Article

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The Taxation of Industrial Foundations in Sweden (1862–2018)**

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Abstract: It has been argued that the Swedish tax system has favored firm control through industrial foundations, which should have inhibited entrepreneurship and economic growth. However, research has been hampered because of a lack of systematic historical tax data. The purpose of this study is to describe the evolution of tax rules for industrial foundations in Sweden between 1862 and 2018 and to calculate the marginal effective tax rate (METR) on capital income. The results show that the METR for an equity-financed investment is typically below 20% and occasionally peaks at approximately 40%. When the requirement that industrial foundations have to donate the bulk of capital income (less capital gains) for charitable purposes is treated as a tax, the METR is seldom below 50% when financing investments with new share issues and often exceeds 100%.

Keywords: business groups; entrepreneurs; family firms; foundations; taxation

JEL codes: K34; N23; N24

1 Introduction

Industrial foundations have been an important means for a few influential family business groups to exercise far-reaching control over Swedish industry, possibly because they have been tax exempt. This has provided them an advantage over firms controlled through personal ownership. It has been argued that this has hampered entrepreneurship and, consequently, economic growth [16–18, 20]. However, there are no time series on the taxation of industrial foundations, and it has, therefore, been impossible to estimate the extent to which they have been favored. Hence, there is a need to produce long, homogeneous time series on their taxation to further our understanding of the governance and development of Swedish industry.

An industrial foundation is a legal entity that is typically founded by an entrepreneur who wishes to avoid dividing his or her assets among several heirs, losing capital to the inheritance tax, or, in other ways, weakening the ownership or voting structure. Normally, the charter of the foundation dictates a philanthropic purpose–alongside the goal of developing the business–because a philanthropic goal is a necessary condition for achieving favored tax status. The board that governs the foundation is obligated to fulfill the goals expressed in the charter. The donation of the firm's shares to the foundation is irrevocable [32, p. 7; 59, pp. 119–121].

As will be described later in greater detail, Swedish foundations with charitable purposes (Swedish: *allmännyttiga stiftelser*) are exempt from taxes on capital income, wealth, inheritance, and gifts. Nevertheless, their real after-tax return on investments in firms depends on corporate income taxation, inflation (because Sweden applies a nominal tax system), and source of finance (because different sources of finance are treated differently by tax law). They may also pay other taxes, for example, property taxes or taxes on business activity.

The purpose of this study is, first, to describe the evolution of tax rules for industrial foundations. Second, we calculate the marginal effective tax rate (METR) on capital income for industrial foundations. The analysis covers the years from 1862 to 2018.

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The METR is an established tax measure used to compare tax rates across countries and types of investment projects [31]. It analyzes the effect of capital taxation on a marginal investment while accounting for the total effects of corporate income taxation, capital income taxation, and wealth taxation and the interactions of these taxes with inflation.

The analysis complements earlier studies on the taxation of industrial foundations, which only cover occasional years from the 1960s onward [e.g., 18, 48, 49].[1] Furthermore, they do not consider that industrial foundations have to donate the bulk of their capital income (less capital gains) for charitable purposes, which has a considerable negative effect on the use of industrial foundations as a control vehicle. In fact, this donation requirement parallels the cash flow effect caused by the personal capital income tax on dividends. Our study is part of a comprehensive project to characterize the Swedish tax system from 1862, when Sweden introduced a new tax system, until the present.[2]

Notably, the founding wealth of the industrial foundations emanates from individuals acting as entrepreneurs during the period when Sweden was industrialized in the second half of the 19th century. These entrepreneurs established diversified business groups comprising firms active across industries. The growth of the business groups resulted from solving coordination problems of financing complementary investments in different sectors, leading to large-scale synergies.[3]

The Swedish experience stands in contrast to the traditional so-called "big-push" policy, which stresses the importance of a centralized and government-coordinated expansion of interdependent industries to overcome externalities and hold-up problems [44]. The historical experience has, however, shown that such initiatives often fail because of government failure and rent-seeking activities by lobbying elite tycoons. A notable example is Japan, where the government first pursued a centralized big push policy to encourage swift industrialization that failed. Mass privatization followed and diversified business groups spanning across industries and governed by entrepreneurs became instrumental for Japan's growth [38].

We find that the METR for an equity (new share issues and retained earnings) financed investment is generally below 20% and occasionally peaks at approximately 40%. If the donation requirement is treated as a tax, the METR is seldom below 50% when financing investments with new share issues and often exceeds 100%.

The remainder of the article is organized as follows. Section 2 discusses the use of industrial foundations as a means for the family control of firms. Section 3 describes the taxation of industrial foundations between 1862 and 2018. Section 4 introduces the King-Fullerton framework and calculates the METR for industrial foundations. Section 5 concludes the article.

2 Industrial foundations and family control

Foundations in Sweden date back to the country's Christianization when people made donations to the church, for instance, for poor relief. Since the 18th century, foundations have been used to support education and care for the poor. Higher education and scientific research became more important for foundations in the late 19th century [52]. However, foundations were not separately regulated by law until 1929 through the so-called Supervision Act (*Tillsynslagen*). In 1996, foundations received an unambiguous legal definition in the Foundation Act (*Stiftelselagen*, 45) [14]. The tax legislation is separate and described in Section 3.

Foundations are heterogeneous, but they share some common traits. First, a foundation is established when assets are permanently separated and dedicated to the promotion of a particular purpose [56]. Second, foundations are self-owned (i.e., lack owners) and governed by their statutes [14].

Foundations can be sorted into different categories depending on what features are of interest. One distinction is between *dependent* and *independent*, that is, whether a foundation is controlled within a structure, such as a nonprofit organization or a company, or whether its board is independent and controls itself [45].

Foundations can also be divided into *return foundations* (*avkastningsstiftelser*) and *business foundations* (*näringsdrivande stiftelser*), where the former fulfills their purpose by funding various activities, primarily using the return on their capital, and the latter by conducting business. Foundations that conduct business are rare because

1 These studies denoted foundations with charitable purposes as "tax-exempt foundations."

2 Seven key aspects have been treated in previous studies: the taxation of capital income of households, consumption, gifts and inheritance, labor income, real estate, wealth, and taxation of the owners of closely held firms [see, 21, 29, 54, 64].

3 The government paved the way by implementing a number of institutional reforms that liberalized the economy and improved the business climate.

a foundation does not offer the same flexibility as a limited company [14].

Foundations also differ by purpose, and they are normally divided into the following categories [46]:

1. ordinary foundations (*vanliga stiftelser*);
2. collection foundations (*insamlingsstiftelser*);
3. collective agreement foundations (*kollektivavtalsstiftelser*);
4. pension and employee foundations (*pensions- och personalstiftelser*).

Ordinary foundations are a broad category and include foundations with a wide variety of purposes, for example, local charity work and scholarships, family foundations[4] and the Nobel Foundation. A condition for being classified as an ordinary foundation is that the founder(s) of the foundation transfer(s) assets to the foundation for a particular purpose. These assets are generally not allowed to be distributed; only the return on the assets can be distributed. However, if the foundation's statues declare that it is allowed to use its capital, it can do so as long as it can fulfill its purpose over time (*varaktighetskravet*) [26].

Collection foundations are similar to ordinary foundations. The difference is that the founder(s) do(es) not transfer any wealth when founding the foundation, instead a collection foundation raises money to meet its objectives. The funds are normally meant to be spent for the predetermined purpose, even though some funds may be saved, and there are hybrids between collection foundations and those that only use their return to finance their purpose.[5] This distinction is not relevant from a tax perspective [14].

