

# **The Rise of Industrial Foundations as Owners of Swedish Industry: The Role of Tax Incentives 1862–2018\***

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*Abstract:* The tax system has at times favored firm control through industrial foundations, which has been argued to inhibit entrepreneurship and economic growth. However, research has been hampered due to a lack of systematic historical tax data. The purpose of this study is threefold. First, we describe the evolution of tax rules for industrial foundations in Sweden between 1862 and 2018. Second, we calculate the marginal effective tax rate on capital income. Third, we examine the incentives to use industrial foundations as a means for corporate control by comparing the taxation of industrial foundations and an owner of a listed firm facing the highest marginal tax. Tax incentives help explain why economically significant industrial foundations were founded between World War I and the 1960s.

*Keywords:* family firms; foundations; high-impact entrepreneurship; owner; taxation

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## 1. Introduction

Industrial foundations have been an important means for a few influential family groups to exercise far-reaching control over Swedish industry, possibly because they have been tax-exempt. This has provided an advantage over firms controlled by personal ownership. It has been argued that this has hampered entrepreneurship and consequently economic growth (Henrekson, 2005; Henrekson & Jakobsson, 2001; Henrekson & Johansson, 1999). However, there are no time series on the taxation of industrial foundations, and it has therefore been impossible to estimate to what extent 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 the assets among several heirs, losing capital to inheritance tax, or in other ways weaken the ownership or voting structure. The donation of the firm's shares to the foundation is irrevocable, and the foundation is governed by a board obligated to fulfil the goals expressed in the foundation's charter. Normally the charter dictates a philanthropic purpose alongside with the goal of developing the business. The philanthropic goal is a necessary condition for achieving a favored tax status (Kronke, 1988, p. 7; Thomsen, 1999, pp. 119–121).

As will be described later in more detail, Swedish foundations with charitable purposes (Swedish: *allmännyttiga stiftelser*) are exempted from tax 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-based tax system) and source of finance (because different sources of finance are treated differently by tax law). They may also pay other taxes, e.g., property taxes or

taxes on business activity. Previous research, e.g., King-Fullerton (1984), Södersten (1984, 1993) and Henrekson and Jakobsson (2001), has denoted these foundations ‘tax-exempt foundations.’

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. Third, we examine the incentives to use industrial foundations as a control vehicle by comparing the taxation of industrial foundations and an owner of a listed firm facing the highest marginal tax. This taxation of direct individual ownership (DIO) could be a proxy for the taxation of so-called high-impact entrepreneurs.<sup>1</sup> The analysis covers the years 1862 to 2018.

The METR is an established tax measure used to compare tax rates between countries and investment projects (e.g., Johansson et al., 2015; Johansson et al., 2019; Öberg, 2003; Södersten, 1984, 1993 and Wykman, 2019). It analyzes the effect of capital taxation on a marginal investment accounting for the total effect of the taxation of owners; i.e., it includes the effects from corporate income taxation, capital income taxation and wealth taxation, and the interactions of these taxes with inflation.

The analysis complements earlier studies on the evolution of the taxation of households (Johansson et al., 2015) and owners of closely held corporations (Johansson et al., 2019). It is part of a comprehensive project to characterize the Swedish tax system from 1862, when Sweden introduced a new tax system, up until the present.<sup>2</sup> Henrekson and Stenkula (2015) and Stenkula (2014) summarize the results.

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<sup>1</sup> We will use the term high-impact entrepreneurs for entrepreneurs who successfully commercialize key innovations, which may generate extra ordinary income and wealth. As will be shown, the industrial foundations controlling a significant share of Swedish industry were founded by high-impact entrepreneurs or their descendants. However, ‘entrepreneurial income and wealth’ is not recognized in the tax code, and we will approximate the taxation of high-impact entrepreneurs with an owner of a listed firm facing the highest marginal tax.

<sup>2</sup> Seven key aspects have been treated in previous studies: the taxation of capital income of households, consumption, gifts and inheritance, labour income, real estate, wealth, and taxation

Our analysis helps explain why the economically significant industrial foundations were established between World War I and the 1960s. Tax incentives for exercising control through industrial foundations were negligible until World War I. Increased taxes after World War I, especially after World War II, made it most difficult to retain and transfer the ownership of large family firms to the next generation. Starting in 1991, tax reforms made the tax system more neutral. In fact, personal ownership is cash flow favored; i.e., owners who hold stocks personally can keep a larger share of the cash flow generated in the company because industrial foundations have to distribute the bulk of their capital income (excluding capital gains) to charitable purposes.

The rest of the paper 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 examines tax incentives for entrepreneurs to exercise the control of firms through industrial foundations by comparing the taxation of an owner of a listed firm facing the highest marginal tax with an industrial foundation. Section 6 concludes the paper. Appendix A presents the marginal tax rates used in the calculations. Appendix B gives a detailed description of the industrial foundations in Sweden. Appendix C illuminates an alternative way of how the tax system affects the incentives and return on investments made by industrial foundations.

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of the owners of closely held firms (See Henrekson & Stenkula, 2015; Johansson et al., 2019; Wykman, 2019).

## 2. Industrial foundations and family control

Foundations in Sweden date back to the Christianization of Sweden, when people made donations to the church, for instance, for poor relief. Since the 18<sup>th</sup> 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 19<sup>th</sup> century (SOU 1995:63). However, foundations were separately regulated by law first in 1929 through the so-called Supervision Act (*Tillsynslagen*). In 1996, foundations received an unambiguous legal definition in the Foundation Act (*Stiftelselagen*) (Gunne & Löfgren, 2014). One does, however, need to distinguish between the civil and tax legislations. The Foundation Act (SFS No. 1994:1220) defines the foundations in civil law, but the tax legislation is separate and described in Section 3

Foundations are heterogeneous, but they share some common traits. First, a foundation is founded when property is permanently separated and dedicated to the promotion of a particular purpose (Stenshamn, 1967). Second, foundations are self-owned (i.e., lack owners) and governed by their statutes (Gunne & Löfgren, 2014).

Foundations can be sorted into different categories depending on what features are of interest. One distinction is between *dependent* and *independent*, i.e., 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 (SFS No. 1994:1220).

Another sorting method is to divide foundations into *return foundations* (*avkastningsstiftelser*) and *business foundations* (*näringsdrivande stiftelser*), where the former meets its purpose by funding different activities, primarily by the return on its capital, and the latter by conducting business. Foundations that conduct business are rare, however, since a foundation does not offer the same flexibility as a limited company (Gunne & Löfgren, 2014).

A third sorting method is by purpose, and the foundations are then normally divided into the following categories (SOU 2009:65):

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

Ordinary foundations are a broad category and include foundations with a wide variety of purposes, e.g., local charity work and scholarships, family foundations<sup>3</sup> 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 not allowed to be distributed; it is only the return on the assets that can be distributed. However, if it is stated in the statutes that the foundation is allowed to use the capital, it might distribute the assets, as long as the foundation can fulfil its purpose (*varaktighetskravet*) over time (Isoz 1997).

Collection foundations are similar to the 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 might be saved, and there are hybrids between collection funds and those who only use their return to finance their purpose. From a tax perspective, this distinction lacks relevance (Gunne & Löfgren, 2014).

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<sup>3</sup> Family foundations hold funded assets with the purpose of promoting a particular family's prosperity.

Collective agreement foundations have a more precise purpose: to support the transformation of the labor market. This can be done in a number of ways, such as education, financial support for accepting lower paid jobs and early retirement. These foundations are funded by the employers as a part of the collective agreement and controlled by the trade unions and employers' organizations.

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

For the purpose of this paper, the most relevant property of the foundations is their tax condition. In general, ordinary foundations have to pay tax on all income; i.e., they are fully taxable (SFS No. 1999:1229). The collection foundation has the same tax conditions as the 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 real estate tax (*fastighetsskatt*) and tax for any income from property (*fastighetsinkomst*).

Pension foundations are fully taxed for property income and real estate, and their return is taxed at a rate of 15 percent on the net assets multiplied by the government borrowing rate (*statslåneräntan*) (Gunne & Löfgren, 2014, p. 76). Employee foundations normally have full tax liability (*oinskränkt skattskyldighet*). Provisions to employee foundations are tax deductible at the firm level, and payments from the foundation to the personnel are taxed as income of employment (*inkomst av tjänst*) (Gunne & Löfgren, 2014).

However, foundations that promote charitable purposes are exempted from tax on capital income, wealth, inheritance and gifts.<sup>4</sup> To be exempted from tax on capital

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<sup>4</sup> 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 (SOU 2009:65).

income, there are certain rules that have to be met (as explained in more detail in Section 3).<sup>5</sup> This possibility provides an opportunity for entrepreneurs to keep firms under family control over generations in spite of taxation.<sup>6</sup> By establishing an industrial foundation, with the purpose of promoting charitable purposes, the foundation will have limited tax liability and the assets are not allowed to be distributed.<sup>7</sup>

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 to maintain a critical level of capital within one voting structure. Heirs are further prohibited from squandering the inheritance, and the family may also gain social status by financing charitable activities.<sup>8</sup>

### ***2.1. Ownership spheres and industrial foundations<sup>9</sup>***

There are no information or time series of foundations' total assets because this information has not been collected and reported to a central register. Foundations have,

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Even though 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.

<sup>5</sup> Family foundations are taxed as a natural person (Stenshamn, 1967) because their purpose is to favour a particular family, and they cannot be philanthropic by definition.

<sup>6</sup> Because the wealth is meant to be distributed, collection foundations are not used as an instrument to exercise control over firms.

<sup>7</sup> Ordinary foundations with the purpose to promote charitable purposes share commonalities with private foundations in the USA; they are independent legal entities set up for solely 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 where 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. However, donors are not provided with a tax deduction in Sweden.

<sup>8</sup> 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.

<sup>9</sup> A more detailed description is provided in Appendix B.



however, been important devices for ownership spheres to exercise control over Swedish industry. In particular, they have been used to build and maintain a strong influence on Swedish industry by a small group of successful entrepreneurs and their families. In combination with differentiated voting rights and so-called ‘pyramid-building’, several companies could be controlled with a relatively small amount of capital (Hagstedt, 1972). These spheres are few and well known and have a large influence on the Swedish economy, which makes them possible to identify. Because of their economic significance, they have received attention from policy makers and analysts who have investigated their assets and influence (e.g., Hermansson, 1959, 1971; Sundqvist, 1985–2015). There are also a number of bibliographies describing the entrepreneurs and their family groups (e.g., de Geer, 1998; Edvinsson, 2005; Feldt, 2012; Glete, 1994; Lindgren, 2007; Nilsson, 1984, 1989, 1994; Olsson, 2006; Sjögren, 2017).

In the early 1960s, 17 ownership spheres controlled one-third of the largest firms’ capital, and one-fifth of total private employment was employed in firms controlled by these ownership spheres (excluding bank and insurance companies). Fourteen of these spheres were controlled by family groups.<sup>10</sup> Of the other three, two were controlled by managers (who did not hold any controlling shares), and one did not have controlling ambitions (SOU 1968:7).<sup>11</sup> Foundations have been used as the main controlling device in approximately half of the ownership spheres (eight of 17).<sup>12</sup>

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<sup>10</sup> See Andersson et al. (2018) for the importance of family firms in Sweden.

<sup>11</sup> This refers to the so-called ‘Dunker sphere’, which was controlled by Helsingborg’s city council and independent persons.

<sup>12</sup> 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-Stenbeck, Kockum, Mark and Carlander and Wehtje.

In 2018, there were approximately 17,000 ordinary and collection foundations in Sweden<sup>13</sup> (County Administrative Board, *Länsstyrelsen*). It has been estimated that approximately 90 percent of all registered foundations are tax-exempt (SOU 2009:65). The overwhelming majority of all foundations are also small. Nevertheless, a few foundations control a large share of Swedish industry. Interestingly, the largest foundations are the same as those identified in the early 1960s. The foundations controlled by the Wallenberg and the Ax:son Johnson families stand out. There are also some new emerging family groups that have created substantial wealth, e.g., Fredrik Lundberg's, Gustaf Douglas', Melker Schörling's, Sten A. Olsson's and Stefan Persson's family groups. Notably, these family groups do not rely on foundations as a device for control but control their groups by personal ownership of their wholly owned holding companies.<sup>14</sup>

A closer analysis of the founding of the foundations reveals that most of the foundations used to control Swedish industry were established in the post-war era (see Appendix B for a detailed description).<sup>15</sup> The exceptions are *Knut och Alice Wallenbergs Stiftelse* founded in 1917 and *Stiftelsen J.C. Kempes Minne* (1936) and *Stiftelsen Seth M. Kempes Minne* (1941). Knut and Alice Wallenberg had no children, and Knut was 64 years old in 1917. *Stiftelsen J.C. Kempes Minne* and *Stiftelsen Seth M.*

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<sup>13</sup> And an additional small number for employee, pension and collective agreements foundations.

