> The marginal wealth tax is important as well, because it influences the incentives for additional investments (King and Fullerton 1984, 7–8). The focus here, however, is on the average wealth tax, because it determines the wealth tax burden and influences the incentive to continue running family firms.

reductions. This trend continued until the final abolition of the entire wealth tax, effective from January 1, 2007.<sup>4</sup> In the aggregate, the wealth tax was never fiscally important when compared to taxes on income, consumption and social security fees (from 1948 when data exists for aggregate wealth tax revenue).

The chapter is organized as follows. Section 2 presents the rules governing the valuation of assets and liabilities, and in Section 3 we present the different wealth tax schedules from 1911–2006. In Section 4 we examine the impact of the wealth tax by computing average wealth tax rates – including the income wealth tax when applicable – for synthetically constructed family firms and individuals. Most of the focus is on computing the average tax rate on owners of family firms of different sizes (a large medium-sized and small firm, respectively). Section 5 consists of a brief summary and our main conclusions.

## **2. Valuation rules**

### **2.1 General principles**

Wealth taxes were applied exclusively to households, the amount due based on the amount of net wealth. The net wealth of dependent children living with their parents (below the age of 21 until 1968, below 20 from 1969 until 1973, and below 18 from 1974) was included in household wealth. The capital values of insurance and pension rights were excluded from the tax base. For certain types of assets, special valuation rules applied. Real estate was valued at the so-called tax-assessed value (*taxeringsvärdet*), which was supposed to be roughly 75 percent of the market value. The value of co-operative building society flats was set to the member's share of the society's wealth. Personal property was to correspond to the market value, and a business was valued as its market value, estimated by trustees. Some asset categories were listed at a fraction of their market value. For example, stocks registered on a stock exchange were (in some periods) listed at less than their full market value (at 80 percent from 1997 until 2006; at 75 percent from 1978 through 1996; and at 100 percent prior to 1978). From 1978 unlisted shares (on the so-called O-list, an informal listing) and other OTC-shares were assessed at only 30 percent of their quoted or book value. Forest holdings (*skogskonto*) were listed at half their market value. The inventories of small firms and stock-in-trade were at times also valued below market value.

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<sup>4</sup> In fact, the wealth tax was abolished in 1994 by the then non-socialist government. The abolition was to come into effect January 1, 1995, but the repeal was annulled by the newly elected Social-Democratic government in the late autumn of 1994. For a discussion of why the wealth tax was abolished in 2007, see Henrekson and Du Rietz (2014, 30–32).

The principal valuation rule for the wealth tax was that companies should be valued at expected sales value. For public companies that implied the market capitalization of the firm. For private companies, where the expected sales value is difficult to assess, the alternative valuation made in practice was book net equity value (net worth).

## 2.2 Reduction rules and total tax caps

Certain reduction rules were enacted to mitigate the effect of the wealth tax for individuals with low current income in relation to wealth. The first reduction rule was introduced in 1934, jointly with the 1934 separate wealth tax. If taxable wealth exceeded 25 times taxable income from labor and capital, taxable wealth was lowered to that limit. The reduction rule often significantly reduced the taxable wealth and thus the wealth tax for many wealthy individuals. To prevent the tax caps from becoming overly generous, a minimum tax floor was introduced, stipulating that the wealth tax could never be reduced below the tax due on half of taxable wealth.<sup>5</sup> This minimum tax floor was temporarily lowered to 40 percent in 1938–1939. During World War II and just afterwards, from 1940 through 1947, no reduction rule applied (SOU 1969:54, 79–81).

In connection with the 1947 state income tax reform, the maximum taxable wealth was changed to 30 times taxable income. Also, a new provisional *total* tax cap rule was introduced. This rule, effective from 1948, limited the sum of local plus state income taxes and wealth tax for individuals to at most 80 percent of income subject to state income tax.<sup>6</sup> However, this total tax limit was restricted in that the tax reduction could not exceed the amount of the state income tax (SOU 1969:54, 82–83).

From 1971 and onwards, there was a total tax cap of 80/85 percent of total state taxable income (labor plus capital income), inclusive of wealth tax. The cap amounted to 80 percent of state taxable income below SEK 200,000,<sup>7</sup> and 85 percent on exceeding income (SOU 1977:91, 231–233). The main objective of the 80/85 percent rule was the same as for the earlier reduction rules, to ease taxation on low-yield assets. Beginning in 1984 the average total tax cap was lowered to 75/80 percent.

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<sup>5</sup> For example, if a taxpayer's wealth was SEK four million, but he had no current income; taxable wealth was reduced to SEK two million. If a taxpayer's current income was SEK 100,000, his taxable wealth was reduced to SEK 100,000 x 25 = SEK 2.5 million.

<sup>6</sup> A similar tax cap also applied from 1941 until 1944 and then again in 1947, but this cap only limited the state income tax (SOU 1969:54, 82).

<sup>7</sup> SEK = Swedish kronor. There were roughly five Swedish kronor to the US\$ during the Bretton Woods era. In recent decades the exchange rate has, with few exceptions, oscillated between six and nine kronor to the dollar.

After the 1990/91 tax reform the tax cap was significantly lowered: Total tax payments, including wealth tax, were capped to 55 percent of taxable income (labor plus capital income). This cap was raised to 60 percent in 1995 and remained at that level until the wealth tax was repealed (SOU 2002:47, 441).

However, throughout the entire 1948–2006 period the wealth tax could not be reduced below the amount due on 50 percent of taxable wealth (SOU 1969:54, 83). This rule provided a well-defined floor on wealth tax payments.

To account for the effect of the reduction rules in a tractable manner we make the following two reasonable assumptions: (i) the reduction rules exclusively applied to owners of medium-sized and large firms and equally wealthy individuals; and (ii) when the reduction rules applied, the individuals in question paid the minimum wealth tax, that is, the tax due on half their taxable wealth. The reduction rules could significantly lower the wealth tax due, but not necessarily sufficiently in all cases to avoid having a total tax load exceeding 80 percent of total taxable income (85 percent after 1971 for high-income earners). For the owners of the large and medium-sized firm and persons with comparable non-corporate wealth, we will calculate total wealth tax in both sets of circumstances, that is, when no reduction rule applied and when the tax floor was binding. That combination gives for each year a well-defined interval for the actual payment of wealth tax for a particular individual at that wealth level.

### **2.3 Valuation reliefs for net business equity of unlisted firms**

Throughout the twentieth century the corporate tax code has granted relief in the valuation of business capital in the form of favorable rules for valuation of machinery, inventories and stock-in-trade (see Du Rietz, Johansson and Stenkula 2015b). However, in the wealth tax code such relief was not introduced for closely held (private) companies until 1971. The purpose of reducing the wealth tax on business assets was to facilitate the transfer of ownership to the next generation of the family (SOU 1971:46, 127). The owner obtained a 25 percent reduction on the part of net corporate assets exceeding SEK 500,000, but for corporate assets below this level there was no reduction. Eligibility for such valuation relief was well-defined: Total firm equity had to be below SEK two million, and at least 75 percent of the firm had to be owned by the entrepreneur alone or together with a maximum of eight other persons (SOU 1971:46, 128–134).

In 1974, the 1971–1973 tax relief was modified and extended by allowing stock-in-trade and inventories to be undervalued. The new valuation rules stipulated that the lower value of either acquisition cost or replacement value were to be used as a basis for taxation. An

additional five percent was then deducted for obsolescence, and finally the remainder was written down by a further 60 percent (Englund 1975, 62). In the tax rate computations below we have interpreted the deliberate underestimation of stock-in-trade and inventories from 1974 until 1977 to have resulted in an assessment at 40 percent of net business equity.

In 1978, the valuation relief for unlisted businesses became more generous. Unlisted firms were valued at 30 percent of book net equity value (assets less liabilities). This valuation rule was in force until the wealth tax for unlisted corporate equity was repealed in 1991.

### **3. Tax schedules**

To understand how the wealth tax normally worked in practice, one must consider the structure of marginal and average wealth tax rates, tax brackets, the scope for deductions, the valuation rules for assets and the rules for reductions of the wealth tax.

In 1910 the combined income and wealth tax was introduced, and was in effect from 1911 through 1919. From it the income wealth tax and a separate wealth tax arose.

#### **3.1 The combined income and wealth tax, 1911–1919**

The marginal tax rates in the combined income and wealth tax in the 1911–1919 period varied between 1.7 and six percent (Table 1).<sup>8</sup> Part of a taxpayer' net wealth was added on top of global (labor plus capital) income. The share of wealth that was added to the income tax base varied over time. It was 1/60<sup>th</sup> from 1911 through 1938 and one percent from 1939 through 1947, but in one year it was temporarily as high as ten percent due to the 1913 defense tax. For wealthy high-income earners the wealth tax at times was so large that the income-taxed imputed income from wealth covered several tax brackets. The amounts in each bracket were then determined at different marginal tax rates. This was particularly true following the 1913 defense tax. There was also a cap that limited the average income tax to at most five percent.

The income wealth tax was levied from 1911 to 1948, but the marginal tax rates were increased several times (especially in 1920 and 1939), which increased the tax burden. Because of World War I, several additional temporary taxes were introduced to finance military expenditures. These taxes were constructed in a way similar to the regular income and wealth tax, that is, part of net wealth was included in the income tax base and thus increased the effective income tax. The temporary war taxes affected only individuals with

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<sup>8</sup> All tables are presented in the main text.

high income or large wealth, but the tax schedules were highly progressive with the result that those affected were often hard hit (SOU 1969:54, 77–79; Söderberg 1996, 11). These temporary surtaxes, particularly the business cycle tax (*krigskonjunkturskatten*; literally “the war boom tax”), were also in part motivated by the recognition that many firms made extraordinarily large profits during the war.<sup>9</sup>

The first of these surtaxes was the temporary 1913 progressive defense tax which was due in 1914, but calculated on the basis of 1913 income (Table 2). It was an extraordinary tax, hence the ordinary 1911 income and wealth tax also applied. The defense tax was levied on individuals with an income of at least SEK 5,000 ( $\approx$  five average annual wages for a full-time production worker, henceforth APWs) or with taxable wealth exceeding SEK 30,000.<sup>10</sup> The tax due could be paid in installments over a three-year period (1915–1917) (Genberg 1942, 6). It was particularly onerous for wealthy persons as ten percent of personal wealth was added to taxable income (compared to 1/60<sup>th</sup> in the ordinary income and wealth taxation) (SOU 1969:54, 77–79; Söderberg 1996, 11). The average tax rate was 1.5 percent for an income of SEK 5,000 and the marginal tax rate was 2.5 percent (Table 2). The top tax rate went as high as 13.5 percent and applied to income exceeding SEK 225,000 ( $\approx$  212 APWs in 1913).

Olsson (2006, 342) offers the case of the Minister of Foreign Affairs Knut A. Wallenberg’s (KAW) income to illustrate how heavy a burden the 1913 defense tax could be on individuals having very high income and wealth. In 1913, KAW received a salary and bonus (before he became Minister of Foreign Affairs and his salary dropped) totaling SEK 215,000 from Stockholms Enskilda Bank. In addition, he received dividends of roughly SEK 500,000. KAW’s total income – excluding income-taxed wealth – thus amounted to SEK 715,000. Ten percent of KAW’s wealth was added to income (global income, that is, the sum of labor and capital income). Since his taxable wealth amounted to SEK 15 million, his taxable income increased by SEK 1.5 million. The highest state marginal income tax rate of the 1913 defense tax (13.5 percent) was normally levied on taxable income exceeding SEK 225,000. Given that KAW’s taxable income before the wealth tax stood at SEK 715,000, the SEK 1.5 million was thus taxed at the highest marginal rate of the defense tax. However, there was a tax cap in the 1913 defense tax which limited the tax to at most 12 percent of taxable income. The bottom line was that the income wealth tax of the defense tax levied on KAW

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<sup>9</sup> From 1913 through 1916 Swedish exports of iron ore, metals, timber, paper and pulp increased dramatically in volume and prices almost doubled. The chief reason was that the Central Powers (mainly Germany and Austria-Hungary) increased their demand from Sweden when—due to the trade boycott by the Entente—these countries could no longer trade with the UK, France or Russia (Olsson 2006, 300).