Collective agreement foundations are a part of the Swedish labor market model, and their purpose is to support the security and transformation of the labor market. This can be performed in a number of ways, such as education, financial support for accepting lower paid jobs, and early retirement. These foundations are funded by employers as part of a collective agreement and are jointly controlled by the trade unions and employer organizations.

Pension and employee foundations are used to guarantee employers' pension obligations and personnel benefits to employees.

For the purpose of this article, the most relevant property of foundations is their tax condition. In general, ordinary foundations pay tax on all income; that is, they are fully taxable [46]. A collection foundation has the same tax conditions as an ordinary foundation. Collective agreement foundations belong to a small number of foundations that are exempted from tax on all incomes. They only have to pay property taxes (*fastighetsskatt*) and taxes on any income from real estate (*fastighetsinkomst*).

Pension foundations are taxed for property income and real estate, and their return is taxed at a rate of 15% on net assets multiplied by the government borrowing rate (*statslåneräntan*) [14, p. 76]. Employee foundations normally have full tax liability (*oinskränkt skattskyldighet*).

However, foundations that promote charitable purposes are exempted from taxes on capital income, wealth, inheritance, and gifts.[6] To be exempted from the tax on capital income, certain rules have to be met (as explained in greater detail in Section 3).[7] This possibility provides an opportunity for entrepreneurs to keep firms under family control for generations despite taxation.[8] By establishing an industrial foundation with the purpose of promoting charitable aims, the foundation will have limited tax liability, and its assets are not allowed to be distributed.[9]

In addition to tax incentives and the willingness to promote charitable purposes, another motive for establishing industrial foundations can be to avoid inheritance division. By bequeathing to a foundation, the founder avoids dividing the assets among several heirs, making it easier

4 Family foundations hold funded assets with the purpose of promoting a particular family's prosperity.

5 A collection foundation has to use at least 75% of its income during a period of 3 years.

6 There is also a category of foundations that do not have to be charitable to achieve the same tax advantages described below. Such foundations have been listed separately in the law since 1855. The first such foundation is Jernkontoret, supporting the iron industry [53]. Although the catalog has grown over time, it does not include foundations able to function as a substitute for private ownership; instead, it consists of foundations such as the Nobel Foundation and foundations in memory of persons.

7 Family foundations are taxed as a natural person [56] because their purpose is to favor a particular family, and they cannot be philanthropic by definition.

8 Because the wealth is meant to be distributed, collection foundations are not used as an instrument to exercise control over firms.

9 Ordinary foundations with the purpose of promoting charitable purposes share commonalities with private foundations in the United States; they are independent legal entities established solely for charitable purposes; the funding typically comes from a single individual or a family; the founder determines the foundation's mission, whom to include on the board, investment strategy, and how and to what funds are given away; the foundations are governed by their own board of directors, which consists of the founder(s), family, and/or other individuals chosen by the founder(s); they must make charitable distributions and are classified as tax exempt, but they still may have to pay some taxes. One important difference compared to Sweden is that the donor is allowed to deduct the amount given to the foundation from taxation.

to maintain a critical level of capital within a single voting structure. Heirs are further prohibited from squandering the inheritance (except through mismanagement of the firms they may indirectly control through the foundation), and the family may also gain social status by financing charitable activities.[10]

In 2018, there were approximately 17,000 ordinary and collection foundations in Sweden [6].[11] It has been estimated that approximately 90% of all registered foundations are tax exempt [53]. Most foundations are small. Nevertheless, a few foundations are used to control a large share of Swedish industry, as described in the next section.

2.1 Industrial foundations and family business groups

Sweden was a poor agricultural country until industrialization leveled off in the second half of the 19th century. A small number of successful entrepreneurs took the lead and established family business groups controlling a large share of Swedish industry [see, e.g., 7, 9, 11, 12, 34, 39–43, 47]. Because of their economic significance, they have received attention from policy makers and analysts investigating their influence [e.g., 23, 24, 57]. However, no systematic examination of their influence emerged until the early 1960s when the government launched an inquiry to investigate the control of Swedish industry [51], the so-called concentration inquiry (*Koncentrationsutredningen*).

The inquiry found that 17 ownership spheres controlled one-third of the largest firms' capital and that one-fifth of all private sector employees were employed in firms controlled by these ownership spheres (excluding bank and insurance companies). Fourteen of these spheres were controlled by family business groups.[12] Of the other three, two were controlled by managers (who did not hold any controlling shares) and one did not have any controlling ambition.[13] In 8 of the 17 spheres, foundations were used as the main control vehicle.[14] A more detailed analysis of the foundations reveals that most of the foundations used to control Swedish industry were established in the post-war era (see Johansson *et al.* 28 for a detailed description).[15] Starting in 1985, Sundqvist [57] made yearly updates of ownership spheres. Hence, SOU 51 and Sundqvist are major sources of information when studying Swedish ownership spheres and family business groups.

The control of the business group was typically organized as a four-level control-ownership pyramid. The family is at the top of the pyramid. It *controls* one or several industrial foundations, the second level, through board representation. The foundation(s), in turn, is(are) dominant *owner*(s) in a listed, closed-end investment fund, representing the third level, that owns the listed and/or unlisted firms at the bottom of the pyramid. For instance, the *Knut och Alice Wallenbergs Stiftelse* is the most important industrial foundation in the Wallenberg sphere. It controls the closed-end investment fund Investor, which in turn controls firms such as Atlas Copco and Ericsson [e.g., 25, pp. 525–527]. In combination with differentiated voting rights (by means of dual-class shares) and pyramid building, several companies could be controlled with a relatively small amount of capital [15].

Hence, by controlling the industrial foundation(s), the family is the ultimate decision maker in a large business group without any, or negligible, personal ownership. The foundation's charter, which states that the board appoints its successors, guarantees the founding family's control over the foundation and family business group over generations. When the family business group is controlled by direct ownership, there is only a three-level control-ownership pyramid; the family directly owns the closed-end investment fund.

10 For instance, the Wallenberg family is highly regarded even if Sweden is an egalitarian society. One reason for this is that the Wallenberg foundations are substantial supporters of research, culture, and other charitable causes.

11 There is also a small number of employee, pension, and collective agreement foundations.

12 See Andersson *et al.* [2] for the importance of family firms in Sweden.

13 This refers to the so-called "Dunker sphere," which was controlled by Helsingsborg's city council and independent persons.

14 The ownership spheres controlled by foundations were the Ax:son Johnson family, the Dunker sphere, the Ericsson family, the Kempe family, the Söderberg family, the Wallenberg family, and the Åhlén family. The spheres that were not controlled by foundations (or where the foundations were of less importance for control) were Bergengren, Bonnier, Broström Custos/Säfveån–Skandinaviska Banken, Edstrand, Klingspor and Stenbeck, Kockum, Mark and Carlander, and Wehtje.

15 The founding year is listed in parentheses: Axel och Margaret Ax:son Johnsons Stiftelse för allmännyttiga ändamål (1947), Axel och Margaret Ax:son Johnsons Stiftelse (1947), Henry och Gerda Dunkers Stiftelse (1953), Åhléns-stiftelsen (1954), Ollie och Elof Ericssons Stiftelse för Vetenskaplig Forskning (1958), Stiftelsen Marcus och Amalia Wallenbergs Minnesfond (1960), Torsten Söderbergs Stiftelse (1960), Ragnar Söderbergs Stiftelse (1960), Ollie och Elof Ericssons Stiftelse för Välgörande Ändamål (1961), Stiftelsen Henry och Gerdas Donationsfond Nr 1 (1962), Stiftelsen Henry och Gerdas Donationsfond Nr 2 (1962), and Marianne och Marcus Wallenbergs Stiftelse (1963).
The main exceptions are Knut och Alice Wallenbergs Stiftelse (1917), Stiftelsen J.C. Kempes Minne (1936), and Stiftelsen Seth M. Kempes Minne (1941).

