This version: September 18, 2014

Industrial foundations in the tax system[1]

Abstract: This paper attempts to place industrial foundations (IFs in the following; similar to trusts) in the tax system. An industrial foundation is a private foundation that holds a voting majority in a joint stock corporation. These IFs are probably more prevalent in Denmark than in any other country, and the paper starts by reviewing some stylized facts and figures for IFs in Denmark. Thereafter, it recalls basic desires as to the structure and logic in the tax system and demonstrates how they lead to a system akin to the 'dual income tax' system which has inspired tax reforms in the Nordic countries and elsewhere. This system implies clear consequences for the taxation of different types of income, labor income and capital income. However, as the outline of the system is based on the premise that "people pay taxes", industrial foundations, having no personal owners, do not immediately fit in. So what to do? The paper explores the implications of treating IFs as high-income earners (wealthy individuals) and draws the conclusion that in the current system, IFs are very leniently taxed relative to that benchmark. Lenient tax treatment relative to the norm is regularly interpreted as tax expenditures; the usual recommendation for such indirect subsidies is to render them direct by transferring them from the revenue to the expenditure side of the budget.

Keywords: Industrial foundations, tax system, capital income taxation, donations

JEL: H20, H25, L38

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[1] This article was written as part of the research project "De danske Erhvervsdrivende fonde" (The industrial foundations Project) at Copenhagen Business School. For further information see www.Tifp.dk. Comments from participants in a Tipf conference and the 70th Annual Congress of IIPF in Lugano are gratefully acknowledged. Special thanks go to Daniel Reck, my discussant in Lugano.

Structure of the paper

1. Introduction

Industrial foundations (in Danish: 'Erhvervsdrivende fonde' and often abbreviated to IFs in what follows) are foundations which own business companies. They are independent legal persons *without owners or members*. They may carry out business activity within the foundation itself, or they may own a dominating share in industrial companies. For precision, we define industrial foundations here as follows:

An industrial foundation is a private foundation that holds a voting majority in a joint stock corporation.

Typically, at least bigger industrial foundations have been created by a successful businessman (or group of businessmen) who succeeded in growing a company to a large size. Instead of leaving equity in the company to heirs, the equity was placed in a foundation established for the purpose of running the company in the future and at the same time provide donations for common-good purposes (research, social projects, culture, etc.). Today's IFs are indeed typically characterized by the twin aims of monitoring designated business corporations and at the same time financing activities for the common good through donations. Some IFs further pay out distributions to family members of the (diseased) founder of the IF.

Industrial foundations can be found in many countries throughout the world, but nowhere do they assume a more important role than in Denmark.[2] International examples of comparable (big) industrial foundations or trusts would be TATA in India, Kavli in Norway, Bertelsmann in Germany, and Hershey in the US.

This paper considers how to encompass industrial foundations in the tax system. The prime disturbing fact is that industrial foundations produce (capital) income, but have no personal owners. Phrased in a more popular manner, they are 'headless capital'. Hence, the usual means of designing and evaluating a tax system in accordance with how individual persons are affected by the tax system will not work, and an alternative must be proposed. This is what we attempt to do in this article.

Before then, we shall argue that industrial foundations can be economically important. They certainly are in Denmark and also to some extent in neighboring countries. For instance, almost ten percent of private sector employment in Denmark is in foundation-owned companies, and the companies the IFs (co-)own represent the majority of the total market value of Copenhagen Stock Exchange. This is not least due to two internationally well-known foundation-owned concerns, namely Novo Nordisk, the world's leading insulin producer, and the shipping company AP Møller Mærsk. We look at some stylized facts of industrial foundations in Denmark, the current tax rules for foundations, and the tax payments on the part of industrial foundations and the companies they own in sections 2 to 4.

After that, we change direction and go through basic steps in designing a tax system as well as the implications for taxing capital income and for taxing corporations; this is done in sections 5 to 8. The subsequent sections 9 to 12 deal with how to possibly fit industrial foundations into the tax system in a more consistent way. We shall pursue the premise that IFs could be treated like high-earning, wealthy individuals. An argument for this is that the creators of the IFs were typically high-earning and wealthy individuals, and we also provide additional reasons for this choice. Further, income on the part of IFs can be characterized as capital income, whence a possible yardstick for the treatment of IFs in the tax system is the treatment of wealthy individuals' capital income.

[2] Thomsen (2013).

Compared to this, IFs are rather leniently taxed in today's tax system. Such lenient taxation can be perceived as a so-called 'tax expenditure'. Tax expenditures are losses of tax revenue due to some activities being taxed leniently as compared to the normal tax treatment of similar activity. Tax expenditures constitute indirect subsidies to the activity in question and tend to be hidden in the system. The question becomes whether that subsidization is appropriate, and whether it is carried out in the most appropriate manner. Section 13 concludes.