<sup>10</sup> The average annual wage for a full-time production worker was almost exactly SEK 1,000 in 1913.



was SEK 180,000 (0.12 x 1.5 million), which amounted to 1.2 percent of his wealth. Few individuals (and no firms) were affected by the 1913 defense tax, but among those affected many paid substantial amounts.

Furthermore, and in a similar vein, an extra income and wealth tax was levied in 1918 and 1919 (Table 2), as well as a supplementary tax (Table 3) on incomes above SEK 100,000 in 1918.<sup>11</sup> These surtaxes were similar to the 1913 defense tax in being designed to apply exclusively to very large incomes and fortunes (Söderberg 1996, 11). The 1918 supplementary tax had several upper bracket thresholds (between SEK 100,000 and 925,000). KAW avoided the 1918 and 1919 surtaxes and subsequent wealth taxes by having already donated in 1917 the bulk of his fortune to a tax-exempt foundation, the Knut and Alice Wallenberg Foundation.

### **3.2 The combined state income and wealth tax, 1920–1938**

The 1919 combined state income and wealth tax was implemented in 1920 (Table 4). It replaced the 1910 ordinary tax along with earlier temporary defense taxes, and was in effect through 1938 (see Du Rietz, Johansson and Stenkula 2015a). The state income tax schedules were revised and made flexible. The structure of the new state tax system – tax brackets, base amounts and marginal tax rates – was fixed, but the effective total tax rates were now flexible. Politicians would henceforth annually determine the so-called withdrawal percentage of the tax (*uttagningsprocent*), thus allowing for easy upward and downward adjustments in the state income and wealth tax rates in accordance with perceived “needs”.

Another innovation within this new income tax was the introduction of state and local income tax allowances. Furthermore, local taxes paid were now deductible from the state income tax base in the subsequent year. The system was progressive, with base marginal income tax rates running from three to 15 percent. To calculate the total tax rates, the base tax rates were multiplied by the withdrawal percentage for the year in question (see Table 4). As before, there was a tax cap, which restricted total tax payments to a maximum of 12 percent of taxable income. The lowest tax bracket was very wide (the threshold for the upper limit was more than three times the average wage of a production worker in 1920) and thus included the majority of taxpayers.<sup>12</sup> As a result, even though the new income tax schedule comprised 13

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<sup>11</sup> This amount corresponded to 49 APWs (SEK 2,054 in 1918), or to SEK 19 million in 2013 prices.

<sup>12</sup> In 1920, about 98 percent of all persons declaring a taxable income paid the lowest marginal state tax rate or no state income tax at all (Statistics Sweden 1923).

tax brackets with rising marginal income tax rates, the tax schedule was proportional for low- and middle-income earners.

Several new additional temporary state income taxes were introduced alongside the 1920 ordinary state income and wealth tax. Wealth taxation was thus raised by the 1920 local progressive income tax (*1920 års kommunala progressivskatt*, Table 5), which had the same base as the ordinary income and wealth tax (SOU 1969:54, 78). The marginal tax rates varied from 0.5 to eight percent (Table 5). The 1920 local progressive income tax was replaced by the 1928 local progressive income tax (Table 6). The structure of the local tax system was changed, so that 1/4<sup>th</sup> of the 1920 local tax was transformed into a separate state income tax called the state equalization tax (*statliga utjämningskatten*; Table 7). Revenues from this new state tax were used to compensate municipalities having weak tax bases or high expenditures. The tax was slightly progressive, but the tax rates were modest (the top marginal tax rate was 1.5 percent) until 1934, when it was doubled to three percent (Table 8).

The depression in the early 1930s led to shrinking tax bases and the need to finance increased public expenditures, which was partly compensated for in 1932 by another temporary tax – the state extra income and wealth tax (Table 9). This extra income tax was slightly progressive but only affected taxpayers having taxable income exceeding SEK 6,000 (about 3.5 APWs). The top marginal tax rate was four percent. Sweden did not escape the prolonged global retrenchment, and the extra income tax rates were doubled in 1936 (Table 10).

### **3.3 The separate wealth tax of 1934 and 1938**

A separate wealth tax was introduced in 1934, alongside the income wealth tax. It applied until 2007. This wealth tax levied specific marginal wealth tax rates in different brackets *directly* on net wealth (not taxing added wealth by marginal income tax rates), normally resulting in higher wealth taxes. Initially, the exemption was high – SEK 50,000 – which was more than the net worth of many small and medium-sized firms (see Section 4 below). The tax rates varied between 0.1 and 0.5 percent. The introduction of the separate wealth tax in 1934 also entailed, as described in Section 2.2, a reduction rule prohibiting levying wealth taxes on asset values exceeding 25 times taxable income (including income taxed wealth). To prevent the tax caps from becoming overly generous, a minimum tax floor was implemented, stipulating that the wealth tax must never be reduced below the tax due on half of taxable wealth. This minimum tax floor was temporarily lowered to 40 percent in 1938 and 1939. No floor was applied from 1940 through 1947.

Effective from 1939, tax rates were slightly increased (to a maximum of 0.6 percent). The exempted amount was more than halved to SEK 20,000 in the separate wealth tax, which from then on became an integral part of the ordinary tax system by virtue of the 1938 particular tax on wealth (applicable in the 1939–1947 period; see Table 16).

Despite the 1939 reduction of the tax exemption, it was still sufficiently high to exempt many owners of small firms from the separate wealth tax (see further Section 4.1 on family firms). The 1939–1947 defense tax increased the wealth tax rate for larger firms despite the reduction of the part of wealth added to income from 1/60<sup>th</sup> to one percent and the fact that the progressive local tax, the state equalization tax and the extra state income and wealth tax were all repealed (Du Rietz, Johansson and Stenkula 2015a). However, only taxpayers having taxable income exceeding SEK 6,000 (between two and three APWs during this period) paid the temporary income and wealth taxes in the 1920–1938 period. The tax rates in the ordinary income and wealth tax that affected almost all taxpayers were increased in 1939 by the 1938 income and wealth tax (SFS 1938:369) to compensate for the repeal of the temporary taxes. The temporary wealth taxes were thereby broadened and made permanent. Revenues from the state income tax were now partly seen as a relatively stable way to finance social expenditures.

### **3.4 The combined state income and wealth tax, 1939–1947**

The 1938 income and wealth tax (Table 11) applied from 1939 through 1947 and consisted of a flexible tax rate (the “bottom tax”/*bottenskatt*), which was determined annually by Parliament, and a fixed tax rate (the surtax/*tilläggs-katt*). That is, this income and wealth tax was partly constructed in the same way as the one it replaced. The bottom tax was only slightly progressive, while the surtax was highly progressive, but only levied on income exceeding roughly three APWs. All these changes resulted in increased progressivity of the income tax. The part of wealth that was added and taxed as state income was reduced from 1/60<sup>th</sup> of a taxpayer’s wealth, in effect from 1911 through 1938, to one percent from 1939 through 1947.

Although the state equalization tax and the extra income tax were abolished to simplify the tax system, a new defense tax (*värmskatt*) was introduced in 1939 (Table 12). This was a highly progressive combined income and wealth tax payable by most taxpayers. It was raised in 1940 (Table 13) and in 1942 (Table 14), and in effect through 1947. The reasoning behind this tax was analogous to that behind the World War I defense tax, motivated by the need to strengthen Swedish military capacity. But it is also clear that the government had an

increasing interest in raising taxes for social and redistributive purposes (Rodriguez 1981, 32–33). Due to rising military tensions throughout the world at that time, there was broad consensus about the need to ramp up capacity and thus little debate or criticism of the 1938 tax reform. In practice, the new income and wealth tax (1939–1947), the defense tax (1939–1947) and high inflation and wage increases all combined to cause a sharp increase of marginal income tax rates for most taxpayers (Du Rietz, Johansson and Stenkula 2015a). The wealth tax rate also increased significantly in the 1939–1947 period (see Figures 3–5 and 11–13).<sup>13</sup>

### **3.5 The separate wealth tax, 1947–2006**

The combined income and wealth tax was motivated by the notion that current income from wealth could be taxed more heavily than labor income (current capital income was taxed jointly with labor income) and therefore additional income could be imputed and taxed. It was also judged that the combined system adhered more closely to the ability to pay principle.

By the *1947 Royal Ordinance* (Table 17), wealth taxation was defined in a separate law, independent of the income tax law. The former system was abandoned for two reasons: (i) to attain greater simplicity, and (ii) an increasing awareness of its disincentive effects when marginal tax rates were becoming much higher (SOU 1969:54, 78–80). In 1910 the highest marginal tax rate was a mere 12 percent, while it exceeded 70 percent by the mid-1940s (Du Rietz, Johansson and Stenkula 2015a).

As noted in section 2.1, taxable wealth was defined as the value of assets minus debt. Real estate was set equal to the tax-assessed value (*taxeringsvärdet*); personal property (*lösöre*) should correspond to market value; periodic payments were valued according to capitalized values determined by the tax authority; and listed stocks and bonds at quoted values. For stocks in closely held firms without dividends the value of equity was set to the difference between assets and liabilities at book value. For other Swedish stocks, values were often based on the capitalized value of dividends, the so-called earnings value (SOU 1969:54, 54). The 1947 wealth tax schedule, applicable from 1948, increased tax rates sharply (Table 17), compared to the 1938 separate tax on wealth (Table 16), with tax rates ranging from 0.6 to 1.8 percent. With the introduction of the new state income tax in 1948, the old combined

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<sup>13</sup> To repeat, prior to the introduction of the 1938 separate tax on wealth in 1939 (Table 16), wealth was taxed by the ordinary income and wealth tax (1920–1938), the local progressive tax (1920–1938), the 1928 equalization tax, the 1932 extra income and wealth tax and by the separate wealth tax (1934–1938) (SOU 1969:54, 79).

income and wealth tax as well as the income wealth tax were discontinued (SOU 1969:54, 54ff).

In the 1950s and 1960s unreduced direct wealth tax rates continuously increased through bracket creep. This occurred in spite of the fact that the top marginal tax rate remained unchanged at 1.8 percent until 1970 (Table 21) when it was temporarily raised to 2.5 percent (Table 22 and 23). In 1981–1982, the average wealth tax rates decreased (Table 24), when bracket boundaries were raised to adjust for inflation. A final, temporary, wealth tax hike was implemented in 1983 (Table 25).

In 1984, the top marginal tax rate was reduced from four to three percent (Table 26 and 27), and further to 2.5 percent in 1991 (Table 28) and 1.5 percent in 1992 (Tables 29–33).

The taxation of wealth before 1948 was a complex – to put it mildly – combination of wealth and income taxation, making it impossible to fully define its aggregate importance. However, that is possible in the 1948–2006 period, when a pure wealth tax was in effect. Figure 1 shows wealth tax revenue as a share of total central government tax revenue and of GDP during that period. It is clear that, with the exception of the temporary surge in wealth tax revenue around 1950, wealth taxation was of minor importance as a source of revenue for the central government. Revenue from wealth taxation typically varied from 0.5 to one percent of total state tax revenue from the early 1970s until 2006. As a share of GDP it averaged just 0.2 percent, never exceeding 0.4 percent.

[Figure 1 about here]

## **4. The evolution of wealth tax rates for Swedish family firms and individuals**

### **4.1 Family firms**

In order to depict how the Swedish wealth tax rates evolved, we will present estimated average wealth tax rates for synthetically constructed family firms and individuals over the entire life-cycle of the law, from its inception in 1911 until its abolition in 2007. Throughout the analysis, each of three standardized firms has only one owner whose total wealth is invested in his/her firm; we calculate annual average wealth tax rates as a percentage of net business equity during the entire period. The tax rates are applied to three differently-sized family firms: one large, one medium-sized and one small firm.