Three of the 17 ownership spheres identified in SOU 51 still exercise significant control over Swedish industry: the Ax:son Johnson, the Klingspor and Stenbeck, and the Wallenberg family business groups. The Wallenberg family business group is still the most influential of all business groups in Sweden, and the Ax:son Johnson family business group is one of the most influential business groups. The Wallenberg family business group is controlled by the fifth generation of family members and the Ax:son family business group by the fourth generation, which makes them the oldest of the large ownership spheres in terms of generational control. This indicates that industrial foundations may be effective in creating and sustaining large family business groups. This may be explained by the motives for establishing an industrial foundation, mentioned above: First, when tax favored, industrial foundations have a financial advantage; second, the risk of inheritance division is reduced; and third, heirs are hindered from squandering their inheritance.

Family governance was long considered inferior to managerial governance [see, e.g., 4, pp. 13–14]. A growing separation between ownership and control in the largest American corporations led to support for this view. It was confirmed in the late 1970s that the proportion of managerial enterprises among the 200 largest corporations in the United States had increased from 50% in 1929 to more than 80% [3, 22]. Later research examining corporate ownership around the word indicates that family control seems to be the general form of corporate governance and is prevalent among listed firms [e.g., 5, 10, 33]. This is also the case in Sweden, despite deregulations of financial markets and increased globalization, which have increased the possibilities for convergence toward the Anglo-American model of corporate control [19].

Research also finds that corporate control differs significantly across countries [e.g., 37]. For instance, industrial foundations play an important role as controlling owners in several countries, especially in northern Europe [e.g., 61, 62]. This is especially notable in Denmark, where foundation-controlled companies constitute approximately 70% of stock market capitalization [60], and in Sweden, where a few influential family business groups, notably the Wallenberg group as discussed above, have used foundations to exercise far-reaching control over Swedish industry. An explanation proposed, but not systematically examined, is that the tax system has favored industrial foundations over direct individual ownership. Next, we, therefore, turn our interest to the taxation of industrial foundations.

3 Taxation of industrial foundations

The calculation of the METR requires data on the evolution of the corporate income tax, the foundation's income tax, the wealth tax, and the inflation rate. Section 3.1 describes how the tax rules for industrial foundations have evolved and how foundation's income has been taxed over time. Section 3.2 presents the evolution of the corporate income tax, and Section 3.3 depicts the inflation rate. We refer to Henrekson and Stenkula [21], Johansson *et al.* [27], Stenkula *et al.* [55] for a more thorough presentation of the tax system.[16]

3.1 Tax rules for industrial foundations

Industrial foundations do not have to pay taxes on capital income, such as dividends, interest, and capital gains. They have also been exempted from taxes on wealth, inheritance, and gifts (when applicable for natural persons). However, they pay taxes on real estate, property income, and business income (*rörelseinkomst*). These rules have evolved over time because of changes in statutory laws and case law (*rättspraxis*).[17]

The roots of tax rules for foundations date back to the regulation from 1810, where the so-called pious foundations (*fromma stiftelser*) were exempted from taxation. The law stated that foundations were exempted from paying tax on chattels, immovables, gifts, and inheritance [56]. In the Appropriation Law (*Bevillningsförordning*) introduced in 1862, the tax exemption was extended to several areas such as research, education, childcare and healthcare.

The main idea behind a pious foundation was that all payouts should be used for charitable purposes. One rationale for the tax exemption was that these foundations spent money on activities that otherwise had to be financed by taxes. A foundation could have more than one purpose (and, as a consequence, use its revenues in more than one way). If only part of the foundation had charitable purposes, then these rules applied only to that part. If, for example, half of the foundation's activity had charita-

16 Note that the inheritance and gift tax, introduced in Sweden in 1885 and abolished as of 17 December 2004, is not included in the calculation of METR. The tax gave incentives to transfer ownership of private firms to industrial foundations after World War II; see Du Rietz *et al.* [8] for an analysis.

17 Case law is the set of decisions of courts that can be cited as precedent.

ble purposes (as stated, e.g., in the statutes of the foundation), half of the income must be spent on charitable purposes, and *this half* was exempted from income taxation. A foundation with multiple purposes could, in this way, both keep some money within the foundation and spend money on non-charitable purposes without being required to pay taxes on all income.[18]

In 1942, the legal framework was formalized and the current legal framework instituted [26]. The legislation was preceded by a long process based on a proposal from a tax committee in 1936. The rules have then remained largely unchanged. Before 1942, the main focus of the tax authorities was whether a foundation should be regarded as a pious foundation. Classification as a pious foundation was based on case law, but the case law was inconsistent because administrative courts could differ in their judgment of whether a foundation fulfilled the requirements to be tax exempt.

A main concern with the statutory law before 1942 was that it was possible for an industrial foundation to retain income and accumulate funds to be spent on charitable activities in the future that were instead spent on non-charitable activities. Although unlikely and difficult, the purpose of a foundation could be changed, or the foundation could be dissolved and liquated. Hence, there was a risk that tax-exempt income could be used for non-charitable activities (if the purpose of the foundation was changed) or could be obtained by ordinary people (if the foundation was liquidated).[19]

The new legislation clarified that foundations supporting charitable activity should be taxable only for income from property and business activity.[20] However, three conditions had to be met for other foundation income to be tax exempt:

- *The purpose requirement* (*ändamålskravet*) states that the foundation must have (a) charitable purpose(s). A list of charitable purposes was specified in the law [53]. This list replaced the concept of piousness in the law.[21]
- *The activity requirement* (*verksamhetskravet*) states that the aim of the foundation must be to *mainly* (*huvudsakligen*) promote charitable purposes. In practice, this means that 90–95% of the resources used must promote these charitable purposes.
- *The completion requirement* (*fullföljdskravet*) states that foundation's return must to a *reasonable extent* (*skälig omfattning*) be used to promote the purpose. "Reasonable" has, in case law, been defined as 80% of the *net* return (see below). Normally, this requirement could be fulfilled either in the current fiscal year or as an average for the last 4 years and the current year [14].

With a formal *completion requirement*, it would not be possible to accumulate (all or the bulk of) tax-exempted income in the foundation over time (on the grounds that it will be spent on charity sometime in a distant future). With the *activity requirement*, the foundation was, on the other hand, not obliged to use everything it spent (but only the main part) on charitable activities.[22]

The rules were now also made binary, meaning that either the tax exemption criteria were fulfilled–and then all income (with the exception of income from property and business income) was tax exempt–or the criteria were not met–and then all income had to be taxed (as if earned by a limited company). Hence, foundations could no longer divide their income into nontaxable (the charitable part) and taxable (the non-charitable part) income. Failing to satisfy one requirement was sufficient to be fully taxable. An alternative tax rule, which would keep the tax incentives for foundations with charitable purposes in place, could be to allow foundations to deduct all expenditures for charitable purposes and then tax the residual net income in the same way as other businesses. This option was rejected for two reasons: high administrative burden for the foundation and weakened opportunities for consolidation because new investments would have to be carried out with post-tax incomes [52]. Note that the sharp reduction in the corporate income tax rate since the 1980s has made the latter argument less valid.[23]

18 See SOU 50 and SOU 53 for more detailed discussions.

19 There is a limited possibility to change the taxation of past income. Current tax law allows the tax authority to change the taxation of income 2 years in the past after an appeal and at most 5 years in the past if incorrect information was reported on the tax return.

20 At this time, the property tax had two components, local and national, and these foundations had to pay only the local part. It was argued that removing the local part would reduce municipal financing in a non-legitimate manner.