<sup>14</sup> The new family groups have also established foundations, but these foundations are too small to be primarily used for control.

<sup>15</sup> Founding year 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 Vägörande 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).

*Kempes Minne* was founded by Charlotte ‘Lotty’ Bruzelius (1855–1941) in memory of her father J.C. Kempe and her brother, Seth Kempe. She died childless.

Notably, the founding wealth in the foundations used as a control vehicle emanates from individuals acting as entrepreneurs during the period when Sweden was industrialized in the second half of the 19<sup>th</sup> century. Their entrepreneurship was of extraordinary quality contributing to transformation of industries and having an impact on the growth of the aggregate economy.

### **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 a 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. As industrial foundations do not pay wealth taxes, we do not describe the evolution of this tax. We refer to Henrekson and Stenkula (2015), Johansson et al. (2015) and Stenkula et al. (2014) for a more thorough presentation of the tax system.

#### ***3.1. Tax rules for industrial foundations***

Industrial foundations do not have to pay tax on capital income, such as dividends, interest and capital gains. They have also been exempted from taxes on wealth, inheritance and gifts (when that has been applicable for natural persons). However, they have to pay taxes on real estate, property income and business income (*rörelseinkomst*). These rules have evolved through time in a combination of changing statutory laws and

case laws (*rättspraxis*).<sup>16</sup>

The roots of tax rules for foundations go back to regulation from 1810, where so-called pious foundations (*fromma stiftelser*) were exempted from tax. Already in 1810, the tax law stated that foundations were exempted from paying tax on chattels, immovables, gifts and inheritance (Stenshamn, 1967). In the new Appropriation law (*Bevillningsförförordning*) introduced in 1862, the tax exemption was widened to several areas of research, education, childcare and healthcare.

The main idea behind a pious foundation was that all pay outs 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 directly through the political system. A foundation could, however, 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 for that part. If, for example, half of the foundation's activity had charitable 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 income on charitable purposes without being required to pay taxes on all income.<sup>17</sup>

In 1942, the legal framework was formalized, and the current legal framework was instituted (Isoz 1997). The legislation was preceded by a long process based on a proposal from a tax committee of 1936. The rules have then remained largely unchanged. Before 1942, the main focus of the tax authorities was whether a foundation could be regarded as a pious foundation. Classification as a pious foundation was based

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<sup>16</sup> Case law is the set of decisions of courts that can be cited as precedent.

<sup>17</sup> See SOU 1939:47 and SOU 2009:65 for a more detailed discussion.

on case law, but the case laws were not consistent since administrative courts could differ in their judgments whether a foundation fulfilled the requirement to be tax exempt.

One main concern with the statutory law before 1942 was that there existed a possibility for industrial foundation to retain income and accumulate funds to be spent on charitable activities in the future, but instead spend the funds on non-charitable activities. Although unlikely and difficult, the purpose of the foundation could be changed or the foundation could be dissolved and liquidated. Hence, there was a risk that tax-exempted 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).<sup>18</sup>

The new law legislation clarified that foundations supporting philanthropy should be taxable only for income from property and business activity.<sup>19</sup> However, three conditions had to be met for other incomes of a foundation to be tax exempt:

- *The purpose requirement (ändamålskravet)*, stating that the foundation must have (a) charitable purpose(s). A list of charitable purposes was specified in the law (SOU 2009:65). This list replaced the concept of pious in the law.<sup>20</sup>
- *The activity requirement (verksamhetskravet)*, stating that the aim of the foundation must be to *mainly (huvudsakligen)* promote charitable purposes. In

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<sup>18</sup> There is a limited possibility to go back in time and change the taxation of income. Current tax law allows the tax authority to change the taxation of income two years back in time after an appeal, and at most five years back in time, if incorrect information was presented in the income tax return.

<sup>19</sup> At this time, the property tax had two parts, local and national, and these foundations had to pay only the local part. It was argued that removing the local part would reduce the municipal financing in a non-legitimate manner.

<sup>20</sup> With the 1942 legislation, the definition of research was broadened but the change in practice was negligible since the interpretation was already generous (Stenshamn, 1967).

practice, this means that 90 to 95 percent of the resources used must promote these charitable purposes.

- *The completion requirement (fullföljdskravet)*, stating that the foundation's return to a *reasonable extent (skälig omfattning)* should be used to promote the purpose. 'Reasonable' has, according to case law, been defined as 80 percent of the net return (see below). Normally, this requirement could be fulfilled either in the current fiscal year or by summarizing the last four years and the year to come (Gunne & Löfgren, 2014).

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.<sup>21</sup>

The rules were now also made binary, meaning that either the criteria to be tax-exempted 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 non-taxable (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 with charitable purposes and then tax the residual net income in the same way as other businesses. This has been rejected for two main reasons: high

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<sup>21</sup> All activity must however be in line with the purpose of the foundation.

administrative burden for the foundation and weakened opportunities for consolidation since new investments would have to be carried out with post-tax incomes (SOU 1995:63). It should be noted that the sharp reduction in the corporate income tax rate since the 1980s has made the latter argument less valid.<sup>22</sup>

In practice, the new rules implied that, on average, approximately 80 percent of the net return had to be spent every year, and of these expenditures, 90 to 95 percent 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 the same. In 1964, the definition of charitable purposes was widened with Nordic cooperation, and in 1984, the municipality taxation of legal entities was abolished. No changes in the taxation of foundations were made during 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 (Gunne & Löfgren, 2014).<sup>23</sup>

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

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<sup>22</sup> The statutory corporate income tax has been reduced from above 50 percent to approximately 20 percent (see Section 3.2).

<sup>23</sup> Changes include that the legislature now specified philanthropic purposes as sports, culture, environmental care, care for children and adolescents, political activity, religious activity, health care, social ancillary, Sweden's defence and collaboration between agencies, education, scientific research and other equivalent activities (Gunne & Löfgren, 2014).

### 3.1.1. The completion requirement and the requirement base

As described in the Section above, approximately 80 percent of the net return has to be spent on charitable purposes to fulfil the completion requirement. However, when calculating this net return, several costs and incomes will be deductible from the total return. The remaining amount, out of which 80 percent has to be donated, we will denote “the requirement base.” The requirement base includes current income in the form of all revenues from interest and dividends, while capital gains are excluded.<sup>24</sup> Income from business activity and property is likewise not included because such income is not tax exempted for industrial foundations (Gunne & Löfgren, 2014).

Income from donations and bequests must be included in the requirement base if it is stated in the will that it must be used to promote the charitable purposes of the foundation. However, without this explicit statement in the will, bequests and other gifts are normally not included, i.e., a foundation is not committed to spend 80 percent of these bequests and gifts on charitable purposes (SFS No. 1994:1229).

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 (Swedish Tax Agency, 2018).<sup>25</sup>

The requirement base can be expressed as:

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

<sup>25</sup> Generally, a cost can reduce the requirement base, or be included in the completion requirement. However, there are court cases where costs have not been allowed neither to reduce the requirement base nor to be included in the completion requirement. For a detailed description, see Melz (1998).



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

Although it is not clearly stated in the law, costs associated with fulfilling the completion requirement (*fullföljidskostnader*), such as costs for distributing information about scholarships or costs for evaluating scholarship applications, are normally included in the 80 percent so that 20 percent can always be reinvested (Government bill 2013/2014:1).

For the purpose of this paper, the most important thing to note with Equation (1) is that revenues from dividends and interest are included in the requirement base, but capital gains are not. Since 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.<sup>26</sup>

### 3.1.2. Summary and conclusion concerning foundations

In modern times, it has always been possible to use foundations to avoid personal income, wealth and inheritance tax.<sup>27</sup> Although there have been discussions about extending the tax liability, this has not been executed. In essence, the regulatory changes for the industrial foundations have mainly entailed the transformation of case law into statutory law. However, there have been several court cases that have assessed

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<sup>26</sup> This is possible if the foundation can influence the dividends strategy for the firm in which it holds shares. This condition provides incentives for the foundation to control sufficiently large enough voting rights to have such influence. However, selling shares comes at the cost of losing control and therefore has generally been avoided.

<sup>27</sup> Fully taxable foundations also have had tax benefits in comparison with personal ownership. The marginal inheritance tax rate for natural persons has been as high as 60 percent, while at the same time, it has been 30 percent for taxable foundations (Stenshamn, 1967), and as long as the wealth tax rate was progressive, foundations were favored since their tax rate was flat (Gunne & Löfgren, 2014).

the boundaries for the possibility to be a tax-exempt foundation.

However, the tax exemption comes at a cost. There are three major disadvantages from exercising control through a foundation instead of direct ownership. First, to control a company via a foundation, one must relinquish the 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, while foundations cannot.<sup>28</sup> When taxation on entrepreneurs is eased, the opportunity cost of controlling firms through industrial foundations increases.

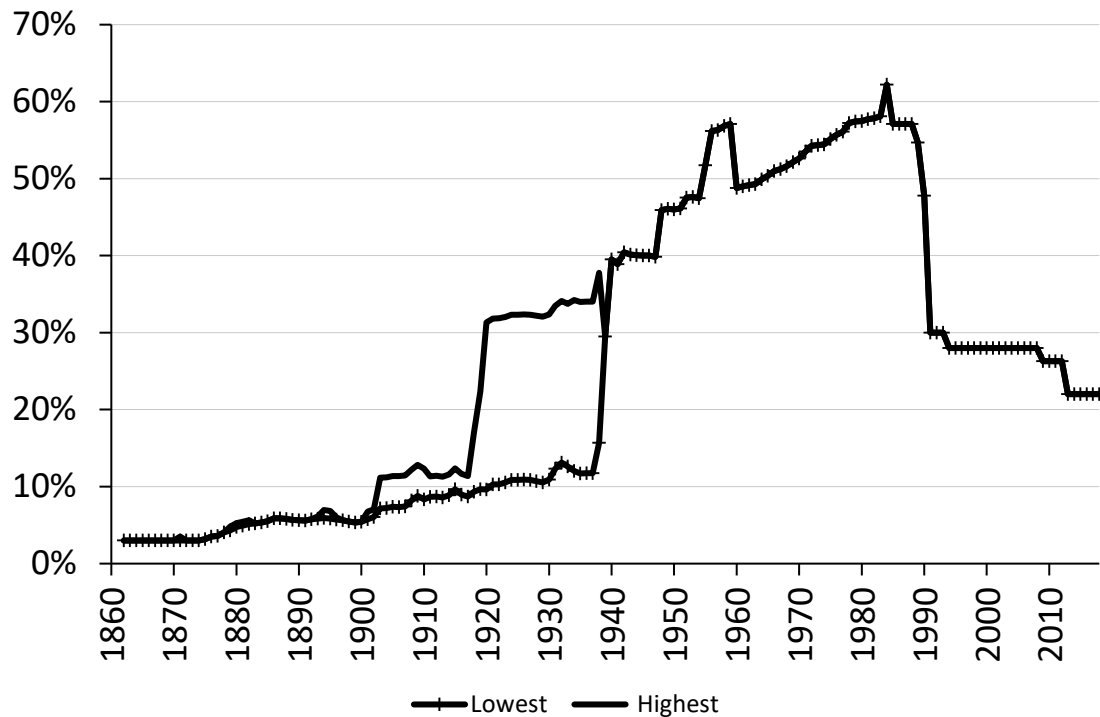
### ***3.2. Corporate income taxation***

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

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<sup>28</sup> Of course, the foundation can own a subsidiary who 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 is beyond the scope of this paper.

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



*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. (2015) and updating.