The large firm has a net worth assumed equal to 1,000 average annual wages for a full-time production worker (1,000 APWs), and therefore has a starting wealth in 1911 of SEK

986,000, which increases to SEK 261 million in 2006. The marginal tax rate of the large firm owner is assumed to be equal to the top marginal tax rate in the case of tax on dividends but lower (three APWs) in the case of income tax on the income-taxed wealth (see Figure 2).<sup>14</sup> The number of firms of this size in the late 1960s has been estimated to be fewer than 100.<sup>15</sup> The medium-sized firm is assumed to have a nominal equity equal to 100 APWs, and thus has an initial wealth of SEK 98,600 in 1911, which increases to SEK 26.1 million in 2006. The marginal tax rate of the owner of the medium-sized firm is assumed to be the same as for an employee earning 1.67 times the wage of an average worker.<sup>16</sup> The small firm is assumed to have nominal net business equity of ten APWs or SEK 9,900 in 1911, and 2.61 million in 2006.<sup>17</sup> The marginal tax rate is assumed to be equal to the marginal tax rate for the owner of the medium-sized firm (1.67 APWs).

[Figure 2 about here]

Figure 3 depicts the long-run evolution of the unreduced direct wealth tax rate incurred by the owner of a large family firm with equity of SEK 261 million in 2006 (almost 30 million euros at the time). The assessed tax rate has varied greatly over time, increasing in the postwar era and peaking in the early 1970s, and then falling to zero from 1991 onwards. Until 1934, the wealth tax hovered between 0.1 and 0.2 percent. The one exception was the year 1913 when the defense tax sharply, albeit temporarily, increased the wealth tax to 0.82 percent.<sup>18</sup>

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<sup>14</sup> We assume that the extra dividend that the owner withdraws from his firm to pay the direct wealth tax is taxed at the top marginal tax rate. In the case of income tax on the income-taxed wealth, we have computed the total extra income tax by adding (particularly in 1913) the income-taxed wealth on top of the salary using several marginal tax rates, which means that the average marginal tax is lower than the top marginal tax rate.

<sup>15</sup> According to the report of the Capital Taxation Committee (*Kapitalskatteberedningen*, SOU 1969:54, 209) there were 377 private fortunes larger than SEK five million in 1968. A considerable share of these fortunes was probably in the form of corporate equity. The net equity of the owner of our large firm was SEK 23 million in 1968. This indicates that in 1968 there probably existed no more than 100 corporations as large as our large firm. Our medium-sized firm had equity of about SEK 2.3 million in 1968. According to the same source, in 1968 there were 4,800 fortunes exceeding SEK one million.

<sup>16</sup> An annual income of 1.67 APW is used to attain consistency with other studies in the overall project (e.g., Du Rietz, Johansson and Stenkula. 2015a), and because this is one of three income levels used by the OECD when comparing effective marginal tax rates across countries, e.g., OECD (2011). The other two levels used by the OECD are 0.67 and 1 APW.

<sup>17</sup> The size of our synthetically constructed firms is chosen so as to be fully comparable with the analysis in the companion paper on Swedish inheritance and gift taxation (Du Rietz, Henrekson and Waldenström 2015). In that study it is assumed that there are two heirs, each inheriting 50 percent of the firm.

<sup>18</sup> The owner of the large firm (is assumed to have) had a salary of SEK 3,185 (3 APWs) and firm equity of SEK 1,061,500 in 1913. The wealth subject to income taxation amounted to SEK 106,150 (10 percent of 1,061,500). The wealth tax on this amount was SEK 8,047 + SEK 636 in ordinary income and wealth tax, thus totaling = SEK 8,683. Hence, the total average tax for the two taxes combined was  $8,683/1,061,500 = 0.82$  percent. The

[Figure 3 about here]

A permanent rise in unreduced wealth taxation occurred in 1934 with the introduction of the separate wealth tax, in effect tripling the entrepreneur's wealth tax rate to 0.63 percent. The 1938 income and wealth tax, effective from 1939 (Table 11), and the defense taxes in 1939–1947 (Tables 12–14) resulted in a gradual increase of the direct wealth tax rate by more than 50 percent (from 0.63 to one percent) for the large firm. The next tax hike occurred in 1948 when the new 1947 wealth tax (Table 17) increased the direct tax rate from one to 1.8 percent. Large firm owners, however, by using the rule that reduced taxable wealth to at most 25 times taxable income but at least 50 percent of taxable wealth in 1934–1937 and 40 percent of taxable wealth in 1938–1939, avoided wealth tax increases until 1940, when the reduction rule no longer applied. The repeal of the reduction rule more than tripled the effective tax rates.

The wealth tax schedule proposed by the Capital Taxation Committee in 1969, and subsequently enacted and effective from 1971, led to a further substantial increase of the average direct tax rate from 1.8 to almost 2.5 percent. The top marginal tax rate was increased from 1.8 percent in the period 1948–1970 to 2.5 percent in 1971–1973 (Table 22). The unreduced wealth tax rate then increased sharply to 2.47 percent, while the reduced wealth tax stabilized at 1.2 percent of firm equity.

In 1974, tax authorities allowed a greater undervaluation of firms' stock-in-trade and inventories, leading to the unreduced wealth tax rate being more than halved from 2.5 to one percent.<sup>19</sup> The wealth tax on corporate equity dropped further in 1978 to 0.7 percent when only 30 percent of the net worth (*substansvärdet*) of firms was subject to wealth taxation, but then with increased tax rates in 1983 rose temporarily to 1.2 percent. It decreased to 0.9 percent in 1984, when the top marginal tax rate was reduced from four to three percent. The reduced wealth tax rate also dropped in 1974, from 1.2 to 0.5 percent, and then to 0.4 percent in 1978. It remained roughly at that level until the wealth tax for corporate equity was abolished in 1991.

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assumed salary of three APWs is arguably on the low side for a large-firm owner. On the other hand, it is not unreasonably low considering that retained earnings were taxed much more lightly; there was no capital gains tax and the 1913 extra defense marginal tax schedule was highly progressive and applied alongside the ordinary 1911–1919 tax schedule.

<sup>19</sup> The impact of this alleviation was not uniform across industries. Service sector firms with small stocks and limited inventories were relatively disfavored.

Turning to the medium-sized firm (with an equity of SEK 26.1 million, or almost three million euros in 2006), Figure 4 shows the average tax rate paid by the owner of such a firm. The long-run trend resembles that of the large family firm, but at a lower level. Before the introduction of the separate wealth tax in 1934, the medium-sized firm owner paid below 0.1 percent in wealth tax with the exception of 1913 when the defense tax increased the wealth tax rate to 0.19 percent. In 1934, the average full direct tax rate increased to 0.21 percent, and then to 0.39 percent in 1939. It gradually increased until 1948 when it more than doubled again, to 1.35 percent. The tax rate continued upward to 1.52 percent in 1952, and peaked two decades later in 1973 at 1.7 percent, despite the 1971–1973 small-firm relief. It fell considerably in the 1974–1977 period to barely 0.8 percent as a result of the lower valuation of inventories and stock-in-trade. In 1978 it decreased to 0.6 percent as a result of the 30 percent valuation rule, and then fell to zero in 1991 when the wealth tax for unlisted firm equity was abolished (Regeringens proposition 1991/92:60, 1). Thanks to the reduction rule, the wealth tax rate did – analogous to the large firm – hardly increase in 1934, only somewhat in 1939, but then climbed steeply from 1940 through 1947 when no reduction rule applied.

In 1948 the reduction rule, which limited taxable wealth to 30 times taxable income but at least half of taxable wealth, began to apply. This resulted in an effective direct wealth tax rate of 0.47 percent, a significant drop compared to the unreduced tax rate of 1.35 percent. During the 1950s and 1960s, both the unreduced and the reduced direct wealth tax rate increased slowly, but the reduced tax rate level remained at less than half the level of the full tax rate.

[Figure 4 about here]

Figure 5 shows the average direct wealth tax rate paid by the owner of the small firm (with an equity of SEK 2.61 million or about 0.3 million euros in 2006). The average direct tax rate began at 0.02 percent in 1911, increased to just below 0.1 percent between 1919 and 1939, to 0.2 percent from 1940 through 1947 and to around 0.3 percent in 1948. The wealth tax rise in 1948 – when the high and progressive separate wealth tax schedule was introduced – was abated by the fact that the income wealth tax was discontinued at the same time that the separate wealth tax was increased. However, the 1948–1953 tax schedules continued to increase the wealth tax rate until it peaked in 1951 and 1952 at 0.4 percent, because the size of the exemption (SEK 30,000) was unchanged through 1952 despite very high rates of inflation in 1951–1952.



Between 1954 and 1973, the average wealth tax rose from 0.23 to 0.73 percent as an increasingly larger fraction of firm equity exceeded the exemption level. In addition, the net business equity of our small firm owners did not exceed SEK 500,000, which excluded the owner from the 1971–1973 small firm asset relief.<sup>20</sup> From 1974, the lower valuation rules for corporate equity diminished the wealth tax drastically to zero for small-firm owners, apart from a low positive rate in 1976, 1977, 1980 and 1989. As already noted, we have assumed that the reduction rules were not applicable for the small-firm owner, because the level of wealth was too low in relation to income.

[Figure 5 about here]

When calculating the wealth tax rate, one important aspect is how the entrepreneur manages to finance the wealth tax payment. Selling off assets or stock to pay the direct tax minimizes additional taxes incurred. In practice, that strategy may not always have been feasible or even desirable. One readily available and commonly used option for entrepreneurs to finance wealth tax payments was by means of additional dividends. This was more expensive than selling off stock, since dividends were taxed jointly with labor income until 1991. Thus, owners had to pay labor income tax on these dividends before the remainder could be used to meet wealth tax obligations. Family firm owners could extract an extra salary payment from the company to pay the tax. The problem here was that this would give rise to additional taxation at an even higher rate, since in addition to the ordinary labor income tax the firm would also have to pay social security fees (including payroll taxes).

On the other hand, it should be noted that before any dividend payments could be made from a firm, corporate tax had to be paid on the profits. From 1951 until 1990 the statutory corporate tax rate was never below 46 percent, and in the 1970s and 1980s it was on average roughly 55 percent (Davis and Henrekson 1997). Thus, in order to generate sufficient after tax dividends to pay the wealth tax in the early 1970s, the large firm required a rate of return on equity of up to 18 percent before tax.

Finally, owners could simply take loans to finance tax payments, at least in theory. Debt financing was a favorable mode of payment because it did not give rise to the extra income taxes associated with dividends. However, this strategy was normally not an option until the

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<sup>20</sup> For wealth up to SEK 500,000 there was no valuation relief (SOU 1971:46, 127). See also Du Rietz, Johansson and Stenkula (2015b) and Section 2.3.

mid-1980s, because of the strict quantitative regulation of credit markets.<sup>21</sup>

In short, in addition to the wealth tax, owners potentially faced high indirect wealth-related taxes. During the 1970s and 1980s, when the marginal dividend tax was at 70 percent or above, and as much as 85 percent in the 1977–1981 period, these indirect taxes were almost prohibitive.

Our calculations account for such extra dividend indirect taxes for our three standard firms. As the extra dividend could be taxed at a very high marginal tax rate, the wealth tax imposed a much higher total tax burden than indicated by the wealth tax rate *per se*. This sometimes entirely eliminated the real rate of return and could, everything else being equal, jeopardize the survival of the firm. A better option could therefore be to sell the firm. In Figure 6, we have recalculated the effective average tax rate, assuming that the entrepreneur finances the wealth tax on the net worth of the large firm by an extra dividend payout. This significantly increased the tax associated with wealth (although formally it was an additional dividend tax). From the late 1940s until 1990 the effective unreduced wealth tax financed through dividends was – for the large firm – invariably above three percent, and for most of these years it hovered between four and six percent. From the early 1970s until the mid-1980s it was, with few exceptions, extremely high. It peaked in 1973 at 11 percent of owners' equity, five times the direct wealth tax.

[Figure 6 about here]

For owners who got away with paying the minimum tax stipulated by the floor in the reduction rule, the total wealth tax rate (including tax on extra dividends) hovered around three percent from 1940 through 1970 and peaked above five percent in the years 1971–1973. See Figure 7.

[Figure 7 about here]

For the owner of the medium-sized firm with a salary 1.67 times the average production worker (1.67 APWs), the effective average wealth tax – including the extra dividend tax – reached two percent in 1949. This increased to three percent in 1963 and peaked at over four

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<sup>21</sup> Even if there had been no quantitative restrictions preventing such lending it would have been difficult to find a credit institution willing to grant loans to be used to pay taxes likely to arise every year for the foreseeable future, and entrepreneurs are unlikely to be willing to use personal borrowing to meet tax payments year after year, thereby gradually increasing their financial risk.

percent in 1971–1973 if no reduction rule applied (Figure 8), and at almost two percent when the reduction rule applied (Figure 9). The effective average wealth tax for the small firm owner reached one percent in 1966 and peaked at 1.9 percent in 1973 (Figure 10).