21 With the 1942 legislation, the definition of research was broadened, but the change in practice was negligible because the interpretation was already generous [56].

22 All activity must, however, be in line with the purpose of the foundation.

23 The statutory corporate income tax has decreased from above 50% during the 1980s to slightly above 20% (see Section 3.2).

In practice, the new rules implied that, on average, approximately 80% of the net return had to be spent every year, and of these expenditures, 90–95% must be on activities that the tax authority regards as charitable.

There have been some changes since 1942, but the idea behind the rules has remained basically unchanged. In 1964, the definition of charitable purposes was widened to include Nordic cooperation, and in 1984, the municipal taxation of legal entities was abolished. No specific changes in the taxation of industrial foundations were made as part of the major Swedish tax reform in 1990–1991. In 1999, the *activity requirement* was changed from *mainly* (*huvudsakligen*) to *solely or virtually solely* (*uteslutande eller så gott som uteslutande*). The tax laws for foundations were made more liberal in 2014 (including that the concept of philanthropic purposes was widened again), but these changes did not essentially change the possibility to own or control firms via foundations [14].

Importantly, *no exact numbers* are mentioned directly in the law. Both case law and circumstances are relevant for the exact determination of how much of the return has to be used for charitable purposes to exempt a foundation from most taxes instead of being liable for full taxation on all its net income.

3.1.1 The completion requirement and the requirement base

As described in the section above, approximately 80% of the net return has to be spent on charitable purposes to fulfill the completion requirement. However, when calculating this net return, several costs and revenues are deductible from the total return. We will denote remaining amount, from which 80% has to be donated, as "the requirement base."

The requirement base includes the current income in the form of all revenues from interest and dividends, whereas capital gains are excluded.[24] Income from business activity and property is likewise not included because such income is not tax exempt for industrial foundations [14].

Gifts and inheritances donated to the industrial foundation after its establishment have to be included in the requirement base if it is stated in the will that they must be used to promote the charitable purposes of the foundation. This is in contrast to the original endowment, where only the return is to be distributed. However, without this explicit statement in the will, bequests and other gifts are normally not included in the requirement base, that is, a foundation is not committed to spend 80% of these bequests and gifts on charitable purposes, only 80% of their return [46].

Finally, direct and indirect costs associated with earning the income (*kostnader för intäkternas förvärvande)*, such as remuneration to board members, are deductible. The general rule is that costs that would be tax deductible in a situation where the income is taxable are deductible from the gross income when calculating the requirement base [58].[25]

The requirement base can be expressed as follows:

$$\begin{aligned}\text{Requirement base} = {} & \text{Total income} - \text{Business income} \\ & - \text{Property income} - \text{Capital gains} \\ & - \text{Gifts and bequests} - \text{Costs} \\ & \text{associated with earning the tax} \\ & \text{exempt income}\end{aligned} \quad (1)$$

Although it is not clearly stated in the law, costs associated with fulfilling the completion requirement (*fullföljdskostnader*), such as costs for distributing information about scholarships or costs for evaluating scholarship applications, are normally included in the 80% so that 20% can always be reinvested [13].

For the purpose of this article, the most important thing to note in Equation (1) is that dividends and interest are included in the requirement base, but capital gains are not. As dividends and capital gains are not treated equally, it is possible to influence how much of the total return the foundation has to use to promote its purpose.[26]

3.1.2 Summary and conclusion concerning foundations

In the modern era, it has been possible to use foundations to avoid taxes on personal income, wealth, gifts, and inher-

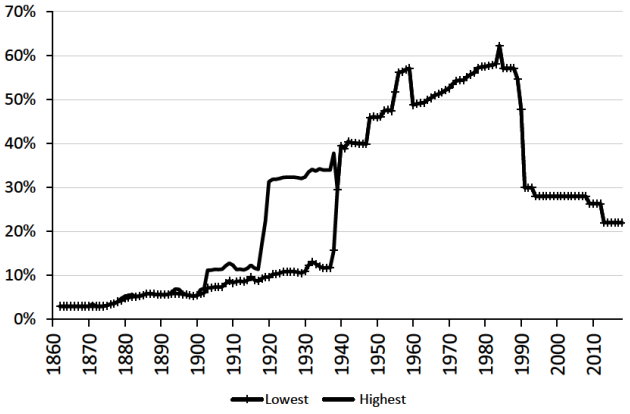
24 For certain financial instruments, it is difficult to distinguish between the current income and capital gains. There are well-defined rules for some instruments, but for other instruments, one must use a case-by-case methodology.

25 Generally, a cost can reduce the requirement base or be included in the completion requirement. However, there are court cases in which costs have not been allowed to reduce the requirement base or to be included in the completion requirement. For a detailed description, see Melz [36].

26 This is possible if the foundation can influence the dividend strategies of the firms in which it holds shares. This condition provides incentives for the foundation to control sufficiently large voting rights to have such influence.

itance.[27] Although there have been discussions about extending tax liability, no such change has been effected. In essence, the regulatory changes for industrial foundations have mainly entailed the transformation of case law into statutory law. However, several court cases have assessed the boundaries of the possibility of being a tax-favored industrial foundation.

However, tax exemption comes at a cost. There are three major disadvantages of exercising control through a foundation instead of direct ownership. First, to control a company via a foundation, one must relinquish ownership of the capital. Second, the bulk of income must be used for purposes determined by the legislature (as described in Section 3.1). Finally, there is a lock-in effect; entrepreneurs can emigrate, whereas foundations cannot.[28] When taxation on entrepreneurs is eased, the opportunity cost of controlling firms through industrial foundations increases.



Note: The statutory marginal corporate income tax rate refers to the total effect of local and state corporate income taxes. The progressive state corporate income tax was replaced by a proportional tax in 1939.
Source: Johansson *et al.* [27] and updated by the authors.

Figure 1: The highest and lowest statutory marginal corporate income tax rate, 1862–2018.

3.2 Corporate income taxation

Profits made by corporations controlled by industrial foundations are subject to corporate income tax. Figure 1 depicts the evolution of the marginal corporate income tax rate from 1862 to 2018. Corporate taxes were paid to the state (national government) and, until 1985, to the municipality (local government). Corporate taxation was progressive between 1903 and 1939, and the figure shows the highest and lowest statutory tax rates during this period.

In the first 50 years of our study, corporate tax rates were low (below 13%) compared to later tax rates. The highest marginal tax rate increased sharply after World War I. The lowest marginal tax rate increased markedly in 1939 when the system was made proportional. The statutory tax rates continued to increase during the post-war period and exceeded 50% by the mid-1950s. The 1990–1991 tax reform decreased the statutory tax rate to 30%. The tax rate was lowered in four subsequent steps, reaching 22% in 2013. Between 1984 and 1990, an additional "profit sharing tax" on corporations was levied to finance the so-called wage-earner funds (*löntagarfonder*).[29]

There have been ample opportunities to reduce the statutory corporate tax by allowances and grants–particularly between 1939 and 1991, when the effective corporate tax rate could be substantially lower than the statutory corporate tax rate [48, 49]. The tax reform in 1990–1991 abolished most of these options, thus making the statutory and effective corporate tax rate much more equal.[30]

3.3 Inflation

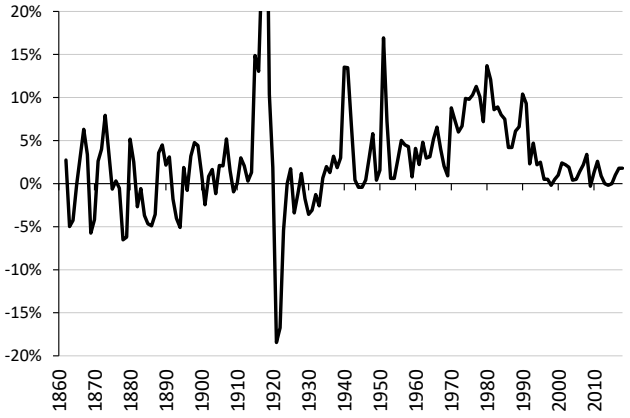
The inflation rate varied, with few exceptions, between −5% and +5% until World War I, but it was zero, on average, and the price level was virtually stable (see Figure 2). Inflation peaked during World War I and was close to 50% in 1918. Deflation followed the war with a policy to restore the price level to their pre-war levels, and deflation was nearly

27 Fully taxable foundations also have been favored over personal ownership. The marginal inheritance tax rate for natural persons has been as high as 60%, whereas, at the same time, it was 30% for taxable foundations [56], and as long as the wealth tax rate was progressive, foundations were favored because their tax rate was flat [14].