In the first 50 years of our study, the tax rates were low (below 15 percent) compared to later tax rates. The highest marginal tax rate increased sharply after World War I. The lowest marginal tax rate increased sharply in 1939 when the system was made proportional. The statutory tax rates continued to increase during the post-war period and exceeded 50 percent in the mid-1950s. The 1990–1991 tax reform decreased the statutory tax rate to 30 percent. The tax rate was lowered in three subsequent steps, reaching 22 percent in 2013. Between 1984 and 1990, an additional, specific ‘profit

sharing tax' (PST) on corporations was also levied to finance so-called wage-earner funds (*löntagarfonder*).<sup>29</sup>

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 (Södersten 1984, 1993). The tax reform in 1990–1991 abolished most of these options, thus making the statutory and effective corporate tax rate much more equal.<sup>30</sup>

### **3.3. Inflation**

The inflation rate varied, with few exceptions, between –5 and +5 percent 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 percent in 1918. Deflation followed the war with a policy to restore the price level to the pre-war level, and deflation was nearly 20 percent in 1921. Sweden also experienced deflation at the end of the 1920s and at 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 percent. The central bank was granted independence, price stability was made prime goal of monetary policy and

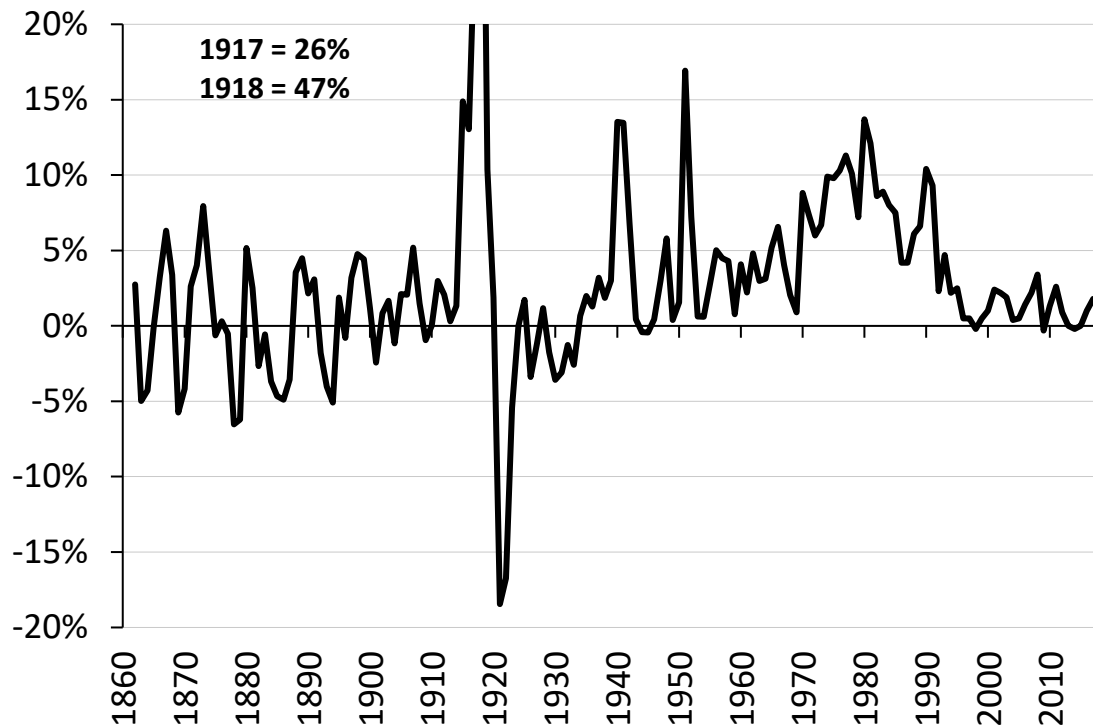
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<sup>29</sup> It has been estimated that this tax increased the statutory corporate tax rate by approximately five percentage points (Agell et al., 1995), which is not included in the figure but is considered in our calculations. However, there was a fear among businessmen that the rules might be sharpened. Non-implemented proposals with the purpose of transferring private ownership to the funds—which had been suggested before the formal rules came in place—was seen as a threat to business for many owners (Henrekson & Jakobsson, 2001, p. 352–354). This effect is not included in the METR because the King and Fullerton framework does not take business or political risks into account.

<sup>30</sup> See Lodin (2011, chapter 7) for further discussion about the design of the new corporate taxation.

an inflation target to keep inflation at approximately two percent was established in the 1990s. Inflation fell and was approximately 1 percent on average between 1994 and 2018.

Figure 2. The inflation rate, 1862–2018.



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/>

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

This Section will describe how the marginal effective tax rate on capital income (METR) is calculated for foundations (Section 4.1), assumptions made (Section 4.2) and how the METR has evolved over time between 1862 and 2018 for these foundations (Section 4.3).

#### **4.1. The model**

King-Fullerton (1984) investigates the METR on investment projects in the nonfinancial corporate sector using a framework that accounts for all capital income taxes, corporate taxes, wealth taxes and inflation that concern the investment decisions of the saver. The method also allows for the analysis and comparison of investment projects and national tax systems.

According to King-Fullerton (1984), the METR can be calculated as the difference between the pre-tax return,  $p$ , and the post-tax return,  $s$ , divided by the pre-tax return:

$$METR = \frac{p-s}{p} \quad (1)$$

For any investment project, the cost of capital,  $p$ , is defined as the minimum rate of pretax return it must yield, since, in equilibrium, the investor will require the whole return for him/her self. For example, if the pretax return of an investment project is 10 percent and the post-tax return 5 percent, the METR will be 50 percent  $((10-5)/10)$ . The pretax return is normally assumed to be 10 percent and this paper conforms to that standard. The post-tax return is then simulated given all tax rates and rules, and under the assumptions of non-arbitrage and general equilibrium. The METR is thus not simply an addition of corporate and owner-level taxation adjusting for inflation. It is a single digit measure that capture the whole impact of the tax system and economic conditions such as inflation, depreciating rate of capital, level of return and source of finance on the marginal effective taxation.

This paper utilizes the standard King-Fullerton framework for calculating the METR. The method is thoroughly presented and explained in Wykman (2019). How to

incorporate some historic special rules in the tax code is presented in Johansson et al. (2019).

#### **4.2. Assumptions**

Using the King-Fullerton model as explained in Wykman (2019) and considering the rules and evolution of the tax system as presented in Section 3, we can calculate the METR for industrial foundations, given new share issues, retained earnings and debt as sources of finance.<sup>31</sup> However, as always when using a model, some assumptions must be made.

The *corporate income tax rate* is straightforward to use when the corporate income tax system is proportional. We will use the top tax rate when the system is progressive (1903–1939).<sup>32</sup>

The *capital income tax rate* is first set to zero, as industrial foundations are exempted from paying tax on their capital income. This is in line with the analysis performed in earlier studies (Jorgensen & Landau, 1993; King-Fullerton, 1984 and, for Sweden, Södersten 1984, 1993).

However, industrial foundations are obliged to use the bulk of their capital income (less capital gains) for charity, as described in Section 3. This inflicts a cash flow effect that obstructs 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 personal capital income tax on dividends and interest. The cash flow effect has not been discussed or considered in previous analyses. To illustrate the impact on the incentives

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<sup>31</sup> In the King-Fullerton framework investments in machines, buildings and inventories are analyzed. In this study, we will analyse investments in machinery.

<sup>32</sup> Using, for example, the lowest or the average of the highest and lowest tax rates will not change our general conclusions.

to control firms through direct ownership or through industrial foundations, we will make a complementary calculation of the METR where the requirement to donate part of the return to charitable purposes is treated as a tax. Though 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.<sup>33</sup>

This complementary calculation requires an assumption regarding how large a share of its net income the foundation is obliged to donate. As described earlier, 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 that has to be used for charitable purposes during the whole period. Case law after World War II implies that, on average, approximately 80 percent of the net return has to be spent on charitable purposes; we will use this percentage in our calculations for the whole period.

The *wealth tax rate* is set to zero, as industrial foundations are exempted from 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, e.g., the Annell deduction, the investment funds, a special additional allowance given between 1976 and 1978 and in 1980, and the SURV (*skatteutjämningsreserven*, tax equalization reserve). Those will all in different ways lower the effective corporate taxation. The Annell deduction will, however, only reduce the corporate tax when new share issues are the source of finances. Between 1939 and 1951, immediate write-off was possible. Those rules and how they are incorporated are described in Johansson et al. (2019) and Wykman (2019).

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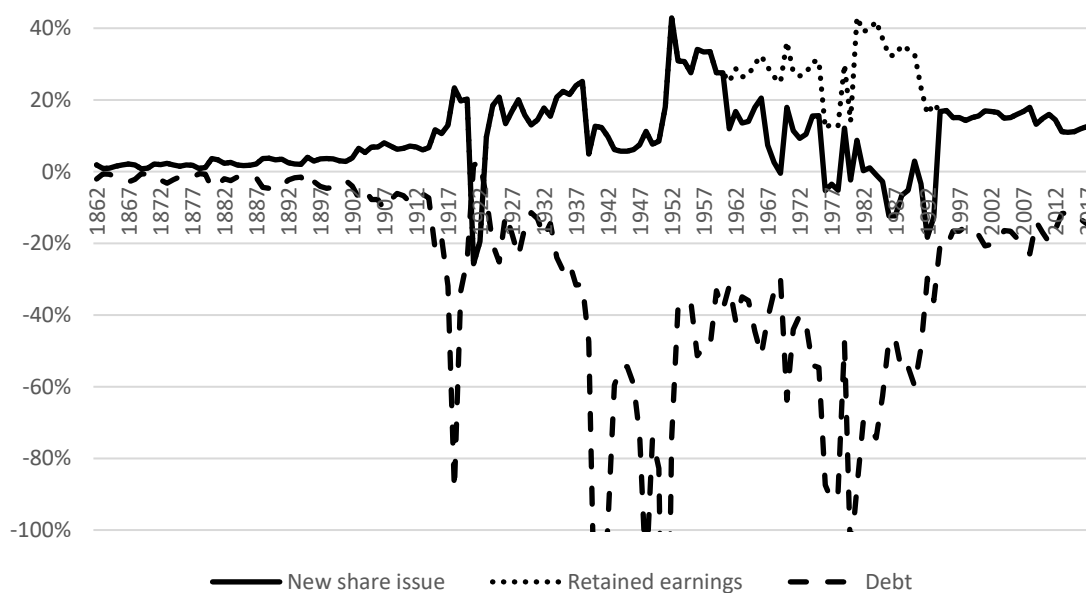
<sup>33</sup> A tax is formally defined as compulsory unrequited payments to general government.



### 4.3. Results

Figure 3 describes the METR with new share issues, retained earnings and debt as a source of finance.<sup>34</sup> The METR for equity financed investments was below 10 percent before World War I. It increased during World War I and in the interwar period. The top level was reached, with spikes exceeding 40 percent, during the 1950s. The METR for new share issues and retained earnings deviated between 1960 and 1993 because of the so-called Annell deduction, a tax credit given only to investments financed with new share issues. After 2012, the METR fluctuates between 10 and 15 percent.

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



*Note:* The figure is truncated, and spikes up to 200 percent are excluded to increase visibility

*Source:* Own calculation.

<sup>34</sup> As control is exercised through ownership, debt is a less relevant source of finance when it comes to private foundations. For completeness with previous analyses, the results for debt financing are shown.

The negative METR for debt financing is in line with findings of previous research (Södersten 1984, 1993) and is expected in a case with no taxation at the owner level in combination with deductible interest cost, write-offs and different tax credit at the firm level.

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 could be argued that this METR does not correctly capture the incentive effects and that it may be misleading. The requirement to donate the bulk of the net income to charitable purposes will have 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 including this cash flow effect. In the case of new share issues, the METR fluctuates mostly around 100 and 150 percent. There are also occasional spikes up to 200 percent.<sup>35</sup> 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 as long as the industrial foundation is allowed to reinvest the surplus. Including the donation requirement, the METR for new share issues increases substantially and is unfavorable as a source of finance compared to retained earnings. The difference between debt and new share issues is minor. Although the interest rate is deductible, the requirement to donate 80 percent dominates this effect, and the deduction only decreases the METR to a smaller extent.