[Figure 8–10 about here]

Due to the fact that entrepreneurs were forced to withdraw funds from their firms to pay wealth tax (unless they were willing to sell part of the firm to pay the tax), running large family firms became extremely unfavorable from the 1960s through the 1980s.

Finally, when we look at the wealth tax rates of all three firm types together, both clear similarities and differences become apparent. First of all, they all follow largely the same time trend in taxation, starting off from a relatively low level in the years before World War II. After the war, tax rates increased sharply until 1973. In 1974, these high levels dropped due to the comprehensive valuation reductions described previously.

In terms of tax levels, the experiences of the three differently sized family firms diverge significantly. Comparing the large and the medium-sized firm, the effective total tax rate of the large firm owner (including extra dividend tax) was roughly twice the effective rate for the owner of the medium-sized firm. This was true both for the unreduced and the minimum wealth tax rate. In contrast, for the small-firm owner the direct wealth tax rate for most years was relatively low. The main exception is the decade 1963–1973, when it consistently exceeded 0.4 percent. In 1974, the small firm tax rate fell to zero.

#### **4.2 Private individuals**

Figures 11, 12 and 13 present the wealth tax rates paid by the three individuals whose level of wealth corresponds to the corporate wealth of the owners of the large, medium-sized and small family firm, respectively, as discussed in the previous subsection. Unlike for family firms, we only calculate the direct wealth tax for individuals, since wealthy individuals typically can sell some assets – or borrow – in order to pay the wealth tax. However, in practice individuals often must pay capital gains tax when selling assets, an important factor which needs to be acknowledged as it implies that we tend to underestimate the total effective tax.

In 1978 listed stock was valued at 75 percent of the quoted value, motivated by the latent capital gains tax. This was raised to 80 percent in 1997. Real estate was taxed based on the assessed value, intended to be 75 percent of the market value. On these grounds, it is assumed

that the average valuation of non-corporate assets was 100 percent before 1978, and 75 percent from 1978 onwards.

Figure 11 shows that wealthy individuals – with fortunes equivalent to the owners of family firms – faced the same direct wealth tax rates as the firm owners in all years through 1973. If the maximum reduction rules applied, the wealth tax rate fell to approximately 0.2–0.3 percent in the period 1934–1939. In 1940 it then rose sharply to 0.9 percent when no reduction rule applied and further to 1.2 percent from 1971 until 1977, finally peaking at 1.47 percent in 1983. The tax rate fell to 0.6 percent in 1991–1992 and stayed at that level through 2006. With the introduction of the valuation relief for unlisted net business equity in 1974, effective wealth taxation of the two types of wealth holders began to diverge. The beneficial treatment of unlisted firm equity was reinforced through the tax rules introduced in 1978. Such beneficial treatment was not extended to non-corporate wealth. As a result, wealthy individuals paid between two and almost three times more than the medium-sized or large firm owners. The difference was even greater for small wealth holders.

[Figure 11 about here]

The results change if we account for the effect of financing payment of the wealth tax by extracting an extra dividend from the company. We assume here that wealthy individuals manage to avoid extra dividends or capital gains tax.<sup>22</sup> The additional dividend tax paid by firm owners when funding the wealth tax payments from extra dividends implies that they paid a significantly higher total wealth tax. The first small noticeable divergence in average total wealth tax – for owners of large firms compared to similar individuals – appeared in 1913 and 1918. This was due to the fact that the extra dividend tax that had to be paid by firm owners was subject to relatively high marginal income tax rates. This divergence grew gradually and peaked at 8.7 percentage points in 1973, and then dropped sharply to two percentage points in 1974 when relief in the valuation of net business equity was granted.

Figure 12 shows that an individual having non-corporate wealth of the same magnitude as the owner of the medium-sized firm faced the same direct wealth tax rate as did the firm owner in all years through 1970. From 1971 and onwards, moderately wealthy individuals

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<sup>22</sup> Until 1966 the long-term capital gains tax (holding period more than five years) was zero. From 1967 to 1975 about 25 percent of long-term capital gains can be estimated to have been taxable (Du Rietz, Johansson and Stenkula 2015b). Formally, ten percent of the proceeds of sales of long-term shares were included in personal income. From 1976 to 1990, 40 percent of long-term gains were taxable (holding period more than two years). Short-term capital gains were always fully taxable at the labor income tax schedule.

paid a higher wealth tax, while from 1974 they paid three times more direct wealth tax than firm owners of equal wealth. However, if one takes into account extra dividends from the firm being used to pay the owners' direct wealth tax, the total wealth tax was significantly higher for the entrepreneurs even after 1974.

[Figure 12 about here]

Figure 13 shows that an individual having wealth of the same level as the owner of the small firm faced the same direct wealth tax rate as did the firm owner in all years through 1973. From 1974, the direct wealth tax for the small firm owner fell to zero (but for a few years), while our corresponding individual continued to pay a wealth tax of nearly one percent until 1978 when the tax rate was reduced to 0.6 percent. In 1979–1980 the tax rate increased to 0.7 percent. Temporarily, in 1981–1982, the tax rate almost fell to 0.2 percent due to increased bracket boundaries. During the period 1990–2004 the tax rate varied between 0.4 and 0.5 percent, falling to between 0.2 and 0.3 percent in 2005–2006.

[Figure 13 about here]

## **5. Summary and conclusions**

We have provided an exploratory analysis of the system for taxation of wealth in Sweden. The analysis begins in 1911, when the income wealth tax was introduced, and ends in 2006, the last year wealth was taxed. The wealth tax was not particularly important as a source of revenue for the central government, at least not from 1948 and onwards. Beginning in the 1930s, taxes on wealth were largely motivated by redistributive concerns.

The direct tax rate for owners of large firms began at a low level of 0.06 percent on equity in 1911–1912. The average direct wealth tax was increased temporarily by the highly progressive defense tax in 1913, in some cases by as much as a factor of 14. A further sharp rise in the tax rate occurred in 1934 with the introduction of the separate wealth tax, which in many cases tripled the effective wealth tax rate for owners of large firms. The 1939–1947 wealth tax, combined income and wealth tax and defense tax resulted in a gradual increase of the direct wealth tax rate for owners of larger firms from 0.8 to one percent. The 1947 wealth tax gave rise to the next substantial wealth tax hike. Effective tax rates were almost doubled from 1948. The highest marginal tax rate was 1.8 percent. The wealth tax schedule introduced

in 1971 increased the top marginal tax rate to 2.5 percent.

In 1974, the wealth tax was more than halved for firm owners when tax authorities introduced a greater undervaluation of firms' stock-in-trade and inventories. The wealth tax on corporate equity dropped further in 1978 when only 30 percent of the net worth of firms was subject to wealth taxation. In 1983 it rose temporarily as a consequence of a temporary increase in tax rates in that year. It decreased in 1984, when the top marginal tax rate was reduced from four to three percent. The wealth tax on unlisted firm equity was repealed in 1991.

When considering wealth tax effects, the total effects are arguably more important than the direct wealth tax effects. The wealth tax had to be paid annually. Firm owners often had to finance wealth tax payments through additional dividend payouts that were taxed at high marginal income tax rates. The total effective wealth tax was in such cases much higher than the direct wealth tax. It peaked at extremely high levels in the 1970s and 1980s.

With the introduction of the valuation reliefs for unlisted net business equity in the 1970s, effective wealth taxation began to diverge between wealth holders of unlisted corporate wealth and holders of non-corporate wealth of the same size. As a result, wealthy individuals paid between two and almost three times more than the medium-sized or large firm owners. The difference was even greater for small wealth holders.

## Tables

Table 1. The combined state income and wealth tax, 1911–1919.

State taxable income, SEK	Tax SEK	Average tax rate, %	Marginal tax rate, %
0	0	0	0
800	3.2	0.4	3.2
900	5.4	0.6	2.2
1,100	8.8	0.8	1.7
1,400	14	1.0	2.13
1,700	20.4	1.2	2.53
2,000	28	1.4	2.40
2,500	40	1.6	2.80
3,000	54	1.8	3.0
3,600	72	2.0	3.0
4,500	99	2.2	2.4
6,000	132	2.2	3.0
8,000	195	2.4	3.50
12,000	335	2.8	4.0
20,000	655	3.3	4.5
30,000	1,105	3.7	5.0
50,000	2,105	4.2	5.5
80,000	3,755	4.7	6.0
104,500	5,225	5.0	5.0

*Note:* Between 1911 and 1919,  $1/60^{\text{th}}$  of the tax payer's wealth was added to state taxable income. For income above SEK 104,500, the marginal income tax rate is lower due to an average tax cap. The appropriation and defense taxes are not included in the figures. For income below SEK 6,000, only average tax rates are reported in SFS 1910:115. The marginal tax rates are calculated by the authors. As the average tax rates increase with income, the marginal tax rates are higher than the average tax rates up to the tax cap. At income levels where the average tax rates increased, marginal tax rates were very high (spikes), but between these bracket boundaries the marginal tax rate was equal to the average tax rate. Since most people are likely pay the average tax rate on income increases and just a few people at the bracket boundaries pay a much higher marginal tax rate, we prefer to use an average marginal tax rate on a significant income increase. This methodology evens out part of the large variation in the point marginal tax rates at different income levels. If one ignores the high marginal income tax spikes at bracket boundaries, the average marginal tax rates are underestimated. As a consequence, the average wealth tax rate would also be underestimated. For an alternative calculation, see Du Rietz, Johansson and Stenkula (2015a).

*Source:* Genberg (1942, 21–22), SFS 1910:115 and own calculations.

Table 2. The 1913 defense tax and the extra income and wealth taxes of 1918–1919.

1913			1918			1919		
Taxable income	Marginal tax rate, %	Tax SEK	Taxable income	Marginal tax rate, %	Tax SEK	Taxable income	Marginal tax rate, %	Tax SEK
0	0	0	0	0	0	0	0	0
5,000	2.5	0	6,000	1.5	0	10,000	2.5	0
8,000	3	75	8,000	2	30	12,000	3	50
12,000	3.5	195	10,000	2.5	70	15,000	3.5	140
14,000	4	265	12,000	3	120	20,000	4	315
17,000	4.5	385	15,000	3.5	210	30,000	4.5	715
20,000	5	520	20,000	4	385	50,000	5	1,615
25,000	6	770	30,000	4.5	785	80,000	6	3,115
30,000	7	1,070	50,000	5	1,685	100,000	7	4,315
40,000	8	1,770	80,000	6	3,185	125,000	8	6,065
50,000	9	2,570	150,000	7	7,385	150,000	9	8,065
70,000	10	4,370				200,000	10	12,565
100,000	11	7,370				300,000	11	22,565
150,000	12.5	12,870				400,000	12	33,565
225,000	13.5	22,245				500,000	13	45,565
537,000	12	64,365				600,000	14	58,565
						700,000	15	72,565
						800,000	16	87,565
						900,000	17	103,565
						988,700	12	118,644

*Note:* Ten percent of taxable wealth was added to the base for the income tax.

*Source:* SFS 1918:512; SFS 1918:513; SFS 1917:513; Genberg (1942, 21–22) and own calculations.

Table 3. The defense surtax, 1918.

Taxable income SEK	Tax, SEK	Marginal tax rate
0	0	0
100,000	0	1.0
125,000	250	2.0
200,000	1,750	3.0
300,000	4,750	4.0
400,000	8,750	5.0
500,000	13,750	6.0
600,000	19,750	7.0
700,000	26,750	8.0
800,000	34,750	9.0
900,000	43,750	10.0
925,000	53,000	5.0

*Note:* Taxable income refers to state taxable income and includes 1/60<sup>th</sup> of tax payer's wealth. In the highest tax bracket, the marginal income tax rate is lower due to the average tax cap.

*Source:* SFS 1918:512; Du Rietz, Johansson and Stenkula (2015a).



Table 4. The combined income and wealth tax, 1920–1938.