28 Of course, the foundation can own a subsidiary that pays no or little dividends and instead reinvest the profit under the same conditions as any other company. However, this (and other) more advanced ownership or tax structures are beyond the scope of this article.

29 It has been estimated that this tax increased the statutory corporate tax rate by approximately 5 percentage points [1]. However, there was a fear among businessmen that the rules might be sharpened. Unimplemented proposals with the purpose of transferring private ownership to the funds–which had been suggested before the formal rules came into effect–was seen as a threat to business by many owners [18, pp. 352–354]. This effect is not included in the METR because the King–Fullerton framework does not take business or political risks into account.

30 See Lodin [35, chapter 7] for further discussion about the design of the new corporate taxation.



Note: The inflation rates for 1917 (26%) and 1918 (47%) are excluded to increase clarity.

Source: http://www.scb.se/hitta-statistik/statistik-efter-amne/priser-och-konsumtion/konsumentprisindex/konsumentprisindex-kpi/pong/tabell-och-diagram/konsumentprisindex-kpi/inflation-i-sverige/

Figure 2: The inflation rate, 1862–2018.

20% in 1921. Sweden also experienced deflation at the end of the 1920s and the beginning of the 1930s. On average, the price level was roughly stable for approximately 80 years between 1862 and 1939. Inflation peaked again during World War II and during the Korea boom in the 1950s. In addition, inflation was moderate during the 1950s and 1960s and rarely exceeded five percent. It increased during the 1970s and 1980s and occasionally exceeded 10%. The central bank was granted independence, price stability was the prime goal of monetary policy, and an inflation target to keep inflation at approximately 2% was established in the 1990s. Inflation fell and was approximately 1%, on average, between 1994 and 2018.

4 The marginal effective tax rate on capital income (METR)

4.1 The model

The King and Fullerton [31] framework is a standard method for measuring the METR on investment projects in the nonfinancial corporate sector in both research and practice, for example, by the OECD. The framework accounts for all capital income taxes, corporate taxes, wealth taxes, and inflation that concern the investment decisions of the owner. Consequently, it accounts for the source of finance–new share issues, retained earnings, or debt–because capital incomes are taxed differently. Similarly, the METR will depend on ownership because different categories of owners are treated differently in tax law.

The METR is formally the difference between the pre- and post-tax real rate of return of a marginal investment project, divided by the pre-tax real rate of return. For example, if the pre-tax real rate of return on an investment project is *10%* and the post-tax real rate of return is *6%*, the METR will be *40% ((10-6)/10)*.

However, note that the METR is not simply an addition of corporate and owner-level taxation adjusted for inflation. It is an equilibrium model that is supposed to be solved where

(1) the present discounted value of the profits from the investment must equal the cost of the investment,
(2) the potential investor must be indifferent between receiving the after-tax revenue from the investment project and receiving the after-tax market interest rate (which in the model corresponds to the best alternative return).

4.2 Assumptions

Using the King–Fullerton framework and considering the rules and evolution of the tax system as presented in Section 3, we can calculate the METR for industrial foundations, with new share issues, retained earnings, and debt as sources of finance for the investment.[31] However, as always, when using a model, some assumptions must be made.

The *corporate income tax rate* is straightforward to incorporate when the corporate income tax system is proportional. We will use the top tax rate when the system is progressive (1903–1939).[32]

The *capital income tax rate* is first set to zero, because industrial foundations are exempt from paying tax on their capital income. This is in line with the analysis performed in earlier studies [30, 31, and, for Sweden, 48, 49].

However, industrial foundations are obliged to pay out the bulk of their capital income (less capital gains) for charitable purposes, as described in section 3. This imposes a

31 In the King–Fullerton framework, investments in machinery, buildings, and inventories are analyzed. In this study, we will analyze investments in machinery. We adopt to the standard assumptions of 20 percent marginal rate of return and 10 percent rate of exponential depreciation using the fixed-p model as described in King and Fullerton [31].

32 Using, for example, the lowest or the average of the highest and lowest tax rates in 1903–1939 would not change our general conclusions.

cash flow effect that weakens the ability to maintain control over the "sphere companies" and, hence, provides a negative incentive for entrepreneurs to use industrial foundations as a control vehicle. In fact, this effect parallels the cash flow effect caused by the personal capital income tax on dividends and interest. This cash flow effect has not been discussed or considered in previous analyses. To illustrate the impact on the incentives to control firms through direct individual ownership or through industrial foundations, we will make a complementary calculation of the METR where the requirement to donate a large part of the return for charitable purposes is treated as a tax. Although not formally correct, this calculation will capture the cash flow effect and further our understanding of the incentives to use industrial foundations to control companies.[33]

This complementary calculation requires an assumption regarding how large a share of its net income the foundation is obliged to donate. As described above, no exact numbers are mentioned in the statutory law, and both case law and the specific circumstances of the foundation are relevant for the exact determination of how much of the income has to be used for charitable purposes. Case law after World War II implies that, on average, approximately 80% of the net return has to be spent on charitable causes; we will use this percentage in our calculations for the whole period.

The *wealth tax rate* is set to zero, because industrial foundations are exempted from the wealth tax. Actual *inflation rates* are used in the calculations, as presented in Section 3.3.

There are special tax rules that must be accounted for during the period, for example, the Annell deduction, the investment fund system, a special additional allowance given between 1976 and 1978 and in 1980, and the SURV (*Skatteutjämningsreserv*, tax equalization reserve). These allowances lower the effectiveness of corporate taxation in different ways. The Annell deduction, however, only reduces corporate tax liability when new share issues are the source of finance. Between 1939 and 1951, the immediate write-off of investments was possible. These rules and how they are incorporated are described in Wykman [64]. Finally, the model assumes that no (further) tax changes will occur and that all tax allowances for investments can always be used.

33 A tax is formally defined as compulsory unrequited payments to general government.

4.3 Results

Figure 3 describes the METR with new share issues and retained earnings as a source of finance.[34] The METR for equity-financed investments was below 10% before World War I. It increased during World War I and in the interwar period. The highest level was reached, with spikes exceeding 40%, during the 1950s. The METR for new share issues and retained earnings differed between 1960 and 1993 because of the abovementioned Annell deduction, a tax deduction given only to investments financed with new share issues. After 1993, the METR fluctuates between 10% and 20%.