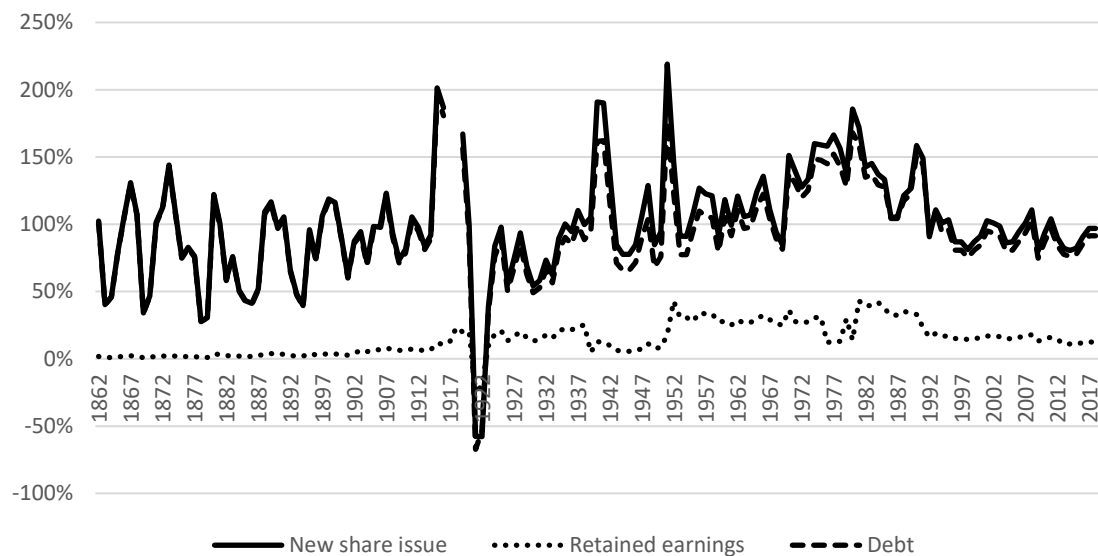
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<sup>35</sup> During World War I, the METR could exceed 300 percent, due to the very high inflation rate—which could be well above 50 percent—in combination with the requirement to donate the bulk of the net income to charitable purposes.

The favorable treatment of retained earnings over new share issues favors incumbent, well-established and mature firms, which historically has generated profits in contrast to new entrants which lacks 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 could be the case 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 than 80 percent and the company may not distribute the whole profit as dividends, but rather reinvest it. The METR will then be somewhere between the solid and dashed line.

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



*Note:* The METR is calculated assuming that the foundation has to pay 80 percent of its net income to charitable purposes. The figure is truncated, and extreme spikes during World War I are excluded to increase clarity.

*Source:* Own calculation.

## 5. Tax incentives for industrial foundations and direct individual ownership

A person or a family can control firms by personal ownership; i.e., they can personally own the stocks, or they can control firms through an industrial foundation; i.e., they can transfer the shares to an industrial foundation that they control. For a better under-

standing of the incentives for controlling firms through industrial foundations, it is necessary to compare the METR for industrial foundations with the METR of direct individual ownership (DIO). Since the major holdings of the influential foundations are listed firms, we will compare the METR for foundations with that for the owners of listed companies.<sup>36</sup>

This Section starts by comparing the METR for an industrial foundation with the METR for an owner of a listed firm, who pays the top marginal income and wealth tax (Section 5.1).<sup>37</sup> We also include a comparison of the METR when the negative cash flow from the requirement to donate to charitable purposes is considered. The inheritance and gift tax is not included in the METR. However, it affects the incentive to control firms through industrial foundations. This is discussed in Section 5.2.

### ***5.1. Comparison of the METR for industrial foundations and for direct individual ownership***

Figures 5–7 illustrate the difference in tax incentives between personal ownership and control through industrial foundations. In the case of new share issues (see Figure 5), there were non-existent or small tax incentives to exercise control through industrial foundations in the first 50 years of our study, and the cash flow effect provided clear negative incentives. The tax incentives to control firms through foundations became stronger between World War I and the tax reform in 1990–1991. The cash flow effect gave a weak negative incentive until the beginning of the 1940s, when increased

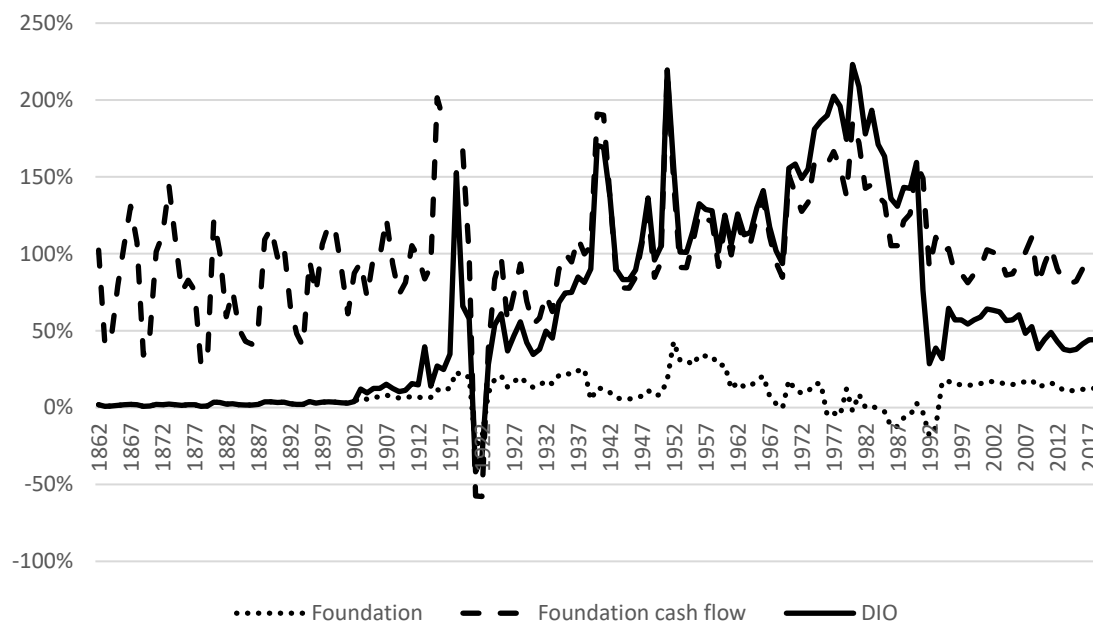
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<sup>36</sup> Special rules for closely held corporations were introduced in the 1990–1991 tax reform (e.g., Wykman, 2019). Calculating the METR for owners of closely held firms does not qualitatively affect our conclusions, and to avoid cluttering in the figures and for parsimonious reasons, we restrict the comparison to the owners of listed firm.

<sup>37</sup> The calculation disregards the 2003 tax exemption of dividends and capital gains on listed stock for holding companies with a voting or equity share of at least 10 percent. However, this does not affect the conclusions, it only makes the disadvantage of ownership through industrial foundations with charitable purposes even larger at the end of the period.

taxation on dividends neutralized the cash flow effect. Further increases in taxes on dividends gave cash flow incentives to use industrial foundations as a control vehicle during the late 1970s and early 1980s. After the 1990–1991 tax reform, the difference in the METR was heavily reduced, and the cash flow effect provided negative incentives to transfer ownership to industrial foundations.

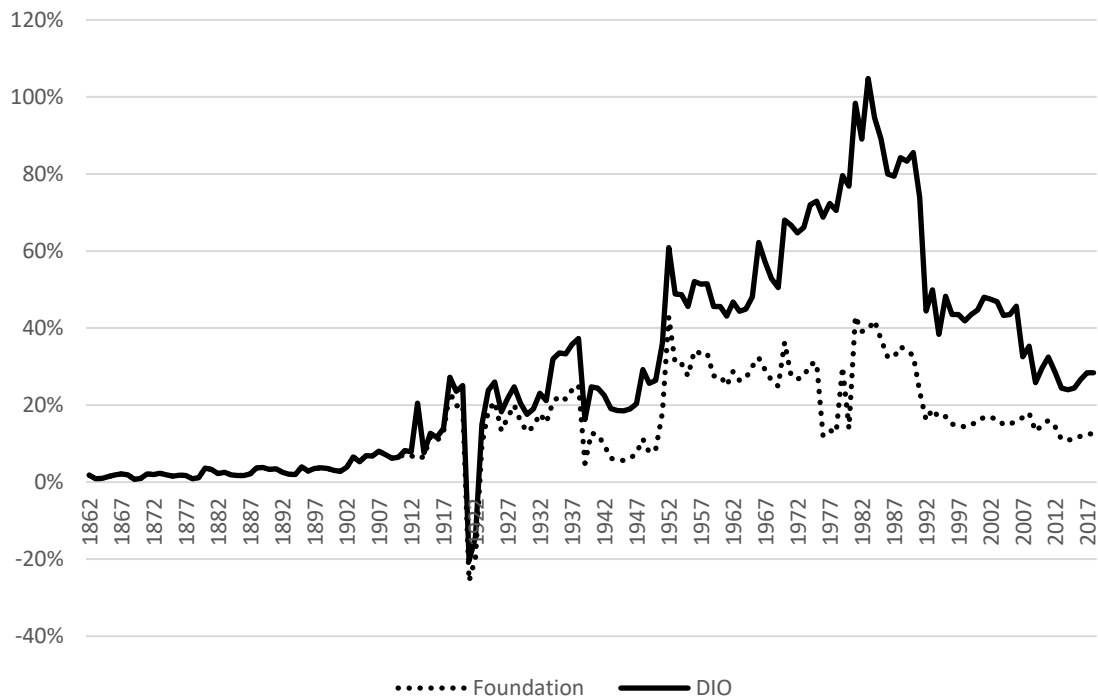
Figure 5. The marginal effective tax rate (METR), industrial foundations and direct individual ownership, new share issues, 1862–2018.



*Note:* Foundation cash flow considers the requirement that an industrial foundation has to donate the bulk of dividend income (80 percent is used in our calculations) to charitable purposes, which parallels the negative cash flow caused by dividend taxation. DIO refers to direct individual ownership where the owner faces the top marginal tax rates.

*Source:* Own calculations, Johansson et al. (2015) and updating.

Figure 6. The marginal effective tax rate (METR), industrial foundations and direct individual ownership, retained earnings, 1862–2018.



*Note:* DIO refers to direct individual ownership where the owner faces the top marginal tax rates.

There is no cash flow effect because industrial foundations do not have to redistribute capital gains to charitable purposes.

*Source:* Own calculations, Johansson et al. (2015) and updating.

In the retained earning case, incentives to use industrial foundations for control were non-existent or small until the mid-1960s because capital gains on long-term holdings were tax exempt for natural persons until 1966 (see Figure 6). The METR was therefore the same for industrial foundations and direct individual ownership until the introduction of the wealth tax, which somewhat increased the METR for personal ownership compared to foundations.

In 1966, when the taxation of natural persons' capital gains on long-term holdings was introduced, the METR began to diverge substantially, and the incentives to use industrial foundations as a control vehicle increased. The METR increased

further for DIO when the capital gains and wealth taxations were sharpened. The METR for DIO peaked in 1983 and decreased during the rest of the 1980s. Nevertheless, the tax incentives for using industrial foundations were high from the mid-1960s until the 1990–1991 tax reform, which substantially reduced the METR for DIO.<sup>38</sup> The abolishment of the wealth tax in 2007 further decreased the METR for DIO, and since then, the difference in the METR between DIO and the foundation has been approximately 10 percentage points.