Taxable income SEK	Base amount SEK	Marginal tax rate	Withdrawal percentage of tax	
0	0	3	1920	155
10,000	300	4	1921–24	175
20,000	700	5	1925	170
40,000	1,700	6	1926–27	160
60,000	2,900	7	1928	150
100,000	5,700	8	1929–32	145
150,000	9,700	9	1933	165
200,000	14,200	10	1934–37	170
300,000	24,200	11	1938	180
400,000	35,200	12		
600,000	59,200	13		
800,000	85,200	14		
1,000,000	113,200	15		
1,226,670	147,200	12		

*Note:* Between 1920 and 1938, 1/60<sup>th</sup> of the taxpayer's wealth was also added to the state taxable income. Between 1939 and 1947, one percent of the taxpayer's wealth was added to the state taxable income. The progressive local tax 1920–1938 is not included in the numbers above. A state equalization tax and an extra state income tax were levied in the periods 1928–1938 and 1932–1938, respectively. These taxes are not included in the numbers above. In the highest tax bracket from 1920 through 1938, the marginal income tax rate is lower due to an average tax cap. To calculate the exact amount of tax paid or the state marginal income tax rate for a specific year from 1920 to 1938, one multiplies the base amount or the marginal tax rate by the withdrawal percentage for the specific year. *Source:* Genberg (1942, 22–24); Söderberg (1996, 75–76).

Table 5. The local progressive income tax (*den kommunala progressivskatten*), 1920–1927.

State taxable income	Tax SEK	Marginal tax rate	Withdrawal percentage of tax	
3,000	0	0.5	1920–1921	92.5
6,000	15	1.0	1922–1926	93.75
10,000	55	2.0	1927	96.25
25,000	355	3.0		
40,000	805	4.0		
60,000	1,605	5.0		
100,000	3,605	6.0		
150,000	6,605	7.0		
200,000	10,105	8.0		
294,750	17,685	6.0		

*Source:* Genberg (1942, 23); Söderberg (1996, 75–76).

Table 6. The local progressive income tax (*den kommunala progressivskatten*), 1928–1938

State taxable income, SEK	Tax SEK	Marginal tax rate
3,000	0	0.5
9,000	30	1.0
15,000	90	2.0
35,000	490	3.0
60,000	1,240	4.0
100,000	2,840	5.0

Source: Genberg (1942, 23).

Table 7. The state equalization tax (*statliga utjämningskatten*), 1928–1933.

State taxable income, SEK	Tax SEK	Marginal tax rate	Withdrawal percentage of tax
3,000	0	0.167	1928 85
9,000	10	0.333	1929 85
15,000	30	0.667	1930 80
35,000	163	1.0	1931 100
60,000	413	1.333	1932 100
100,000	947	1.67	
432,000	6,481	1.5	

Source: Genberg (1942, 23).

Table 8. The state equalization tax (*statliga utjämningskatten*), 1934–1938.

State taxable income, SEK	Tax SEK	Marginal tax rate
3,000	0	0.33
9,000	20	0.67
15,000	60	1.33
35,000	327	2.0
60,000	827	2.67
100,000	1,893	3.33
432,000	12,960	3.0

Source: Genberg (1942, 23).

Table 9. State extra income and wealth tax, 1932–1935.

State taxable income, SEK	Tax SEK	Marginal tax rate
6,000	0	0.5
8,000	10	1.0
12,000	50	1.5
20,000	170	2.0
30,000	370	2.5
40,000	620	3.0
60,000	1,220	3.5
100,000	2,620	4.0

*Source:* Söderberg (1996, 106).

Table 10. State extra income and wealth tax, 1936–1938.

State taxable income, SEK	Tax SEK	Marginal tax rate
6,000	0	1.0
8,000	20	2.0
10,000	60	3.0
12,000	120	4.0
20,000	440	5.0
30,000	940	6.0
50,000	2,140	7.0
100,000	5,640	8.0

*Note:* Includes 1/60<sup>th</sup> of taxpayer's wealth.

*Source:* SFS 1935:300.

Table 11. The 1938 income and wealth tax, 1939–1947.

<b>Bottom tax</b>					
Taxable income SEK	Tax at bracket boundary, SEK	Marginal tax in bracket, %	Withdrawal percentage of tax		
0	0	4.5	Income year		
3,000	135	5.5	1939	120	
6,000	300	6.5	1940–1947	150	

<b>Surtax</b>		
Taxable income	Surtax at boundary, SEK	Marginal tax in bracket, %
8,000	0	2
10,000	40	4
15,000	240	8
25,000	1,040	12
40,000	2,840	16
60,000	6,040	20
100,000	14,040	24
200,000	38,040	28

*Note:* To calculate the exact state marginal income tax rate for a specific year from 1939 to 1947, one must multiply the bottom tax with the withdrawal percentage for the specific year and then add the surtax.

*Source:* SFS 1938:369; Genberg (1942, 23–24).

Table 12. The 1939 defense tax.

<b>Bottom tax</b>				
Taxable income SEK	Tax at bracket boundary, SEK	Marginal tax in bracket, %	Withdrawal per- centage of tax	
0	0	2.25	120	
3,000	67.5	2.75		
6,000	150	3.25		

<b>Surtax</b>		
Taxable income	Surtax at boundary, SEK	Marginal tax in bracket, %
8,000	0	1
10,000	20	2
15,000	120	4
25,000	520	6
40,000	1420	8
60,000	3,020	10
100,000	7,020	12
200,000	19,020	14

*Source:* Genberg (1942, 24) and own calculations.

Table 13. The 1940 defense tax.

State taxable income, SEK	Tax SEK	Marginal tax rate
3,000	150	5.5
6,000	315	6.5
9,000	510	8.0
12,000	750	10.0
15,000	1,050	12.0
25,000	2,250	14.0
35,000	3,650	16.0
50,000	6,050	18.0
100,000	15,050	20.5
200,000	35,550	23.0

*Source:* Genberg (1942, 24).

Table 14. The defense tax, 1941–1947.

State taxable income, SEK	Tax SEK	Marginal tax rate
3,000	180	7.0
6,000	390	8.0
9,000	630	10.0
12,000	930	12.5
15,000	1,300	15.0
25,000	2,805	18.0
35,000	4,605	21.0
50,000	7,755	24.0
100,000	19,755	27.5
200,000	47,255	31.0

*Source:* Genberg (1942, 25).

Table 15. The 1934 separate tax on wealth, 1934–1938.

Taxable wealth, SEK	Tax, SEK	Marginal tax rate
50,000	0	0.1
150,000	100	0.2
300,000	400	0.3
500,000	1,000	0.4
1,000,000	3,000	0.5

*Source:* Genberg (1942, 23).

Table 16. The 1938 separate tax on wealth, 1939–1947.

Taxable wealth, SEK	Tax, SEK	Marginal tax rate
20,000	0	0.1
40,000	20	0.2
80,000	100	0.3
150,000	310	0.4
300,000	910	0.5
1,000,000	4,410	0.6

*Source:* Genberg (1942, 24); SOU 1969:54, 80.

Table 17. The 1947 wealth tax, 1948–1952.

Taxable wealth, SEK	Tax SEK	Marginal tax rate
30,000	0	0.6
100,000	420	1.0
150,000	920	1.2
200,000	1,520	1.5
300,000	3,020	1.8

*Source:* SOU 1951:51, 225.

Table 18. The 1953 wealth tax, 1953–1956.

Taxable wealth SEK	Tax SEK	Marginal tax rate
50,000	0	0.5
100,000	250	0.8
150,000	650	1.0
200,000	1,150	1.3
400,000	3,750	1.6
1,000,000	13,350	1.8

*Source:* SOU 1957:48, 174 and 176.

Table 19. Wealth tax, 1957–1964.

Taxable wealth SEK	Tax SEK	Marginal tax rate
80,000	0	0.5
100,000	100	0.8
150,000	500	1.0
200,000	1,000	1.3
400,000	3,600	1.6
1,000,000	13,200	1.8

*Source:* SOU 1957:48, 174.

Table 20. Wealth tax, 1965–1969.

Taxable wealth SEK	Tax SEK	Marginal tax rate
100,000	0	0.8
150,000	400	1.0
200,000	900	1.3
400,000	3,500	1.6
1,000,000	13,100	1.8

*Source:* SOU 1969:54, 43; Bratt and Fernström (1971, 239).

Table 21. Wealth tax, 1970.

Taxable wealth SEK	Tax SEK	Marginal tax rate
150,000	0	1.0
250,000	900	1.3
400,000	3,500	1.6
1,000,000	13,100	1.8

*Source:* Bratt and Fernström (1971, 239).

Table 22. Wealth tax, 1971–1973.

Taxable wealth SEK	Tax SEK	Marginal tax rate
150,000	0	1.0
250,000	1,000	1.5
400,000	3,250	2.0
1,000,000	15,250	2.5

*Source:* SOU 1971:46, 19; Bratt and Fernström (1975, 246).

Table 23. Wealth tax, 1974–1980.

Taxable wealth SEK	Tax SEK	Marginal tax rate
200,000	0	1.0
275,000	750	1.5
400,000	2,625	2.0
1,000,000	14,625	2.5

*Source:* Bratt, Fernström and Tolstoy (1982, 286).

Table 24 Wealth tax, 1981–1982.

Taxable wealth SEK	Tax SEK	Marginal tax rate
400,000	0	1.0
600,000	2,000	1.5
800,000	5,000	2.0
1,800,000	25,000	2.5

*Source:* Bratt, Fernström and Tolstoy (1982, 286).

Table 25. Wealth tax, 1983.

Taxable wealth SEK	Tax SEK	Marginal tax rate
300,000	0	1.0
400,000	1,000	2.5
600,000	6,000	3.0
800,000	12,000	3.5
1,800,000	47,000	4.0

*Source:* Bratt, Fernström and Tolstoy (1984, 362).

Table 26. Wealth tax, 1984–1989.

Taxable wealth SEK	Tax SEK	Marginal tax rate
400,000	0	1.5
600,000	3,000	2.0
800,000	7,000	2.5
1,800,000	32,000	3.0

*Source:* Bratt, Fernström and Tolstoy (1984, 362); Nordling (1989, 93).

Table 27. Wealth tax, 1990.

Taxable wealth SEK	Tax SEK	Marginal tax rate
800,000	0	1.5
1,800,000	12,000	2.5
3,600,000	62,000	3.0

*Source:* Skattebetalarnas förening (1990).

Table 28. Wealth tax, 1991.

Taxable wealth SEK	Tax SEK	Marginal tax rate
800,000	0	1.5
1,600,000	12,000	2.5

*Source:* Skatteverket (2005, 113).



Table 29. Wealth tax, 1992–1995.

Taxable wealth SEK	Tax SEK	Marginal tax rate
800,000	0	1.5

*Source:* Skatteverket (2005, 113).

Table 30. Wealth tax, 1996–2000.

Taxable wealth SEK	Tax SEK	Marginal tax rate
900,000	0	1.5

*Source:* Skatteverket (2005, 113).

Table 31. Wealth tax, 2001.

Taxable wealth Singles, SEK	Taxable wealth Couples, SEK	Marginal tax rate
1,000,000	1,500,000	1.5

*Source:* Skatteverket (2005, 113).

Table 32. Wealth tax, 2002–2004.

Taxable wealth Singles, SEK	Taxable wealth Couples, SEK	Marginal tax rate
1,000,000	2,000,000	1.5

*Source:* Skatteverket (2005, 113).

Table 33. Wealth tax, 2005–2006.

Taxable wealth Singles, SEK	Taxable wealth Couples, SEK	Marginal tax rate
1,500,000	3,000,000	1.5

*Source:* Skatteverket (2005, 113).