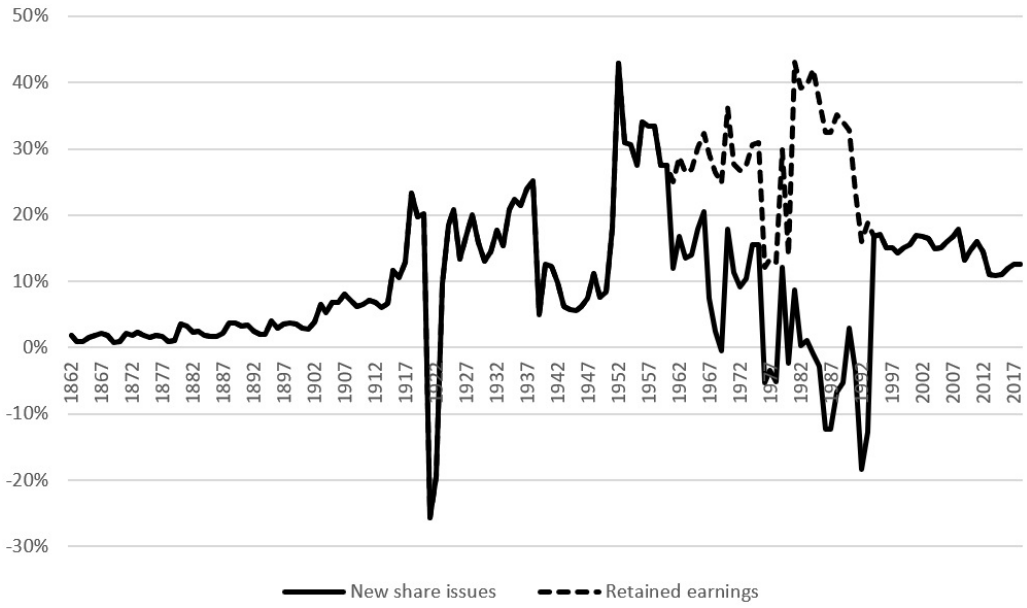
In the ordinary METR calculations, the income tax for the foundation is set to zero. In a strict sense, this is a true interpretation because donating a part of one's income cannot be equated with a tax. However, as discussed above, it can be argued that the METR calculated in this way does not correctly capture the incentive effects and that it may be misleading. The requirement to donate the bulk of the net income for charitable purposes has a negative cash flow effect similar to a dividend tax. This effect is not addressed in the ordinary King–Fullerton framework, but the METR can be recalculated to include this effect, as discussed in Section 4.2.

Figure 4 depicts the results when including this cash flow effect. In the case of new share issues, the METR generally fluctuates around 100% and 150%.[35] There are also occasional spikes reaching 200% or more.[36] The METR for retained earnings coincides with the earlier METR without any cash flow effect. Retained earnings enable investors to accumulate at a rate of return that is taxed by capital gains, and there is no cash flow effect because industrial foundations do not have to redistribute capital gains for charitable purposes. When including the donation requirement, the METR for new share issues increases substantially and is unfavorable as a source of finance compared to retained earnings.

34 As control is exercised through ownership, debt is a less relevant source of finance for industrial foundations. The METR for debt is presented in Johansson *et al.* [28].

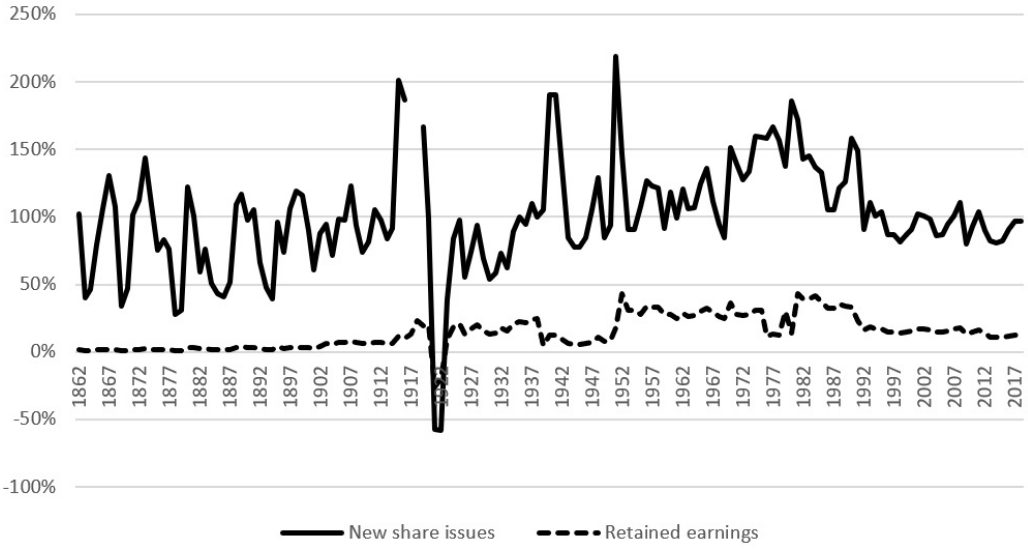
35 In the case of new share issues, the potential investor will require the return net of the dividend tax to be equal to the alternative investment, corresponding to the nominal interest rate net of the interest tax, that is, the investor will value the investment as if the investor will be remunerated through dividends only (see Wykman 64 for a more detailed description).

36 During World War I, the METR could exceed 300%, because of the very high inflation rate–which could be close to 50%–in combination with the requirement to donate the bulk of the net income for charitable purposes.



Source: Own calculation.

Figure 3: The marginal effective tax rate (METR), new share issues, and retained earnings, 1862–2018.

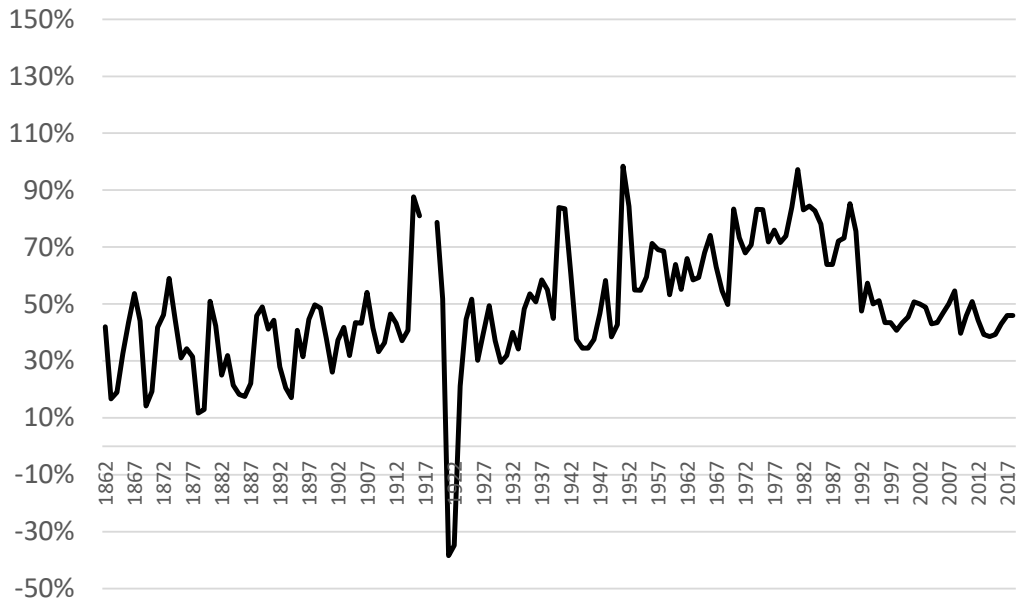


Note: The METR is calculated under the assumption that the foundation has to pay 80% of its net income for charitable purposes. The figure is truncated, and extreme spikes because of inflation (26% in 1917 and 47% in 1918) during World War I are excluded to increase clarity.
Source: Own calculation.

Figure 4: The marginal effective tax rate (METR), new share issues, and retained earnings, 1862–2018, including the cash flow effect.

The favorable treatment of retained earnings over new share issues favors incumbent, well-established, and mature firms, which historically have generated profits, in contrast to new entrants that lack retained earnings to use. Industrial foundations also generally prefer to finance investments with retained earnings to avoid the risk that ownership will be diluted, which is possible when using new share issues.