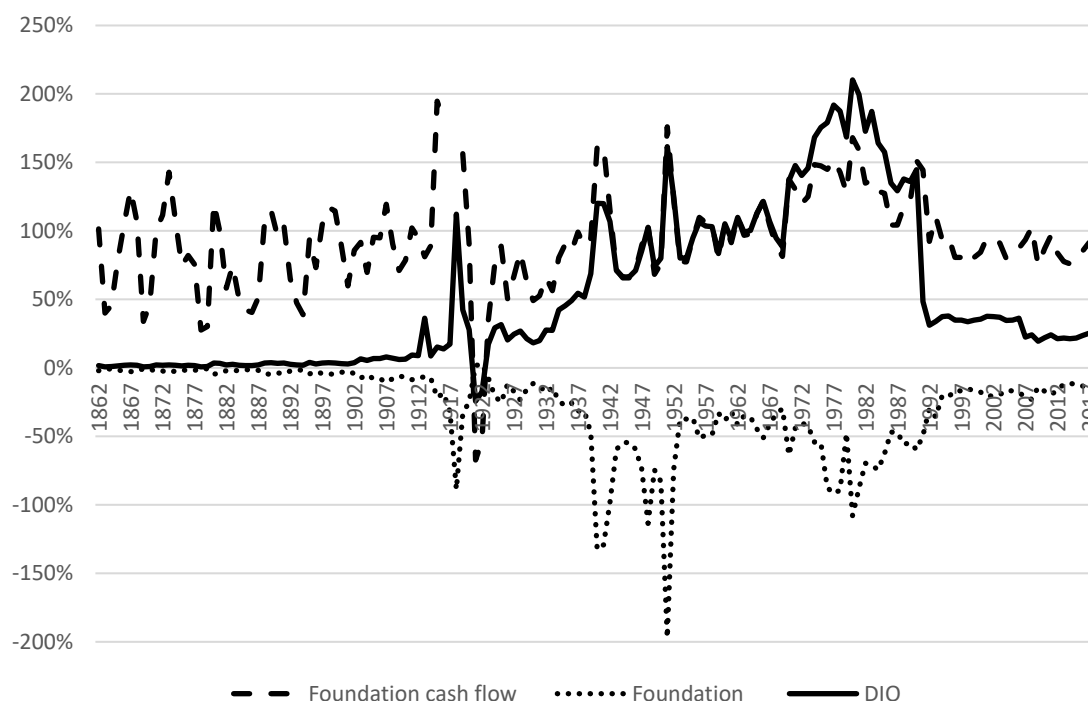
Finally, we turn to the debt case in Figure 7. As described in footnote 34 debt financing is of less relevance when analyzing industrial foundations since it is not related to exercise control through ownership. However, debt financing is an option and the analysis is included for completeness. Foundations had no tax advantage before World War I. After the War, particularly since the end of the 1930s and throughout the entire period until the 1990s, there was a strong tax incentive to use industrial foundations, ignoring the cash flow effect. The sharp spikes in the figures during World War I, for example, are due to inflation (and deflation) peaks. With higher inflation, companies will compensate the investor with a higher interest rate (which *ceteris paribus* reduces the METR), but they affect taxed versus non-taxed owners differently. If the nominal interest income is highly taxed, the rise in income will not be enough to outweigh the personal cost of inflation. Hence, tax-privileged owners will benefit from the higher interest rates companies have to pay when inflation is high.<sup>39</sup>

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<sup>38</sup> Lower inflation contributed to reducing the METR for high-impact entrepreneurs as well as for foundations.

<sup>39</sup> This is driven by the tax wedge between corporate and personal income taxation. If both taxes are zero, the inflation will not affect the METR. Generally, if the two taxes are equal, inflation will not affect the METR. However, when there is a difference between corporate and personal income taxation, inflation will raise or lower the METR. When the personal interest tax is higher than the corporate tax, a higher inflation will raise the METR. Since the corporate tax is deductible and payments are nominal, the company will raise its payments equal to the inflation pre-corporate tax; the owner will tax this nominal payment at a higher tax rate and, hence,

Figure 7. The marginal effective tax rate (METR), industrial foundations and direct individual ownership, debt, 1862–2018.



*Note:* Foundation cash flow accounts for the requirement that an industrial foundation has to donate the bulk of interest income (80 percent is used in our calculations) to charitable purposes, which parallels the negative cash flow caused by interest taxation. DIO refers to direct individual ownership where the owner faces the top marginal tax rates.

*Source:* Own calculations, Johansson et al. (2015) and updating.

Focusing on the negative cash flow, direct debt financing was tax favored within a structure of personal ownership compared to industrial foundations until World War II, when top marginal tax rates on interest income was increased. Further increases in the top marginal tax rates created cash flow incentives to use industrial foundations

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obtain a higher METR (since it is a real metric). If the corporate tax is higher than the personal tax, the opposite will be true.



during the late 1970s and early 1980s. The 1990–1991 tax reform sharply reduced the tax incentives for industrial foundations.

In sum, taking tax incentives and cash flow effect into account, personal ownership is preferable until World War I, regardless of the source of finance. During the interwar period, the results are mixed; industrial foundations were tax favored, but financing the investment with new share issues or debt brought about a negative cash flow effect. After World War II and until the 1990–1991 tax reform, the total effect from taxation, cash flow and source of finance favored control through industrial foundations. Tax and cash flow incentives generally favored personal ownership for controlling firms after the tax reform.

A complementary analysis is to decompose the true return on ownership into dividends and price changes on the underlying stocks, i.e., 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 market for the period 1870–2012 is, on average, approximately 40 percent (Waldenström, 2014), and we calculated the METR using this number (see Appendix C). This does not affect the conclusions regarding the incentives to use industrial foundations as a control vehicle.

As a final point, it is worth noting the relatively stable tax conditions for foundations compared to personal ownership. This could in itself be an incentive to transfer wealth to foundations. Comparing the development of the tax rules for foundations with those for personal ownership, it seems reasonable to assume that investors felt more confident that the tax rates for foundations would remain stable over time, while over a long period of time, other tax rates seemed to increase constantly.

## ***5.2. The inheritance and gift tax***

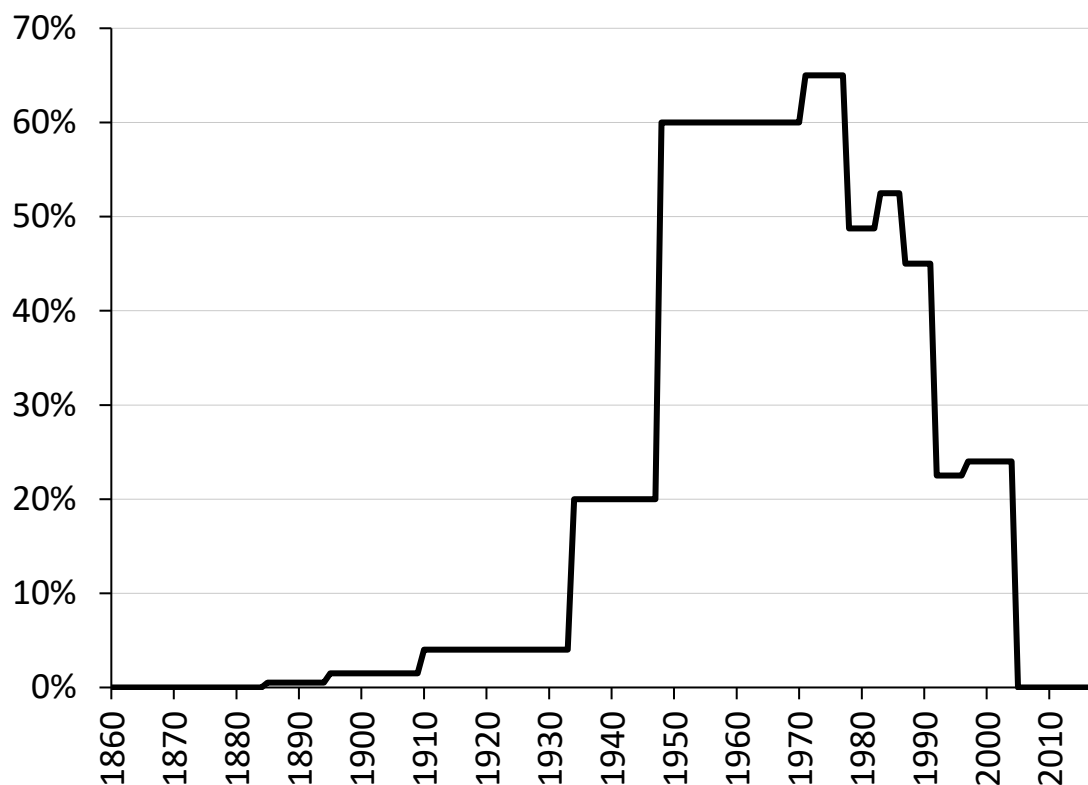
The inheritance and gift tax are excluded in the METR, but such taxes may impact the incentives to transfer the ownership of firms to industrial foundations. For instance, Schumpeter (1934, p. 93) was of the opinion that dynastic ambitions were a key incentive for entrepreneurs, which has been supported by current research, e.g., Gómez-Mejía et al. (2007). Our examination of the large influential family groups shows that dynastic ambitions are critical to understanding firm control. Descendants of the high-impact entrepreneurs that established the groups are still in control; e.g., the Wallenberg group is controlled by the fifth generation, the Ax:son Johnson group by the fourth and fifth, the Lundberg group by the second and third, the Douglas group by the second and the Schörling group by the second.

Modern inheritance taxation was introduced in Sweden in 1885. The tax system distinguished between different classes of heirs. Surviving spouse, cohabiter, children and descendants paid the lowest tax rates, while parents, siblings and others had higher tax rates (Du Rietz et al., 2015). Figure 8 shows the top marginal inheritance tax for shares registered on a stock exchange and for class I heirs (i.e., children, spouses and descendants). The tax level was modest, 0.5 percent, when the inheritance tax was introduced, but it increased over time. The top marginal tax rate was sharply increased to 20 percent in 1934 and to 60 percent in 1948. In the early 1970s, the tax rate peaked at 65 percent before the statutory tax rate started to decrease, and different forms of tax relief were introduced. The top marginal tax rate for publicly listed shares was halved to 22.5 percent in 1992, and the inheritance tax was completely abolished as of December 17, 2004.<sup>40</sup>

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<sup>40</sup> During the period 1978–1996, 75 percent of the market value was to be taxed, and during the period 1997–2004, 80 percent was. A valuation relief was introduced for small non-listed firms in 1971 to facilitate the takeover of family firms by heirs. In 1978, the relief became more

Figure 8. The top inheritance marginal tax rate for shares registered on a stock exchange, class I, 1885–2004.



*Note:* Class I includes children, spouses and descendants. During the period 1978–1996, 75 percent of the market value was to be taxed, and during the period 1997–2004, 80 percent was.

*Source:* Tax tables reproduced in Du Rietz et al. (2015).

High-impact entrepreneurs' wealth is mainly composed of their stocks. Heirs may therefore have to sell shares to pay the inheritance tax. They may then have to pay capital gains tax, which further increases the tax burden on inheritance.

Hence, the tax incentive to transfer the ownership of large firms to industrial foundations was strong for the period between the 1948 tax reform—when the top marginal statutory tax rate on inheritance increased sharply to 60 percent—and the 1990–1991 tax reform—when the top marginal statutory tax rate on inheritance for

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generous, and small firms were valued at 30 percent of the book net equity value. This rule was in force until the inheritance tax was abolished.

listed shares decreased sharply to 22.5 percent—i.e., for more than four decades. The transfer of capital to industrial foundations has also been common in connection with generational shifts after World War II to avoid inheritance tax (SOU 1968:7).

### **5.3. Discussion**

The influential family groups that used industrial foundations as a control vehicle were involved in high-impact entrepreneurship in Swedish industrialization, levelling off in the mid/late 19<sup>th</sup> century. The industrial foundations of major economic significance were established by these entrepreneurs or their descendants between World War I and the 1960s. Furthermore, the new family groups that currently have major influence in Swedish industry do not rely on industrial foundations as a control vehicle but prefer personal ownership. Our analysis helps to explain why.

There were no tax incentives to control firms by industrial foundations until World War I. The incentives gradually increased during and after the war because of increased taxation on personal capital income, wealth, inheritance and gifts. These taxes were raised to such levels after World War II that individual ownership of large firms by entrepreneurs was extremely unfavorable, as was the transfer of large firms to the next generation.<sup>41</sup> Firms that had grown large before the sharpened tax policy could still be kept under family control by transferring the ownership to an industrial foundation controlled by the family.