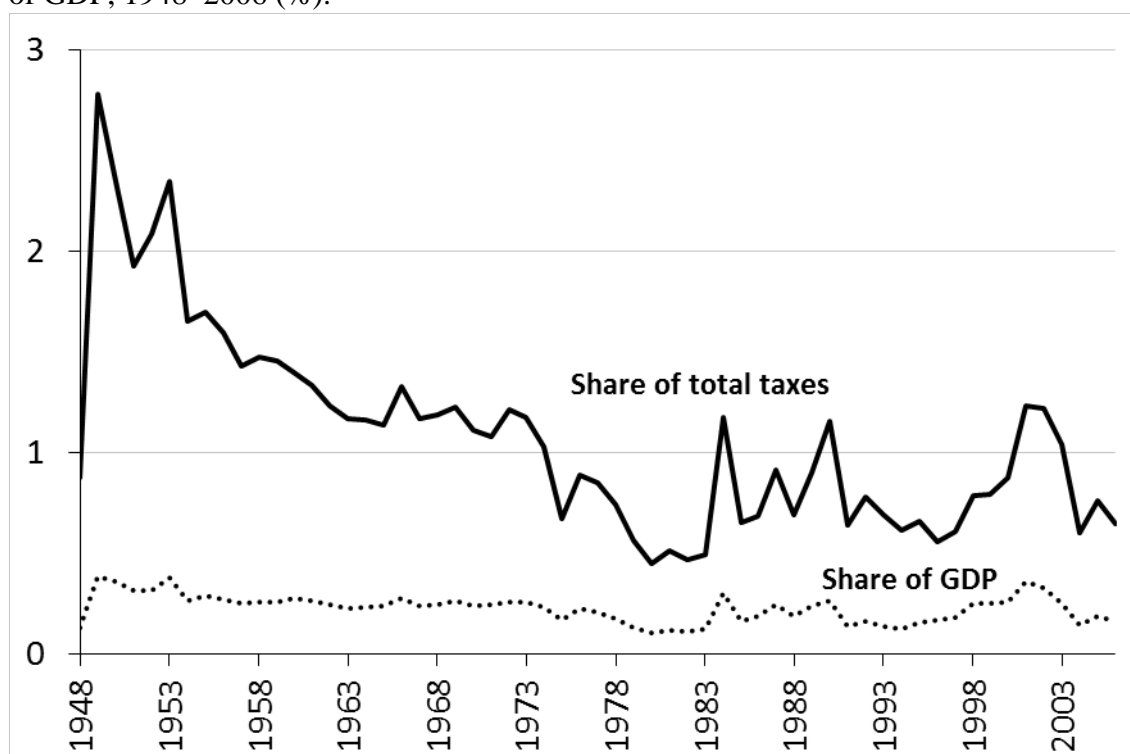
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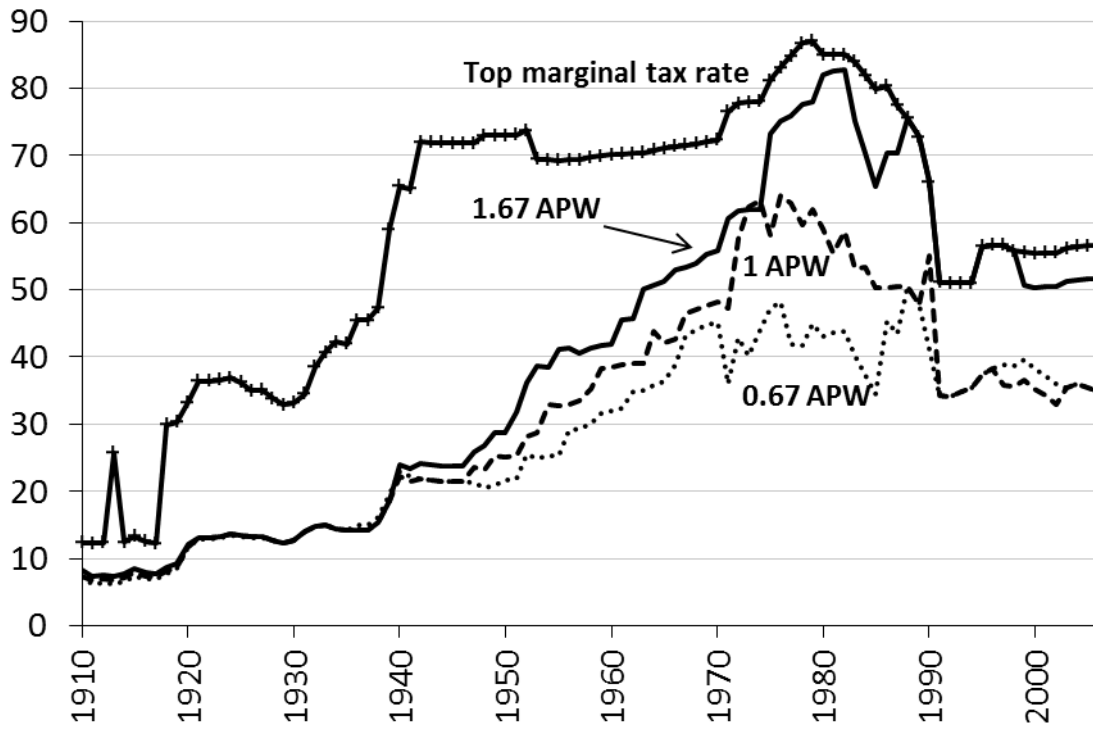
## All Figures in Chapter 6

Figure 1. Wealth tax revenue as a share of total central government tax revenue and as a share of GDP, 1948–2006 (%).



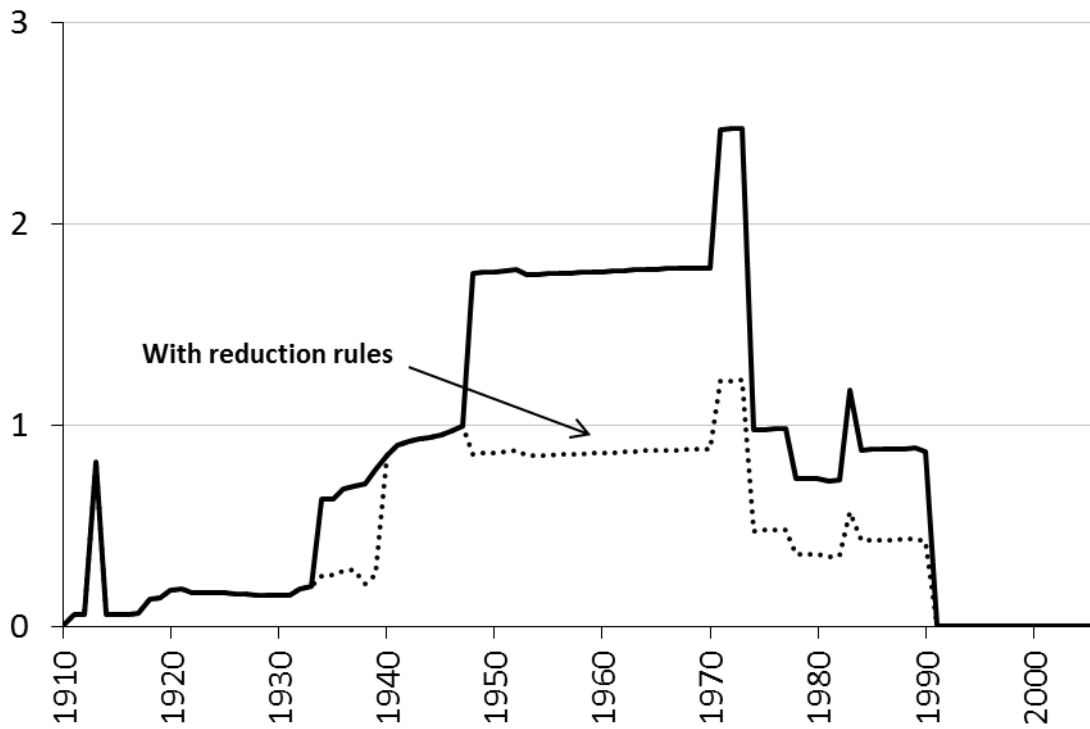
Source: Data on GDP are from Edvinsson et al. (2014) and data on wealth tax revenue and total central government tax revenue are from Rodriguez (1980) and Statistics Sweden (1949–2008).

Figure 2. Marginal tax rates at different levels of income, 1910–2006 (%).



Source: Du Rietz, Johansson and Stenkula (2015a).

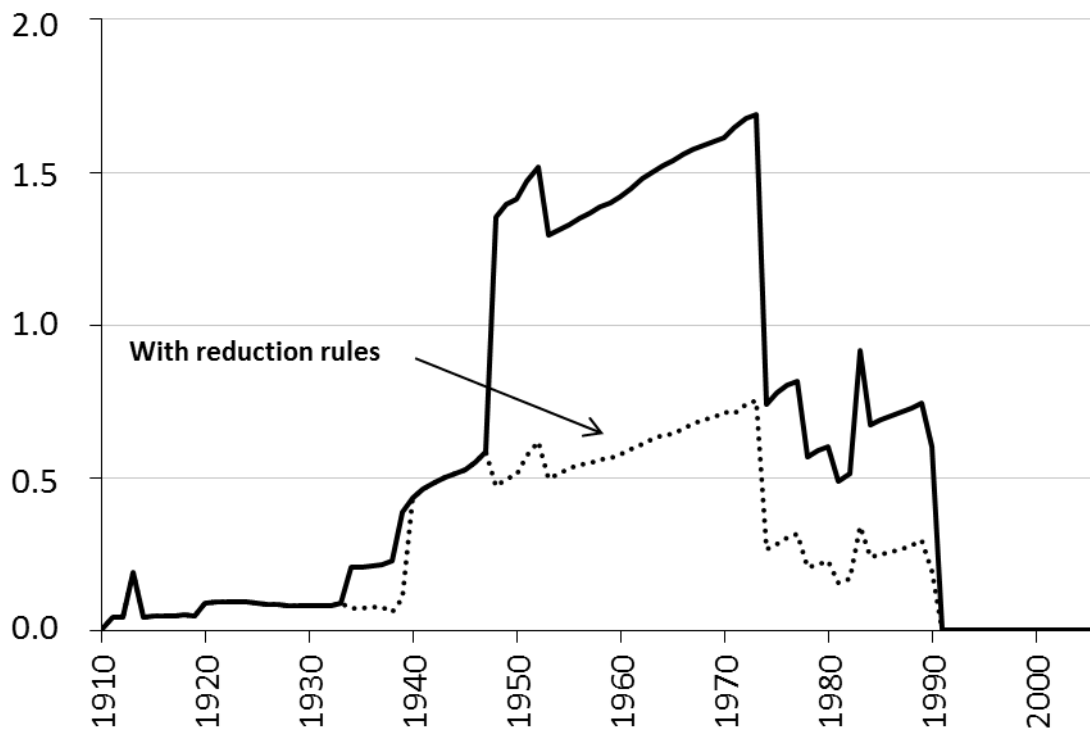
Figure 3. Wealth tax rate for an owner of a large firm, 1911–2006 (% of firm equity).



*Note:* The net worth of the large firm is 1,000 APWs (corresponding to SEK 261 million in 2006).

*Source:* Calculations made by the authors.

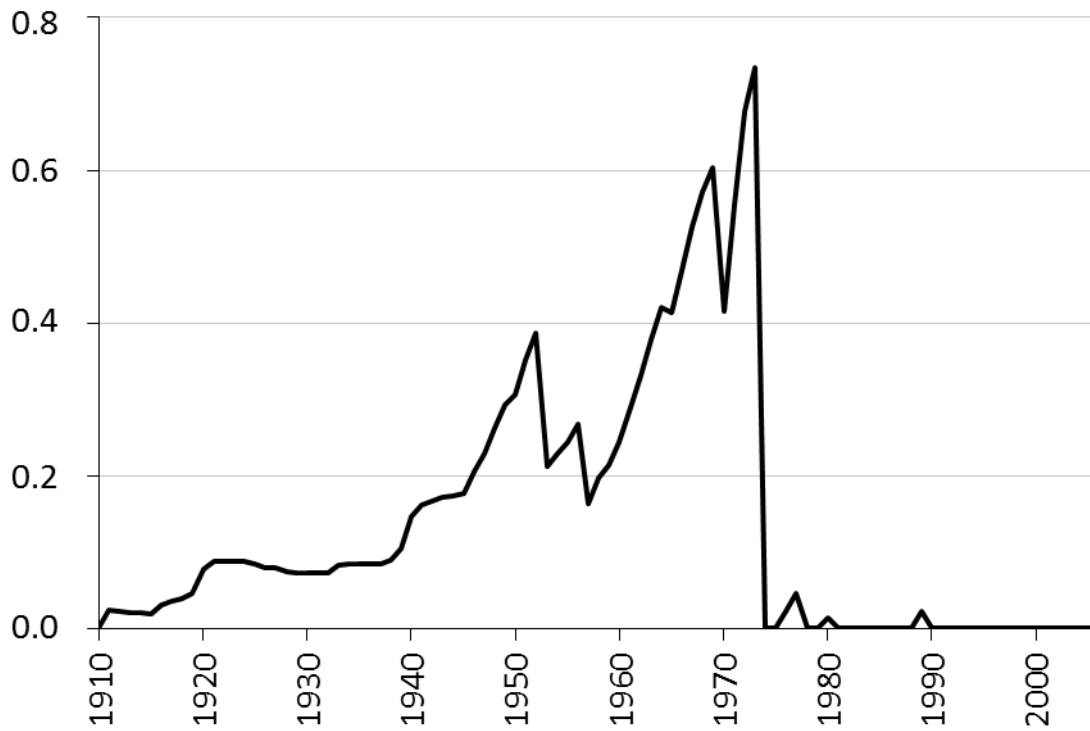
Figure 4. Wealth tax rate for an owner of a medium-sized firm, 1911–2006 (% of firm equity).