The METR for new share issues in Figure 4 should, however, be considered a maximum ceiling for two reasons: the donation requirement could be somewhat lower



Note: The METR is calculated under the assumption that the foundation has to pay 80% of its net income for charitable purposes. The calculations are made under the assumption that the stock return follows the average pattern in the stock market, that is, that dividend yields account for 40% of the return and price changes (capital gains) for 60%. The figure is truncated, and extreme spikes because of inflation (26% in 1917 and 47% in 1918) during World War I are excluded to increase clarity.
Source: Own calculations.

Figure 5: The marginal effective tax rate (METR), mixed case, 1862–2018.

than 80%, and the company may not distribute all profit as dividends but rather reinvest it.

As the foundation does not pay tax on capital gains, a complementary analysis is to decompose the true return on ownership into dividends and price changes on the underlying stocks, that is, capital gains, and use that as the basis for the calculation of the incentives. The share of dividend yields of the return on the public stock exchanges for the period 1870–2012 is, on average, approximately 40% [63], and a recalculation of the METR using this number is shown in Figure 5.

The METR fluctuates around 20–50% until World War II (ignoring the spikes). After the war and until the tax reform in 1990–1991, the METR fluctuates around 50–85%. After the tax reform, the METR decreases to approximately 40–50%. Under these assumptions, the METR will be lower and not exceed 100% (ignoring the spikes during World War I), even if the negative cash flow from donating the bulk of the dividends for charitable purposes is included.

5 Concluding remarks

This study has described the evolution of tax rules and calculated the METR on capital income for industrial foundations. The METR includes the effects of corporate income taxation, capital income taxation, and wealth taxation and the interactions of these taxes with inflation. It is calculated for an investment financed with new share issues and retained earnings. The investigation covers the period from 1862 to 2018.

Industrial foundations have been used by a few influential ownership spheres to exercise far-reaching control over Swedish industry because they do not have to pay taxes on capital income, wealth or inheritance and gifts. On the other hand, this tax exemption requires that they donate the bulk of their net capital income (less capital gains) for charitable purposes, which entails a negative cash flow that reduces the ability to retain control over companies. The donation requirement, therefore, creates a disincentive to control firms through industrial foundations. The requirement could be circumvented by selling shares instead of receiving dividends. However, this comes at the cost of losing control and has, therefore, generally been avoided.

Earlier analyses on the taxation of industrial foundations were conducted for occasional years from the 1960s and onwards. They have also disregarded the donation requirement, which is misleading if one wants to understand the ownership and control of Swedish industry. Furthermore, they excluded the time period when the most influential foundations were founded. We, therefore, perform a complementary analysis and calculate annual time-series data covering a longer time period than that in previous research, and we include the donation requirement in the METR calculations.

Our analysis shows that the METR is generally below 20% and occasionally peaks at approximately 40%. When taking the donation requirement into account, the METR is seldom below 50% when financing investments with new share issues and often exceeds 100%. When including the donation requirement, new share issues is a much less favorable source of finance than retained earnings. The results can be used to analyze the ownership and control of the Swedish industry in greater detail.

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References

[1] Agell, Jonas, Peter Englund, and Jan Södersten. 1995. Svensk skattepolitik i teori och praktik. In *SOU 1995:104 (Skattereformen 1990–1991: En utvärdering)*. Stockholm: Fritzes.

[2] Andersson, Fredrik W., Dan Johansson, Johan Karlsson, Magnus Lodefalk, and Andreas Poldahl. 2018. "The Characteristics of Family Firms: Exploiting Information on Ownership, Kinship, and Governance Using Total Population Data." *Small Business Economics* 51(3): 539–556.

[3] Berle, Adolf, and Gardiner Means. 1932. *The Modern Corporation and Private Property*. New York: Macmillan.

[4] Chandler, Alfred, and Herman Deams. 1980. *Managerial Hierarchies*. Cambridge: Harvard University Press.

[5] Claessens, Stijn, Simeon Djankov, and Larry HP Lang. 2000. "The Separation of Ownership and Control in East Asian Corporations." *Journal of Financial Economics* 58(1–2): 81–112.

[6] County Administrative Board. Länsstyrelsernas gemensamma stiftelsedatabas. https://stiftelser.lansstyrelsen.se/ Accessed 30 April 2019.

[7] De Geer, Hans. 1998. *Firman: Familj och företagande under 125 år: Från A. Johnson & Co till Axel Johnsongruppen*. Stockholm: Institutet för Ekonomisk-Historisk Forskning vid Handelshögskolan i Stockholm i samarbete med Atlantis.

[8] Du Rietz, Gunnar, Magnus Henrekson, and Daniel Waldenström. 2015. "Swedish Inheritance and Gift taxation (1885–2004)." In *Swedish Taxation*, edited by Magnus Henrekson and Mikael Stenkula, 223–265. New York: Palgrave Macmillan.

[9] Edvinsson, Therese N. 2005. *Att leda storföretag: En studie av social kompetens och entreprenörskap i näringslivet med fokus på Axel Ax:son Johnson och J. Sigfrid Edström, 1900–1950* (Dissertation). Stockholm: Stockholm University.

[10] Faccio, Mara, and Larry H.P. Lang. 2002. "The Ultimate Ownership of Western European Corporations." *Journal of Financial Economics* 65(3): 365–395.

[11] Feldt, Kjell-Olof. 2012. *Den blyge entreprenören: Om bergsingenjör Axel Ax:son Johnson*. Stockholm: Ekerlids.

[12] Glete, Jan. 1994. *Nätverk i näringslivet: Ägande och industriell omvandling i det mogna industrisamhället 1920–1990*. Stockholm: SNS (Studieförbundet Näringsliv och Samhälle).

[13] *Government Bill 2013/2014:1*. Stockholm: Finansdepartementet.

[14] Gunne, Cecilia, and Jerker Löfgren. 2014. *Beskattning av stiftelser och ideella föreningar*. 3 uppl. Uppsala: Nordstedts Juridik AB.

[15] Hagstedt, Jan A. 1972. *Om beskattning av stiftelser* (Dissertation). Uppsala: Uppsala University.

[16] Henrekson, Magnus. 2005. "Entrepreneurship: A Weak Link in the Welfare State?" *Industrial and Corporate Change* 14(3): 437–467.

[17] Henrekson, Magnus. 2017. "Taxation of Swedish Firm Owners: The Great Reversal from the 1970s to the 2010s." *Nordic Tax Journal* 4(1): 26–46.

[18] Henrekson, Magnus, and Ulf Jakobsson. 2001. "Where Schumpeter Was Nearly Right–The Swedish Model and Capitalism, Socialism and Democracy." *Journal of Evolutionary Economics* 11(3): 331–358.

[19] Henrekson, Magnus, and Ulf Jakobsson. 2012. "The Swedish Corporate Control Model: Convergence, Persistence or Decline?" *Corporate Governance: An International Review* 20(2): 212–227.

[20] Henrekson, Magnus, and Dan Johansson. 1999. "Institutional Effects on the Evolution of the Size Distribution of Firms." *Small Business Economics* 12(1): 11–23.

[21] Henrekson, Magnus, and Mikael Stenkula, eds. 2015. *Swedish Taxation: Developments since 1862*. New York, NY: Palgrave McMillan.

[22] Herman, Edward. 1981. *Corporate Control, Corporate Power*. Cambridge: Cambridge University Press.

[23] Hermansson, Carl Henrik. 1959. *Koncentration och storföretag*. Stockholm: Arbetarkultur.

[24] Hermansson, Carl Henrik. 1971. *Monopol och storfinans – de 15 familjerna*. Stockholm: Rabén och Sjögren.