However, new successful firms could hardly be established and grow large during this tax regime. The high tax burden and the wage-earner funds made potential high-impact entrepreneurs leave the country if they wanted to realize their growth

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<sup>41</sup> This was a result of deliberate economic policy to convert companies to ‘social enterprises without owners’. It has been described as a policy aiming at a ‘capitalism without capitalists’ (Henrekson & Jakobsson, 2001; Johansson & Magnusson, 1998, p. 115–116).

ambitions and keep control over their firms.<sup>42</sup> Hence, there were basically no new large fortunes created by high-impact entrepreneurs domiciled in Sweden. Consequently, there was no substantial wealth that could be transferred to industrial foundations and provide the basis for the control of significant shares of Swedish industry. This helps explain why there were no industrial foundations of economic significance founded by new high-impact entrepreneurs or their families after World War II. It also helps to explain why no influential industrial foundations were established during the 1970s and 1980s. ‘Old’ families had already transferred their wealth to industrial foundations to safeguard control, and no new wealth had been created that could be transferred.<sup>43</sup>

The establishment of the still influential *Knut och Alice Wallenbergs Stiftelse*, *Axel och Margaret Ax:son Johnsons Stiftelse för allmännyttiga ändamål* and *Axel och Margaret Ax:son Johnsons Stiftelse* is of particular interest for our study. Knut A. Wallenberg (KAW) was a well-known philanthropist who had donated considerable sums to charitable purposes. According to himself, he established the foundation because he was ‘fed up’ with personally having to administer a large and increasing number of begging letters. By establishing the foundation, he could reject all proposals and refer all beggars to the foundation (Olsson, 2006).

Although not stated in his official motivation, it is plausible that he, as a most successful entrepreneur, also considered financial and tax issues. He and his wife, Alice, had no children of their own, and the closest heirs, his brothers, would have to pay higher inheritance tax than class I heirs. Olsson (2006, p. 342) also reports that Knut

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<sup>42</sup> The most well-known examples are IKEA (the founder Ingvar Kamprad emigrated in 1972) and Tetra Pak (the founder Ruben Rausing emigrated in 1969 and his two sons Gad and Hans in 1982). Fredrik Lundberg emigrated in 1985 but returned in 1993 after the 1990–1991 tax reform and the abolishment of wage-earner funds (Henrekson, 2005, 2017; Henrekson & Johansson, 1999; Henrekson & Stenkula, 2015; Heshmati et al., 2010).

<sup>43</sup> See Henrekson and Jakobsson (2001, 2005) and Henrekson (2017) for further discussion on the difficulties for entrepreneurs to grow companies large and create wealth after World War II, and particularly during the 1970s and 1980s.

had to pay 1.2 percent of his total wealth in tax in 1913, including the 1913 defense tax. The defense tax was designed to apply exclusively to very large incomes and fortunes (Söderberg, 1996, p. 11), in effect, targeting a few individuals controlling large parts of the Swedish industry. Surtaxes similar to the 1913 defense tax were levied in 1918 and 1919. KAW served as Minister of Foreign Affairs during the war, meaning that he was well aware of discussions of how to finance the war effort. According to Olsson (2006) and Du Rietz and Henrekson (2015, p. 273), he managed to avoid paying the 1918 and 1919 surtaxes and subsequent wealth taxes by donating the bulk of his fortune to the industrial foundation, *Knut och Alice Wallenbergs Stiftelse*. Hence, it does not seem too farfetched to argue that taxation was one reason for the establishment of the foundation.

The increased taxation, particularly that concerning inheritance, explicitly motivated the establishment of *Axel och Margaret Ax:son Johnsons Stiftelse för allmännyttiga ändamål* and *Axel och Margaret Ax:son Johnsons Stiftelse* in 1947 (de Geer 1998, p. 209ff.; Feldt, 2012).

The 1990–1991 tax reform, the abolishment of wealth tax on non-listed firm equity in 1991, the abolishment of wage-earner funds in 1992 (introduced in 1984), the abolishment of wealth tax in 2004 and the abolishment of inheritance and gift tax as from 2007 made the tax system more neutral. In fact, personal ownership is cash flow favored because industrial foundations have to distribute most of their capital income to charitable purposes. Moreover, controlling firms through industrial foundations implies that ownership of the firm has to be transferred from the entrepreneur to the foundation. There is also a lock-in effect; entrepreneurs can move from Sweden, while foundations cannot. In line with changed incentives, new influential family groups do not rely on industrial foundations as a control vehicle.

## 6. Concluding remarks

This study has described the evolution of tax rules for industrial foundations, calculated the marginal effective tax rate on capital income (METR) for industrial foundations and compared the taxation of industrial foundations with the taxation of direct individual ownership represented by a private owner owning a listed firm and paying the top marginal tax. 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, retained earnings or debt. The investigation covers the years 1862 to 2018.

Industrial foundations have been used by a few influential ownership spheres to exercise far-reaching control over Swedish industry. Currently, the industrial foundations controlled by the Wallenberg and Ax:son Johnson families still have substantial ownership stakes in Swedish industry.

Industrial foundations 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) to charitable purposes, which brings about a negative cash flow that reduces the ability to retain control over companies and parallels the capital income tax on dividends.<sup>44</sup> 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. As in earlier analyses, the donation requirement could be disregarded, but its lack of consideration could be misleading if there is an interest in understanding the ownership

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<sup>44</sup> The exact share that must be donated is not regulated in law, but custom that has evolved requires the donation of approximately 80 percent of the net capital income, excluding capital gains.

and control of Swedish industry. To illustrate the impact on the incentives to control firms through personal ownership or through industrial foundations, we therefore make a complementary analysis where the donation requirement is included in the METR calculations.

The analysis has shown that the METR was approximately the same for industrial foundations and for direct individual ownership for the first 50 years of our study. Taking the cash flow effect from the donation requirement into account, personal ownership was preferable. No foundations of economic significance were founded during this period.

Tax incentives for control through industrial foundations increased during and after World War I. After World War II, the increased capital income, wealth and inheritance and gift taxes made it difficult to keep and transfer large family firms to the next generation. Hence, industrial foundations had a tax advantage compared to direct individual ownership until the 1990–1991 tax reform. The increased taxation of dividend income also levelled the negative cash flow from the donation requirement. All of the influential industrial foundations were established between World War I and the 1960s by wealth originating from Swedish industrialization in the second half of the 19th century.

The tax policy between World War II and 1991 made it hard for new entrepreneurs to create substantial wealth through private enterprising. The threat from wage-earner funds, originally aiming at transferring private ownership to collective control, created further disincentives. High-impact entrepreneurs had to leave the country to be able to realize their growth ambitions. This helps explain why no major industrial foundations were established during the 1970s and 1980s. Wealth that originated before World War II had already been transferred to industrial foundations,



and little domiciled new wealth had been generated that could provide the basis for new influential foundations.

After the 1990–1991 tax reform, which profoundly decreased the capital income tax, the abolishment of the inheritance and gift tax in 2004 and the abolishment of the wealth tax in 2007, there were no tax incentives for high-impact entrepreneurs to control firms through industrial foundations. The donation requirement creates a negative cash flow effect compared to personal ownership. Using industrial foundations as a control vehicle also locks in capital in Sweden because foundations cannot move to other countries like individuals can. Taken together, industrial foundations have currently lost importance as a substitute for personal ownership in Swedish industry, and new family groups do not rely on industrial foundations as a control vehicle. To conclude, the taxation of industrial foundations versus personal ownership is one explanation for the rise of industrial foundations as a control vehicle of Swedish industry during the studied period.

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## Appendix A: Tax tables

Table 1. Marginal tax rates.

Year	Corporate tax	Interest tax	Dividends tax	Capital gains tax	Wealth tax
1862	3.0	3.0	0.0	0.0	0.0
1863	3.0	3.0	0.0	0.0	0.0
1864	3.0	3.0	0.0	0.0	0.0
1865	3.0	3.0	0.0	0.0	0.0
1866	3.0	3.0	0.0	0.0	0.0
1867	3.0	3.0	0.0	0.0	0.0
1868	3.0	3.0	0.0	0.0	0.0
1869	3.0	3.0	0.0	0.0	0.0
1870	3.0	3.0	0.0	0.0	0.0
1871	3.5	3.5	0.0	0.0	0.0
1872	3.0	3.0	0.0	0.0	0.0
1873	3.0	3.0	0.0	0.0	0.0
1874	3.0	3.0	0.0	0.0	0.0
1875	3.2	3.2	0.0	0.0	0.0
1876	3.5	3.5	0.0	0.0	0.0
1877	3.6	3.6	0.0	0.0	0.0
1878	4.0	4.0	0.0	0.0	0.0
1879	4.8	4.8	0.0	0.0	0.0
1880	5.3	5.3	0.0	0.0	0.0
1881	5.4	5.4	0.0	0.0	0.0
1882	5.6	5.6	0.0	0.0	0.0
1883	5.2	5.2	0.0	0.0	0.0
1884	5.3	5.3	0.0	0.0	0.0
1885	5.5	5.5	0.0	0.0	0.0
1886	5.9	5.9	0.0	0.0	0.0

Year	Corporate tax	Interest tax	Dividends tax	Capital gains tax	Wealth tax
1887	5.9	5.9	0.0	0.0	0.0
1888	5.8	5.8	0.0	0.0	0.0
1889	5.7	5.7	0.0	0.0	0.0
1890	5.6	5.6	0.0	0.0	0.0
1891	5.6	5.6	0.0	0.0	0.0
1892	5.7	5.7	0.0	0.0	0.0
1893	6.1	6.1	0.0	0.0	0.0
1894	6.9	6.9	0.0	0.0	0.0
1895	6.8	6.8	0.0	0.0	0.0
1896	6.0	6.0	0.0	0.0	0.0
1897	5.6	5.6	0.0	0.0	0.0
1898	5.5	5.5	0.0	0.0	0.0
1899	5.3	5.3	0.0	0.0	0.0
1900	5.4	5.4	0.0	0.0	0.0
1901	6.8	6.8	0.0	0.0	0.0
1902	7.0	7.0	0.0	0.0	0.0
1903	11.2	11.2	5.0	0.0	0.0
1904	11.2	11.2	5.0	0.0	0.0
1905	11.4	11.4	5.0	0.0	0.0
1906	11.4	11.4	5.0	0.0	0.0
1907	11.4	11.4	5.0	0.0	0.0
1908	12.2	12.2	5.0	0.0	0.0
1909	12.8	12.8	5.0	0.0	0.0
1910	12.3	12.3	5.0	0.0	0.0
1911	11.3	12.2	6.0	0.0	0.1
1912	11.4	12.3	6.0	0.0	0.1
1913	11.3	25.7	19.5	0.0	1.5



Year	Corporate tax	Interest tax	Dividends tax	Capital gains tax	Wealth tax
1914	11.6	12.5	6.0	0.0	0.1
1915	12.4	13.3	6.0	0.0	0.1
1916	11.7	12.6	6.0	0.0	0.1
1917	11.4	12.3	6.0	0.0	0.1
1918	17.0	29.9	23.0	0.0	0.4
1919	22.4	30.3	23.0	0.0	0.4
1920	31.3	33.3	33.3	0.0	0.5
1921	31.8	36.4	36.4	0.0	0.5
1922	31.9	36.5	36.5	0.0	0.5
1923	32.0	36.6	36.6	0.0	0.5
1924	32.3	36.9	36.9	0.0	0.5
1925	32.3	36.2	36.2	0.0	0.5
1926	32.3	35.0	35.0	0.0	0.5
1927	32.3	35.1	35.1	0.0	0.5
1928	32.2	33.8	33.8	0.0	0.5
1929	32.1	32.9	32.9	0.0	0.5
1930	32.4	33.1	33.1	0.0	0.5
1931	33.5	34.5	34.5	0.0	0.5
1932	34.1	38.5	38.5	0.0	0.5
1933	33.7	40.7	40.7	0.0	0.6
1934	34.3	42.2	42.2	0.0	1.1
1935	34.0	42.0	42.0	0.0	1.1
1936	34.0	45.4	45.4	0.0	1.2
1937	34.0	45.4	45.4	0.0	1.2
1938	37.8	47.3	47.3	0.0	1.2
1939	29.5	59.0	59.0	0.0	1.1
1940	39.5	65.4	65.4	0.0	1.2