*Note:* The net worth of the medium-sized firm is 100 APWs (corresponding to SEK 26.1 million in 2006).

*Source:* Calculations made by the authors.

Figure 5. Wealth tax rate for an owner of a small firm, 1911–2006 (% of firm equity).

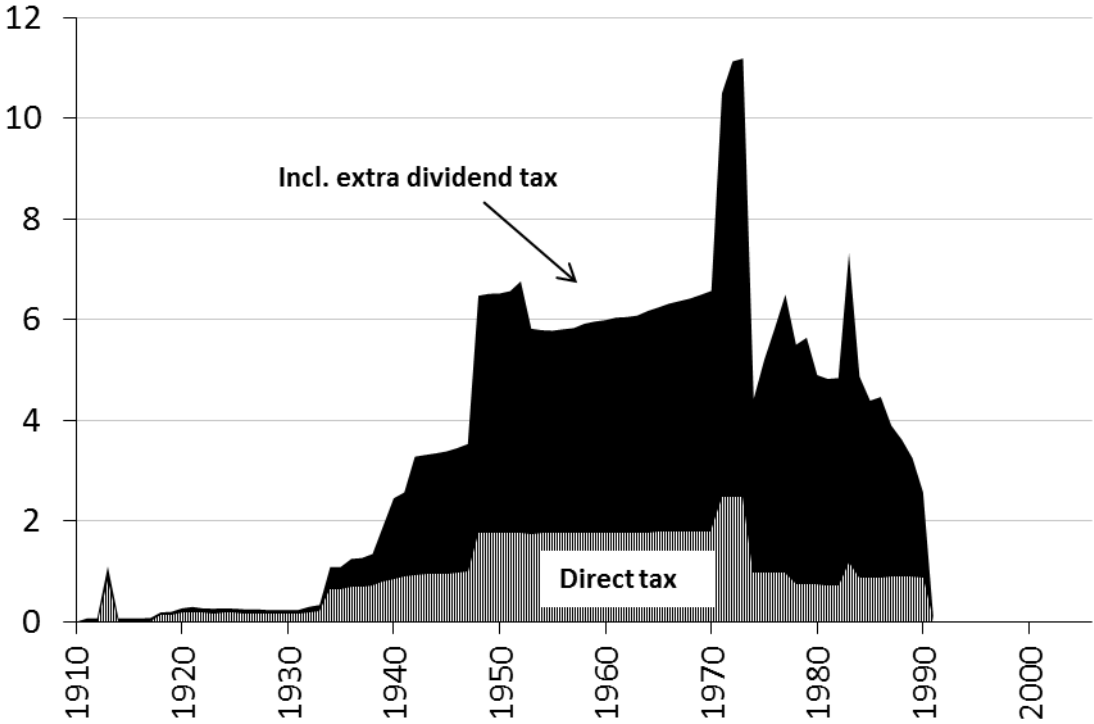


*Note:* The net worth of the small firm is ten APWs (corresponding to SEK 2.61 million in 2006). Reduction rules assumed not to be applicable.

*Source:* Calculations made by the authors.



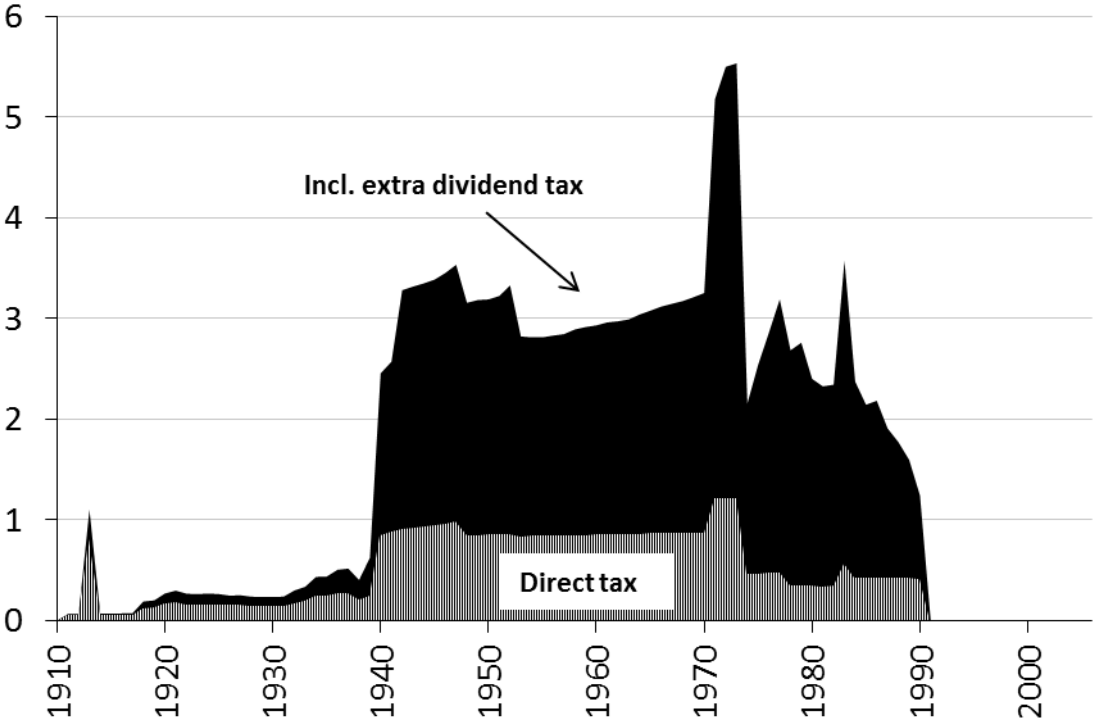
Figure 6. Direct and total wealth tax for an owner of a large firm, 1911–2006 (% of firm equity) when no reduction rules apply.



*Note:* The net worth of the large firm is 1,000 APWs (corresponding to SEK 261 million in 2006). The extra dividend tax was calculated assuming that the firm owner is paying the highest marginal income tax rate.

*Source:* Calculations made by the authors.

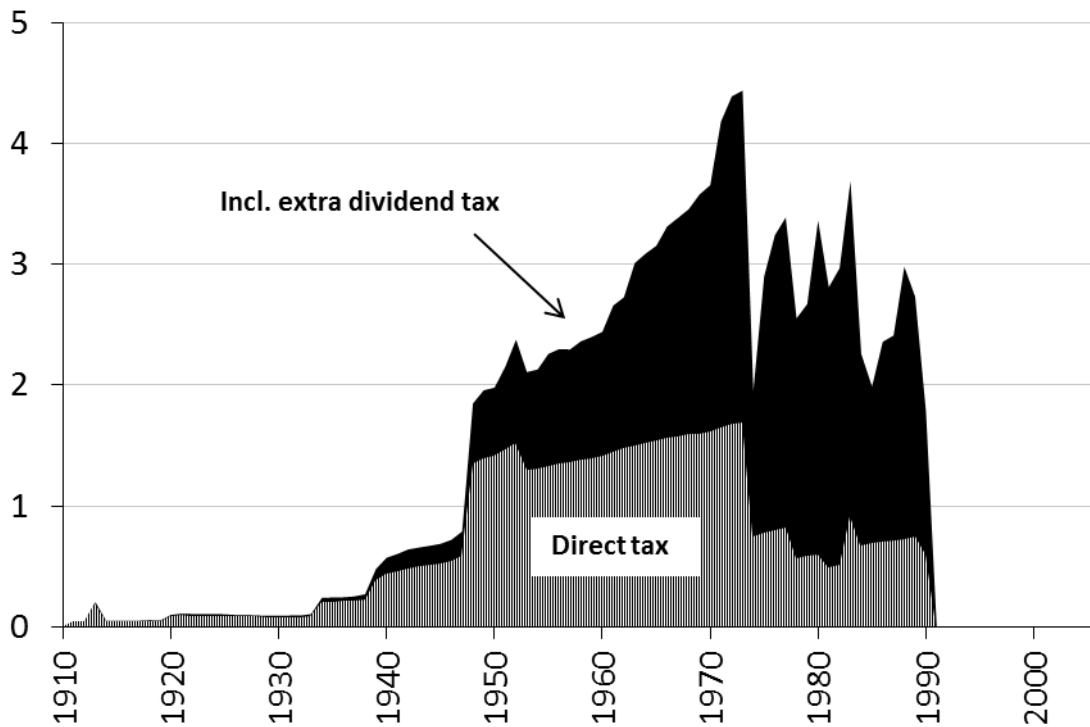
Figure 7. Direct and total wealth tax for an owner of a large firm, 1911–2006 (% of firm equity) when reduction rules apply.



*Note:* The net worth of the large firm was SEK 261 million in 2006 (1,000 APWs). The extra dividend tax was calculated assuming that the firm owner is paying the highest marginal income tax rate.

*Source:* Calculations made by the authors.

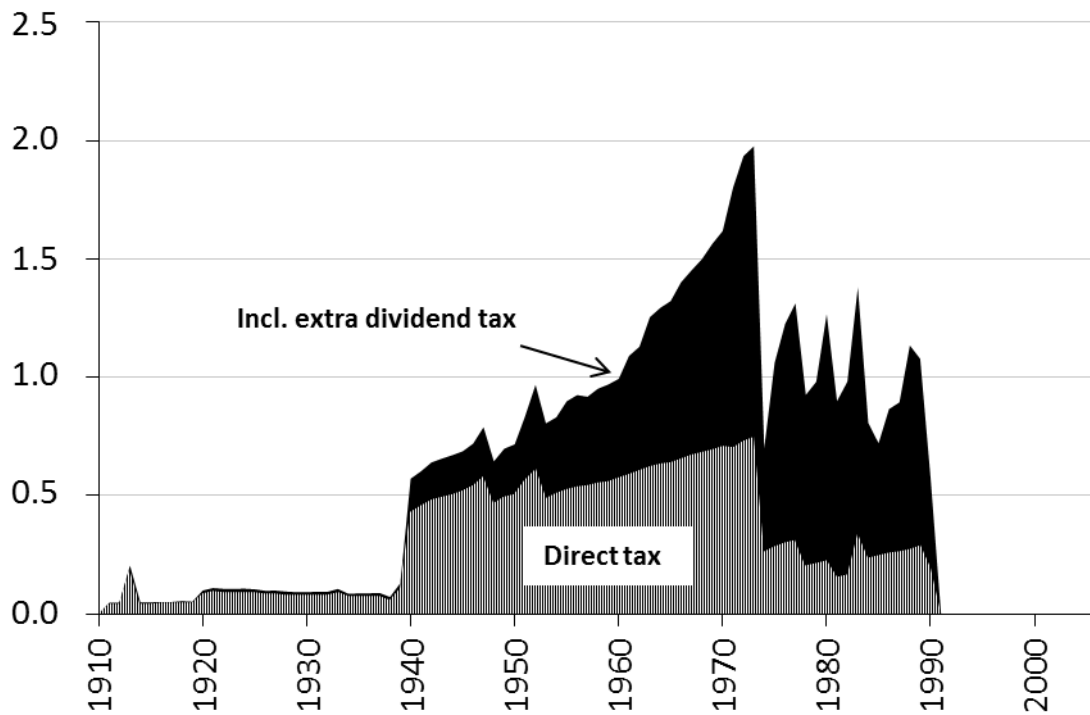
Figure 8. Direct and total wealth tax for an owner of a medium-sized firm, 1911–2006 (% of firm equity) when no reduction rules apply.