[25] Högfeldt, Peter. 2007. "The History and Politics of Corporate Ownership in Sweden." In *A History of Corporate Governance around the World: Family Business Groups to Professional Managers*, edited by Randall K. Morck, 517–580. Chicago, IL: University of Chicago Press.

[26] Isoz, Henning. 1997. *Stiftelselagen: en kommentar*. 1. uppl. Stockholm: Norstedts juridik

[27] Johansson, Dan, Mikael Stenkula, and Gunnar Du Rietz. 2015. "Capital Income Taxation of Swedish Households, 1862–2010." *Scandinavian Economic History Review* 63(2): 154–177.

[28] Johansson, Dan, Mikael Stenkula, and Niklas Wykman. 2018. "The Rise of Private Foundations as Owners of Swedish Industry: The Role of Tax Incentives 1862–2018." Örebro University School of Business Working Paper No. 2018: 10. Örebro: Örebro University.

[29] Johansson, Dan, Mikael Stenkula, and Niklas Wykman. 2020. "Taxation of Swedish Owner-entrepreneurs, 1862 to 2018." Essay

3 in Niklas Wykman, *Essays on Taxation and Entrepreneurship*, PhD Thesis, *forthcoming*. Örebro: Örebro University

[30] Jorgensen, Dale, and Ralph Landau. 1993. *The Tax Reform and the Cost of Capital: An International Comparison*. Washington, DC: Brookings Institution.

[31] King, Mervyn, and Don Fullerton, eds. 1984. *The Taxation of Income from Capital: A Comparative Study of the United States, the United Kingdom, Sweden and West Germany*. Chicago, IL: University of Chicago press.

[32] Kronke, Herbert. 1988. *Stiftungstypus und Unternehmensträgerstiftung*. Tübingen: J.C.B. Mohr.

[33] La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. 1999. "Corporate Ownership around the World." *The Journal of Finance* 54(2): 471–517.

[34] Lindgren, Håkan. 2007. *Jacob Wallenberg 1892–1980*. Stockholm: Atlantis.

[35] Lodin, Sven-Olov. 2011. *The Making of Tax Law*. Uppsala: Iustus förlag.

[36] Melz, Peter. 1998. "Något om fullföljdskravet för allmännyttiga stiftelser." *Svensk Skattetidning* 1998: 155–186.

[37] Morck, Randall K., ed. 2007. *A History of Corporate Governance around the World: Family Business Groups to Professional Managers*. Chicago, IL: University of Chicago Press.

[38] Morck, Randall, and Masao Nakamura. 2007. "Business Groups and the Big Push: Meiji Japan's Mass Privatization and Subsequent Growth." *Enterprise & Society* 8(3): 543–601.

[39] Nilsson, Göran B. 1984. *André Oscar Wallenberg. 1, Odysséernas år 1816–1856*. Stockholm: Norstedts.

[40] Nilsson, Göran B. 1989. *André Oscar Wallenberg. 2, Gyllene tider 1856–1866*. Stockholm: Norstedts.

[41] Nilsson, Göran B. 1994. *André Oscar Wallenberg. 3, Ett namn att försvara 1866–1886*. Stockholm: Norstedts.

[42] Olsson, Ulf. 2001. *Furthering a Fortune*. Stockholm: Ekerlids.

[43] Olsson, Ulf. 2006. *Finansfursten K. A. Wallenberg 1853–1938*. Stockholm: Atlantis.

[44] Rosenstein-Rodan, Paul Narcyz. 1943. "Problems of Industrialisation of Eastern and South-Eastern Europe." *The Economic Journal* 53(210/211): 202–211.

[45] SFS (Swedish Code of Statutes) No. 1994:1220. Stiftelselag. Stockholm: Finansdepartementet.

[46] SFS (Swedish Code of Statutes) No. 1999:1229. Inkomstskattelag. Stockholm: Finansdepartementet.

[47] Sjögren, Hans 2017. *Familjedynastier: Så blev Sverige rikt*. Stockholm: Volante.

[48] Södersten, Jan. 1984. "Sweden." In *The Taxation of Income from Capital: A Comparative Study of the United States, the United Kingdom, Sweden and West Germany*, edited by Mervyn King and Don Fullerton, 87–148. Chicago, IL: University of Chicago Press.

[49] Södersten, Jan. 1993. "Sweden." In *The Tax Reform and the Cost of Capital: An International Comparison*, edited by Dale Jorgenson and Ralph Landau, 270–99. Washington, DC: Brookings Institution.

[50] SOU (Swedish Government Official Reports) 1939:47. *Betänkande med förslag rörande beskattning av stiftelser och ideella föreningar m. fl. juridiska personer m. m.* Stockholm: Finansdepartementet.

[51] SOU (Swedish Government Official Reports) 1968:7. *Ägande och inflytande i det privata näringslivet, Koncentrationsutredningen*. Stockholm: Finansdepartementet.

[52] SOU (Swedish Government Official Reports) 1995:63. *Översyn av skatteregler för stiftelser och ideella föreningar*. Stockholm: Fritzes.

[53] SOU (Swedish Government Official Reports) 2009:65. *Moderniserade skatteregler för ideell sektor*. Stockholm: Fritzes.

[54] Stenkula, Mikael. 2014. "Swedish Taxation in a 150-year Perspective." *Nordic Tax Journal* 1(2): 10–42.

[55] Stenkula, Mikael, Dan Johansson, and Gunnar Du Rietz. 2014. "Marginal Taxation on Labour Income in Sweden from 1862 to 2010." *Scandinavian Economic History Review* 62(2): 163–187.

[56] Stenshamn, Allan. 1967. *Beskattning av ideella föreningar och stiftelser*. Stockholm: Bokförlaget Forum AB.

[57] Sundqvist, Sven-Ivan. 1985–2015. *Ägarna och makten i Sveriges börsföretag*. Stockholm: SIS Ägarservice AB; 1994–2002 with Anneli Sundin, 2003–2011 with Daniel Fristedt, and 2012–2014 with Daniel Fristedt, and Åsa Larsson.

[58] Swedish Tax Agency. 2018. *Rättslig vägledning*. https://www4.skatteverket.se/rattsligvagledning/edition/2018.7/325007.html Accessed 30 April 2019

[59] Thomsen, Steen. 1999. "Corporate Ownership by Industrial Foundations." *European Journal of Law and Economics 7*(2): 117–137.

[60] Thomsen, Steen. 2017. *The Danish Industrial Foundations*. Copenhagen: DJOEF Publishing.

[61] Thomsen, Steen. 2018. "Foundation Ownership and Firm Performance." In *Corporate Governance in Contention*, edited by Ciaran Driver and Grahame Thompson, 66–85. Oxford: Oxford University Press.

[62] Thomsen, Steen, Thomas Poulsen, Christa Børsting, and Johan Kuhn. 2018. "Industrial Foundations as Long-Term Owners." *Corporate Governance: An International Review* 26(3): 180–196.

[63] Waldenström, Daniel. 2014. "Swedish Stock and Bond Returns, 1856–2012." In *Historical Monetary and Financial Statistics for Sweden: House Prices, Stock Returns, National Accounts and the Riksbank Balance Sheet, 1860–2012*, edited by Rodney Edvinsson, Tor Jacobson, and Daniel Waldenström, 224–91. Stockholm: Sveriges Riksbank and Ekerlids Förlag.

[64] Wykman. Niklas. 2020. "Calculating Effective Tax Rates for Active Owners in a Dual Tax System: The Swedish Case." Essay 1 in Niklas Wykman, *Essays on Taxation and Entrepreneurship*, PhD Thesis, *forthcoming*. Örebro: Örebro University.