Year	Corporate tax	Interest tax	Dividends tax	Capital gains tax	Wealth tax
1941	38.9	65.1	65.1	0.0	1.2
1942	40.4	72.0	72.0	0.0	1.3
1943	40.1	71.9	71.9	0.0	1.3
1944	40.1	71.9	71.9	0.0	1.3
1945	40.0	71.9	71.9	0.0	1.3
1946	40.0	71.9	71.9	0.0	1.3
1947	39.8	71.8	71.8	0.0	1.3
1948	45.9	72.9	72.9	0.0	1.8
1949	46.1	73.0	73.0	0.0	1.8
1950	46.0	73.0	73.0	0.0	1.8
1951	46.1	73.1	73.1	0.0	1.8
1952	47.5	73.8	73.8	0.0	1.8
1953	47.6	69.5	69.5	0.0	1.8
1954	47.4	69.3	69.3	0.0	1.8
1955	51.7	69.3	69.3	0.0	1.8
1956	56.2	69.3	69.3	0.0	1.8
1957	56.3	69.4	69.4	0.0	1.8
1958	56.8	69.8	69.8	0.0	1.8
1959	57.1	70.0	70.0	0.0	1.8
1960	48.8	70.1	70.1	0.0	1.8
1961	49.0	70.3	70.3	0.0	1.8
1962	49.1	70.3	70.3	0.0	1.8
1963	49.3	70.4	70.4	0.0	1.8
1964	49.9	70.8	70.8	0.0	1.8
1965	50.4	71.0	71.0	0.0	1.8
1966	51.0	71.4	71.4	17.9	1.8
1967	51.2	71.5	71.5	17.9	1.8

Year	Corporate tax	Interest tax	Dividends tax	Capital gains tax	Wealth tax
1968	51.6	71.8	71.8	17.9	1.8
1969	52.1	72.1	72.1	18.0	1.8
1970	52.6	72.4	72.4	18.1	1.8
1971	53.5	76.5	76.5	19.1	2.5
1972	54.3	77.8	77.8	19.4	2.5
1973	54.4	77.9	77.9	19.5	2.5
1974	54.4	78.0	78.0	19.5	2.5
1975	55.1	81.2	81.2	20.3	2.5
1976	55.7	83.2	83.2	33.3	2.5
1977	56.1	84.9	84.9	33.9	2.5
1978	57.2	86.7	86.7	34.7	2.5
1979	57.4	87.0	87.0	34.8	2.5
1980	57.5	85.0	85.0	34.0	2.5
1981	57.7	85.0	85.0	34.0	2.5
1982	57.8	85.0	85.0	34.0	2.5
1983	58.1	84.0	84.0	33.6	4.0
1984	62.2	82.0	82.0	32.8	3.0
1985	57.1	80.0	80.0	32.0	3.0
1986	57.1	80.3	80.3	32.1	3.0
1987	57.1	77.4	77.4	31.0	3.0
1988	57.1	75.6	75.6	30.2	3.0
1989	54.7	72.8	72.8	29.1	3.0
1990	47.8	66.2	66.2	26.5	3.0
1991	30.0	30.0	30.0	30.0	2.5
1992	30.0	30.0	25.0	25.0	1.5
1993	30.0	30.0	25.0	25.0	1.5
1994	28.0	30.0	0.0	12.5	1.5

Year	Corporate tax	Interest tax	Dividends tax	Capital gains tax	Wealth tax
1995	28.0	30.0	30.0	30.0	1.5
1996	28.0	30.0	30.0	30.0	1.5
1997	28.0	30.0	30.0	30.0	1.5
1998	28.0	30.0	30.0	30.0	1.5
1999	28.0	30.0	30.0	30.0	1.5
2000	28.0	30.0	30.0	30.0	1.5
2001	28.0	30.0	30.0	30.0	1.5
2002	28.0	30.0	30.0	30.0	1.5
2003	28.0	30.0	30.0	30.0	1.5
2004	28.0	30.0	30.0	30.0	1.5
2005	28.0	30.0	30.0	30.0	1.5
2006	28.0	30.0	30.0	30.0	1.5
2007	28.0	30.0	30.0	30.0	0.0
2008	28.0	30.0	30.0	30.0	0.0
2009	26.3	30.0	30.0	30.0	0.0
2010	26.3	30.0	30.0	30.0	0.0
2011	26.3	30.0	30.0	30.0	0.0
2012	26.3	30.0	30.0	30.0	0.0
2013	22.0	30.0	30.0	30.0	0.0
2014	22.0	30.0	30.0	30.0	0.0
2015	22.0	30.0	30.0	30.0	0.0
2016	22.0	30.0	30.0	30.0	0.0
2017	22.0	30.0	30.0	30.0	0.0
2018	22.0	30.0	30.0	30.0	0.0

*Note:* Interest rate, dividends rate, capital gains rate and wealth rate refer to the top marginal tax rates affecting an owner of a listed firm and are used to calculate the METR for direct individual ownership. Capital gains tax refers to long-term holdings (> 5 years) when applicable.

## Appendix B: Industrial foundations and family control – a detailed description

This appendix portrays the industrial foundations in Sweden in more detail. The government inquiry SOU 1968:7, the so-called concentration's inquiry (*Koncentrationsutredningen*), with the purpose of investigating ownership and influence in private industry, is a standard source of information.<sup>45</sup> In total, 17 ownership spheres that controlled one-third of the largest firms' capital in the early 1960s were identified in the inquiry. In combination with differentiated voting rights and so-called 'pyramid-building', several companies could be controlled with a relatively small amount of capital (Hagstedt, 1972). Their influence was therefore greater than what can be inferred from the percentage ownership of the total capital. In total, these ownership spheres controlled firms representing approximately one-fifth of total private employment, excluding banks and insurance companies.<sup>46</sup>

Fourteen of the spheres were family groups (identified group members in parentheses):

1. Wallenberg (Jacob Wallenberg, 1892–1980, Marcus Wallenberg, 1899–1982, and the latter's children)<sup>47</sup>,
2. Wehtje (descendant of Ernst Wehtje, 1863–1936, and their spouses),

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<sup>45</sup> It was a comprehensive inquiry directed by Guy Arvidsson, professor of economics. Among other things, four Ph.D. theses were based on the inquiry (Persson-Tanimura, 1988). Hermansson (1959) was one 'source of inspiration' for the inquiry. Hermansson later became the leader of the Communist Party (*Sveriges kommunistiska parti, SKP*).

<sup>46</sup> Total employment in private Swedish industry was reported to amount to 1 983 606 people (SOU 1968:7, Table 2.2., p. 48), and the Swedish employment in firms controlled by the spheres was reported to be 402 400 people (SOU 1968:7, Table 4.18, p. 154). Foreign employment is excluded in the reported numbers. The Wallenberg sphere was the largest, controlling firms employing approximately 150 000 persons in Sweden, followed by Industrivärden/Handelsbanken and Custos/Säfveån-Skandinaviska Banken, controlling firms employing approximately 60 000 people in Sweden.

<sup>47</sup> Jacob and Marcus were sons of Marcus Wallenberg sr, 1864–1943, who controlled *Knut och Alice Wallenbergs Stiftelse* after the death of his brother Knut A. Wallenberg (1853–1938).

3. Ax:son Johnson (Axel Ax:son Johnson, 1876–1958, his widow, his descendants and their spouses),
4. Klingspor (Carl Klingspor, 1847–1911, and his descendants and their spouses) and Stenbeck (Hugo Stenbeck, 1890–1977, his spouse and their descendants),
5. Mark (descendants to Knut J:son Mark, 1869–1958, and their spouses) and Carlander (descendants to Axel Carlander, 1869–1939, and their spouses),
6. Broström (descendants to Dan Broström, 1870–1925, and their spouses),
7. Bonnier (descendants to Karl-Otto Bonnier, 1856–1941, and their spouses),
8. Kockum (descendants to Frans Henrik Kockum, 1840–1910, and Carl Frans Henrik Kockum, 1878–1941, and their spouses),
9. Ericsson (Elof Ericsson, 1887–1961, his widow, his descendants and their spouses),
10. Åhlén (descendants to Johan Petter Åhlén, 1879–1939, and their spouses),
11. Kempe (descendants to Johan Carl Kempe, 1799–1872, and their spouses),
12. Söderberg (descendants to Olof Söderberg, 1872–1931, and their spouses),
13. Bergengren (descendants to Axel Bergengren, 1839–1901, and their spouses),
14. Edstrand (descendants to Hans Edstrand, 1855–1926, and their spouses).

Two spheres were management controlled, without the managers holding any controlling shares: Industrivärden-Handelsbanken and Custos/Säfveån-Skandinaviska Banken. Finally, the ‘Dunker sphere’ differed from the other spheres in the regard that it was controlled by Helsingborg’s city council and independent persons, after a donation from Henry Dunker (1870–1962).

The exercise of control was also investigated, and foundations were found to be the main controlling device in half of the ownership spheres. In particular, foundations were found to have been used to build and maintain a strong influence in the Swedish

industry by small groups of high-impact entrepreneurs and their families. The controlling foundations were as follows (the foundations promote charitable purposes when nothing else is stated; founding year is in parentheses):<sup>48</sup>

- The Wallenberg family: The control primarily rests on *Knut och Alice Wallenbergs Stiftelse* (1917) and on the smaller *Marianne och Marcus Wallenbergs Stiftelse* (1963) and *Stiftelsen Marcus och Amalia Wallenbergs Minnesfond* (1960). There are also a number of minor foundations in the sphere: *Jacob Wallenbergs Stiftelse*, *Särskilda fonden* (1960), *Stiftelsen för Rättsvetenskaplig Forskning* (1947), *Tekn. dr. Marcus Wallenbergs Stiftelse för utbildning i internationellt industriellt företagande* (1982), *Berit Wallenbergs Stiftelse* (1955), *Marcus Wallenbergs Stiftelse för Internationellt Vetenskapligt Samarbete* (1976), *Ekon. dr Peter Wallenbergs Stiftelse för Ekonomi och Teknik* (1996), *Stiftelsen för Ekonomisk Historisk Forskning inom Bank och Företagande* (1994) and *Ekon. dr Peter Wallenberg Stiftelse för Entreprenörskap & Affärsmannaskap* (2016).
- The Industrivärden-Handelsbanken sphere: *Svenska Handelsbankens Pensionsstiftelse* (pension foundation), *Svenska Handelsbankens Personalstiftelse* (personnel foundation), *Stiftelsen Oktagonen* (personnel foundation)<sup>49</sup>, *Svenska Handelsbankens Pensionskassa* (pension fund), *Tore Browaldhs Stiftelse* (1961) and *Jan Wallanders och Tom Hedelius Stiftelse* (1961).<sup>50</sup> *SCA och Essitys Personalstiftelser* (personnel foundation) and *SCA*

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<sup>48</sup> Foundations founded after the publication of the inquiry are included in the ownership spheres.

<sup>49</sup> A profit sharing foundation.

<sup>50</sup> Handelsbanken founded and financed *Tore Browaldhs Stiftelse* and *Jan Wallanders och Tom Hedelius Stiftelse* to honour their long-time commitment to the bank as CEOs and chairmen of

*och Essitys Pensionsstiftelser* (pension foundation) are usually included in the sphere.<sup>51</sup> All the foundations are controlled by management/employees.

- The Ax:son Johnson family: *Axel och Margaret Ax:son Johnsons Stiftelse för allmännyttiga ändamål* (1947). There is also a much smaller family foundation in terms of capital: *Axel och Margaret Ax:son Johnsons Stiftelse* (1947; family foundation). However, this foundation controls the majority of the investment company, Nordstjernan, which in turn controls the majority of the family's companies.<sup>52</sup>
- The Dunker sphere: *Henry och Gerda Dunkers Stiftelse* (1953), *Stiftelsen Henry och Gerdas Donationsfond Nr 1* (1962) and *Stiftelsen Henry och Gerdas Donationsfond Nr 2* (1962).<sup>53</sup>
- The Åhlén family: *Åhléns-stiftelsen* (1954).
- The Kempe family: *Stiftelsen J.C. Kempes Minne* (1936) and *Stiftelsen Seth M. Kempes Minne* (1941).
- The Söderberg family: *Torsten Söderbergs Stiftelse* (1960) and *Ragnar Söderbergs Stiftelse* (1960).
- The Ericsson family:<sup>54</sup> *Ollie och Elof Ericssons Stiftelse för Vetenskaplig Forskning* (1958) and *Ollie och Elof Ericssons Stiftelse för Vägfarande Ändamål* (1961).