*Note:* The net worth of the medium-sized firm is 100 APWs (corresponding to SEK 26.1 million in 2006). The extra dividend tax was calculated assuming a marginal income tax corresponding to 1.67 APW.

*Source:* Calculations made by the authors.

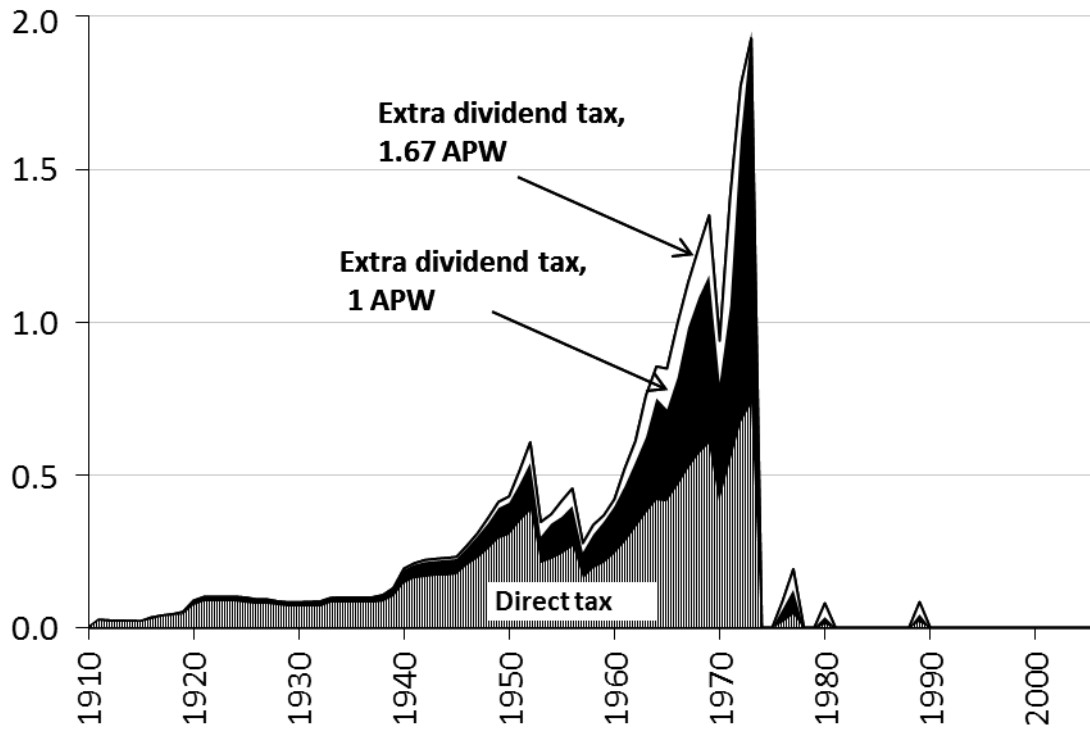
Figure 9. Direct and total wealth tax for an owner of a medium-sized firm, 1911–2006 (% of firm equity) when reduction rules apply.



*Note:* The net worth of the medium-sized firm is 100 APWs (corresponding to SEK 26.1 million in 2006). The extra dividend tax was calculated assuming a marginal income tax corresponding to 1.67 APW.

*Source:* Calculations made by the authors.

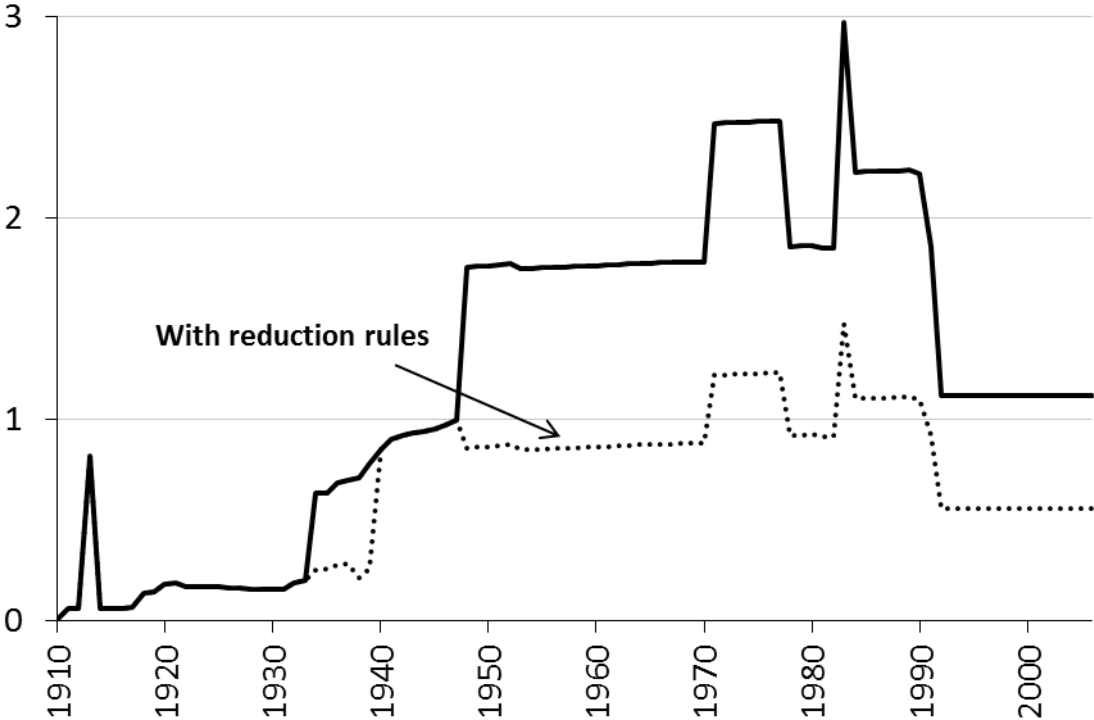
Figure 10. Direct and total wealth tax for an owner of a small firm, 1911–2006 (% of firm equity).



*Note:* The net worth of the small firm is ten APWs (corresponding to SEK 2.61 million in 2006). Reduction rules assumed not to be applicable.

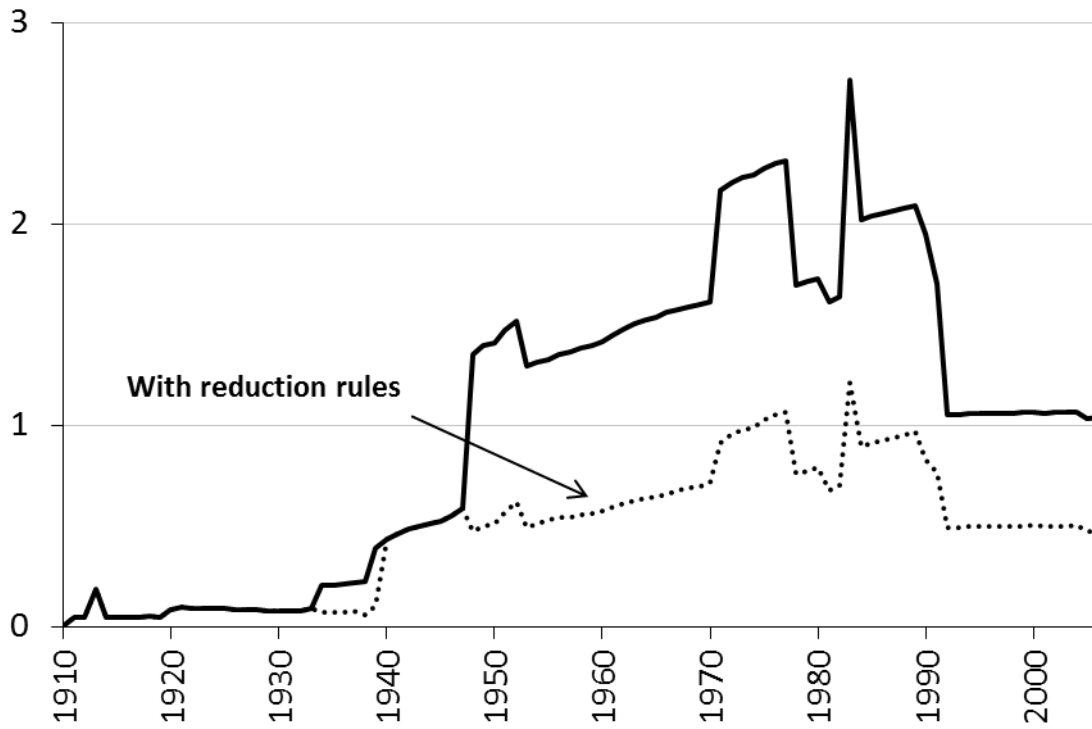
*Source:* Calculations made by the authors.

Figure 11. Wealth tax rate for an individual having wealth equal to the large-firm owner, 1911–2006 (%).



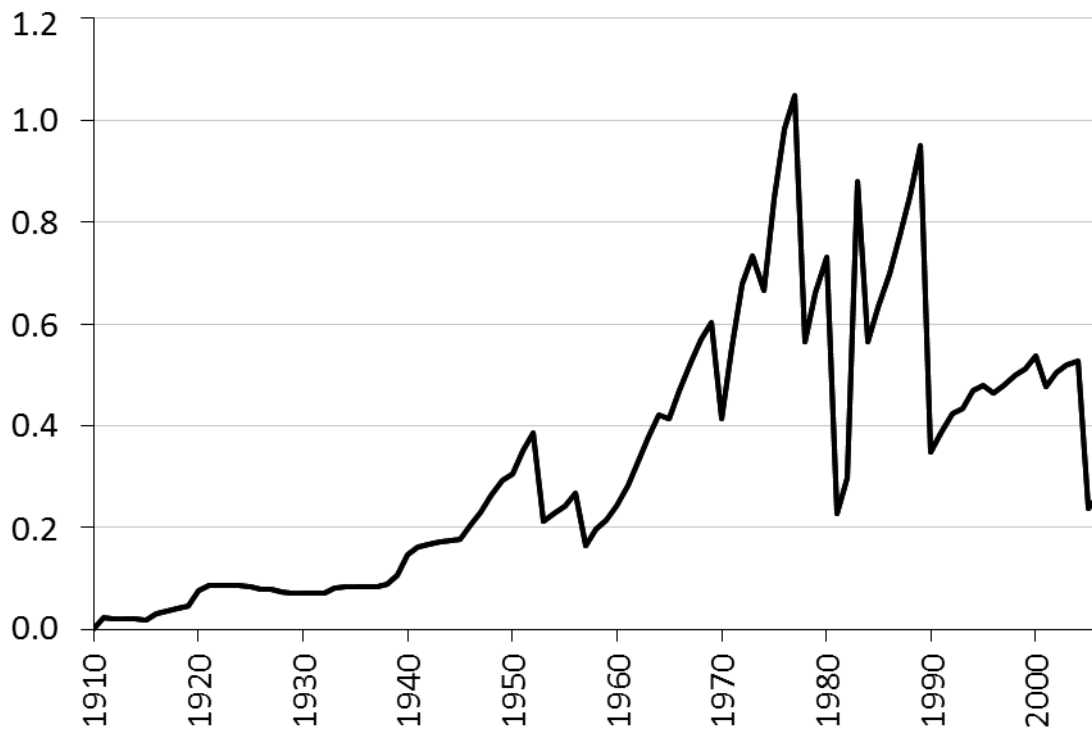
*Note:* The person's wealth is 1,000 APWs (SEK 261 million in 2006).  
*Source:* Calculations made by the authors.

Figure 12. Wealth tax rate for an individual having wealth equal to the medium-sized firm owner, 1911–2006 (%).



*Note:* The person's wealth is 100 APWs (SEK 26.1 million in 2006).  
*Source:* Calculations made by the authors.

Figure 13. Effective wealth tax rate for an individual having wealth equal to the small-firm owner, 1911–2006 (%).



*Note:* The person's wealth is ten APWs (SEK 2.61 million in 2006).  
*Source:* Calculations made by the authors.