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the board. Hence, the foundations were not founded by Browaldh's, Wallander's or Hedelius' private wealth.

<sup>51</sup> SCA was a company controlled by the Industrivärden-Handelsbanken ownership sphere. In 2017, SCA was split into two companies, SCA and Essity.

<sup>52</sup> *Helge Ax:son Johnsons Stiftelse* (1941) is also identified to the group (Sundqvist, 1985–2015).

<sup>53</sup> *Henry och Gerda Dunkers Stiftelse* (1953). *Stiftelsen Henry och Gerdas Donationsfond Nr 1* was administrated by Helsingborg's municipality (*kommun*), while *Stiftelsen Henry och Gerdas Donationsfond Nr 2* and *Henry och Gerda Dunkers Stiftelse* were originally administrated by six independent persons (SOU 1968:7, p. 130).

<sup>54</sup> Note, it was not Lars Magnus Ericsson who founded L M Ericsson.



The spheres Wehtje, Klingspor and Stenbeck, Mark and Carlander, Bergengren, Edstrand, Broström, Bonnier, Kockum and Custos/Säfveån-Skandinaviska Banken had no foundations, or their foundations were of minor importance for control.<sup>55</sup>

The capital transferred to the family-controlled foundations was chiefly shares in the family firm(s), which originated from entrepreneurs who were active during the Swedish industrialization in the mid-19<sup>th</sup> century. Knut Wallenberg (1853–1938), founder of *Knut and Alice Wallenbergs Stiftelse*, was the second-generation Wallenberg. His father, André Oscar Wallenberg (1816–1886), founded Stockholms Enskilda Bank in 1856, which is still under family control and has been critical for the Wallenberg group since its establishment. *Axel och Margaret Ax:son Johnsons Stiftelse för allmännyttiga ändamål* and *Margaret Ax:son Johnsons Stiftelse* were founded by Axel Ax:son Johnson (1876–1958), the second generation in the Ax:son Johnson family. In 1890, his father, Axel Johnson (1844–1910), founded the shipping company Nordstjernan, which later became an investment company and still is central for the control of the group. Henry Dunker's (1870–1962) father was one of the founders of Helsingborgs Gummifabrik AB in 1891. Henry Dunker developed the business successfully and was once estimated to be Sweden's richest person. He was co-founder of Trelleborgs Gummifabriks AB in 1905. *Åhléns-stiftelsen* was founded by the widow and children of Johan Petter Åhlén (1879–1939) in his memory. He was co-founder of Åhlén and Holm in 1899 (sole owner as from 1902), a mail-order company. *Stiftelsen J.C. Kempes Minne* and *Stiftelsen Seth M. Kempes Minne* was founded by Charlotte 'Lotty' Bruzelius (1855–1941) in memory of her father, Johan Carl Kempe, and her brother, Seth Michael Kempe. Johan Carl Kempe (1799–1892) was an entrepreneur

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<sup>55</sup> For instance: *Ingeborg och Knut J:son Marks Stiftelse* (1917), *Broströmska Stiftelsen* (1924), *Reinhold Edstrands och hans syskon Gunhild och Theklas Stiftelse* (1951), *Hugo Stenbecks Stiftelse* (1962) and *Sven och Dagmar Saléns Stiftelse* (1968).

whose business group became Mo och Domsjö AB after his death. Torsten Söderberg (1894–1960), founder of *Torsten Söderbergs Stiftelse*, and Ragnar Söderberg (1900–1974), founder of *Ragnar Söderbergs Stiftelse*, were grandsons of Per Olof Söderberg (1836–1881), founder of Söderberg & Haak AB (1866). Elof Ericsson (1887–1961) was the chief executive officer and later chairman of the board for AB Åtvidabergs industrier<sup>56</sup> (founded in 1922). Elof Ericsson became a major shareholder in the late 1930s.

### ***Old and new family groups***

In 2018, there were approximately 17,000 ordinary and collection foundations<sup>57</sup> (County Administrative Board, *Länsstyrelsen*). It has been estimated that approximately 90 percent of all foundations are private (SOU 2009:65). The vast majority of foundations are small.<sup>58</sup> Nevertheless, a few foundations control a large share of Swedish industry. Interestingly, the largest foundations are the same as those identified in SOU (1968:7). The foundations controlled by the Wallenberg and the Ax:son Johnson families stand out.

The Wallenberg foundations dominate and control or have a dominant influence over several of Sweden's most successful multinational firms. The Ax:son Johnson foundations also control or have a dominant influence on firms with substantial economic value. The Söderberg family controls Ratos, a listed investment company, via

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<sup>56</sup> Later FACIT, a world leading manufacturer of mechanical calculators.

<sup>57</sup> And an additional small number for personnel, pension and collective agreements foundations.

<sup>58</sup> We refer to the foundations controlled by the Wallenberg family as one foundation. We also include the holding company FAM AB, owned by *Knut och Alice Wallenbergs Stiftelse*, *Marianne och Marcus Wallenbergs Stiftelse* and *Stiftelsen Marcus och Amalia Wallenbergs Minnesfond*.

*Torsten Söderbergs Stiftelse* and *Ragnar Söderbergs Stiftelse*. The Dunker ‘sphere’ controls the listed company Trelleborg.

*Stiftelse Oktagonen* and *Svenska Handelsbankens Pensionsstiftelse* are important shareholders in Handelsbanken. However, as of 2015, the Industrivärden-Handelsbanken sphere is considered to be dissolved, as Fredrik Lundberg (1951–) has become a dominant owner in the former sphere companies.<sup>59</sup>

Fredrik Lundberg has successfully managed the heritage after his father, Lars Erik Lundberg (1920–2001), the founder of the Lundberg family group. The Lundberg family is perhaps the most prominent of the new family groups that have emerged and is challenging the Wallenberg family for the most influence in the Swedish industry.

In addition to the Lundberg group, there are a few more emerging family groups that have created substantial wealth: the Gustaf Douglas (1938–) family, the Melker Schörling (1947–) family, the Persson family (founded by Erling Persson, 1917–2002, and now controlled by his son, Stefan Persson, 1947–) and the Olsson family (controlled by Dan Sten Olsson, 1947–, son of the founder Sten A. Olsson, 1916–2013). Notably, the new family groups use personal ownership for control and do not rely on foundations.<sup>60</sup>

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<sup>59</sup> The other ownership spheres identified in SOU (1968:7) have disappeared or lost influence. The firms controlled by the Wehtje, Mark and Carlander, Bergengren, Edstrand, Broström, Kockum, Åhlén, Ericsson, and Kempe families were less successful, and these families are no longer regarded as ownership spheres. The Bonnier family has been and still is in publishing. Custos/Säfveån was dissolved by corporate activists in the 1980s. The Stenbeck and Klingspor group is the exception. The group has successfully transformed from investing in basic industry to investing in industries such as telecom and e-trade.

<sup>60</sup> The new family groups have also established foundations. *Familjen Erling Perssons Stiftelse* (founder of H&M) was established in 1999, *Lars Erik Lundbergs Stiftelse för forskning och utbildning* founded in 1996, *Lars Erik Lundbergs Stipendiestiftelse* founded in 1991, *Sten A. Olssons Stiftelse för Forskning och Kultur* founded in 1996, *Jane and Dan Olssons Stiftelse för Sociala Ändamål* and *Jane and Dan Olssons Stiftelse för Vetenskapliga Ändamål*. These foundations are too small to be primarily used for control. The Kamprad family founded *Familjen Kamprads Stiftelse* (founder of IKEA) in 2011. The family has emigrated from Sweden, and IKEA is controlled by foundations domiciled outside Sweden.

## **Appendix C: The mixed case**

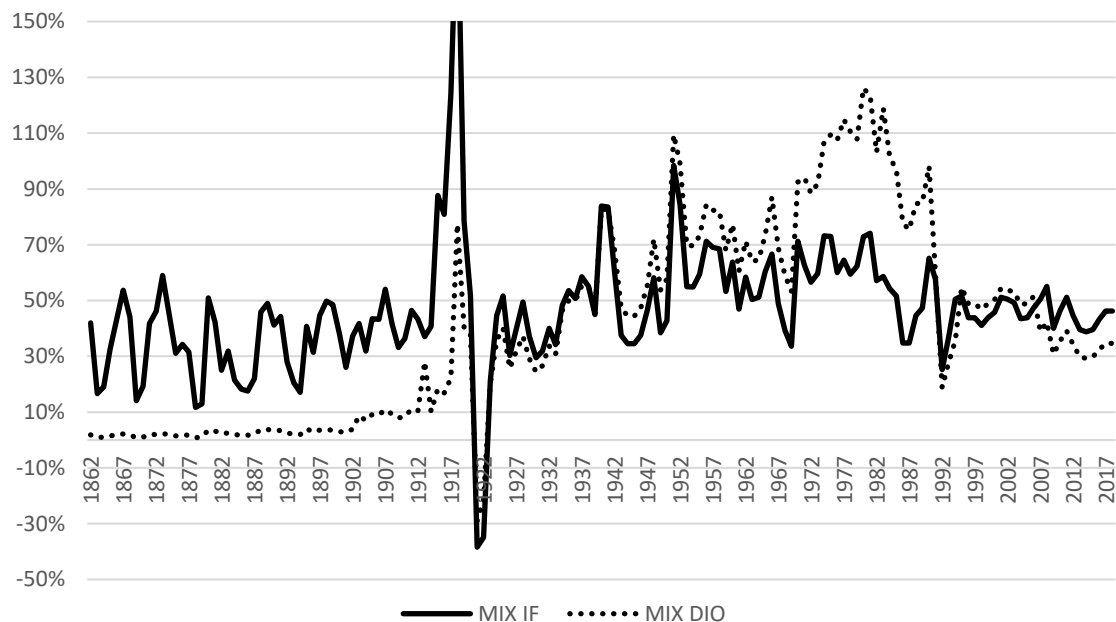
As described in the main text, one alternative way to illuminate how the tax system affects the return on investments made by industrial foundations is to decompose the return into dividends and price changes—or capital gains—based on the stock return on the public stock market and to use that as the basis for the analysis. The analysis based on this decomposition will show how industrial foundations would have been taxed if their stock return followed the average pattern on the stock market. The most influential industrial foundations have owned shares on the Swedish public stock market (see Section 2.1 and Appendix B). Estimations made by Waldenström (2014) show that the share of dividend yield for the whole period (1870–2012) is, on average, approximately 40 percent.

The METR for industrial foundations can be recalculated given that 40 percent of the return of the investment project is received as dividends and the rest as capital gains. As the formal tax is 0 percent regardless of whether the income is received as dividends or capital gains, the ordinary METR calculation will not change. However, in line with the discussion in Section 4.2, if we include the negative cash flow implied by the requirement to give away the bulk of the net capital income, we can calculate a new METR given the above assumptions.

Figure C1 shows the METR for new share issues given these assumptions. The METR fluctuates around 20–50 percent until World War II (ignoring the spikes). After the War and until the tax reform in 1990–1991, the METR fluctuates around 50–85 percent. After the tax reform, the METR decreases to approximately 40–50 percent. With these assumptions, the METR will be lower and not exceed 100 percent (ignoring the spikes during World War I), even if the negative cash flow from donating the bulk of the dividends to charitable purposes is included.

If this METR is compared to the METR of an investment made by an owner of a listed company where the return is divided in the same way, the result will mimic the result in the main text (see Figure C1). Personal ownership is favored until World War I. During the interwar period, the results are mixed, and the METR is approximately the same. After World War II and until the 1990–1991 tax reform, particularly during the 1970s and 1980s, the tax system, including the donation requirement, favors control through industrial foundations, but this is not the case after the reform.

Figure C1. The marginal effective tax rate (METR) for industrial foundations and high-impact entrepreneurs, 1862–2018.



*Note:* The METR is calculated assuming that the foundation has to donate the bulk of dividend income (80 percent is used in our calculations) to charitable purposes, which parallels the cash flow effect caused by dividend taxation. The calculations are made under the assumption that the stock return follows the average pattern on the stock market, i.e. that dividend yields accounts for 40 percent of the return and price changes (capital gains) for 60 percent. IF refers to industrial foundations and DIO to direct individual ownership.

*Source:* Own calculations.