2. Industrial foundations in Denmark[3]

According to recent estimates, there are between 1300 and 1400 industrial foundations in Denmark; there are many other foundations but they do not carry out business activity. The number of IFs has been fairly stable over the last couple of decades, but before, in the decade 1985-95, the number shot up, as the creation of foundations constituted an important way of avoiding taxes, in particular inheritance and wealth taxes. Most industrial foundations are rather small, but a few are very large. In fact, the two biggest Danish corporations, namely the pharmaceutical company Novo Nordisk and the shipping company AP Møller Mærsk, are (co-)owned by industrial foundations. The 10 largest industrial foundations account for some 74 percent of total industrial foundation equity capital (book value), while the 30 (100) largest account for 85 (93) percent. So the size distribution is heavily skewed.

How big are industrial foundations relative to the total economy in Denmark? Using market values, the total value of listed foundation-owned companies was around 700 billion DKK in 2011, or some 54 percent of total market capitalization on Copenhagen Stock Exchange, CSE. (For comparison, Danish GDP amounted to 1783 bill. DKK or 240 billion Euro in 2011.) The share has increased markedly over the last decade, primarily because both Novo Nordisk and AP Møller Mærsk have experienced dramatic increases in their market values.

The 100 largest industrial foundation-owned companies employ some 300.000 people all in all, of which about 2/3 have jobs abroad. Roughly, the Danish industrial foundations stand for 5 percent of all jobs in Denmark, and 8 percent of jobs in the private sector. Firms owned by industrial foundations have grown more over time (measured by sales, value added, profits etc.) than other companies, implying that foundations have raised their economic significance. Company growth here means primarily organic growth, not growth via mergers and acquisitions. Another interesting fact is that industrial foundations are more stable – their probabilities of large job losses, sales losses, or deficits are significantly smaller than those for other firms. Some of the difference may be due to industrial foundations being found primarily in specific sectors, but further analysis yields evidence that foundation-owned companies ceteris paribus are less likely to cut jobs in downturns (Thomsen, 2013).

A highly interesting topic concerns the comparison of IFs and traditional shareholder groups as business owners. Traditionally, shareholders are thought to exert pressure on the management of companies they co-own in order to make sure that their investments are put to good use. It is difficult to imagine a similar pressure coming from an IF, or more specifically the board of the IF. Hence, one might expect IF-owned companies to feature lower profitability and shorter lives than traditional corporations.

[3] The stylized facts in this section are presented in Thomsen (2013).

It is not easy to pursue such questions empirically, in part because a few IFs are so dominant in Denmark. Preliminary investigations reported in Børsting et al. (2014) find a few differences between IF-run and other companies. Smaller gearing, greater survival rates, more persistency at CEO and board levels seem to characterize the IFs. Finally, especially the larger IF-run companies could well be more productive (and thus more profitable) than comparable non-IF-run firms. These are indications, so far; however, there are no signs of IF-owned companies being less efficiently run than other companies.

3. A sketch of tax rules for industrial foundations in Denmark[4]

A major tax reform was worked out in Denmark in 1985-87, and it took effect in 1987. The tax reform represented the first, albeit not fully-fledged, step worldwide towards the introduction of a dual tax system with separate taxation of labor income and capital income.

As part of the reform work, the tax rules for industrial foundations were also considered, and the Fondation Tax Law (FTL in the following) which came into effect also in 1987 was the result. The main principle instituted in the FTL was that industrial foundations were to be taxed as corporations. Taxable income of industrial foundations was to be computed along the lines of the Corporation Tax Law (CTL), albeit with some exceptions. Hence, there were many parallels in the FTL and in the CTL; furthermore, subsequent changes in the FTL have followed closely those of the CTL.

Prior to the FTL, industrial foundations had received very generous tax treatment in all areas which in a period had led to the emergence of many new foundations. Accordingly, the introduction of the FTL amounted to a strengthening of tax treatment of industrial foundations. All their income would now in principle be taxable, and the transfer of funds to foundations (via inheritances or gifts) would most often be subject to tax. However, foundations were conceded special deductions for common-good distributions, as we shall see below.

The introduction of the FTL served both a distributional objective (removing the opportunity to accumulate wealth in the foundation without taxation, as foundations before the FTL were not subject to tax on their capital income) and a fiscal objective (contributing to the financing of the big tax reform). It should also be seen as the tax law counterpart to the then recently introduced law defining regulation and oversight of the many foundations and associations in the Danish society. The taxation of the foundations themselves was not expected to yield much tax revenue.

While the parallel to corporations is one bearing principle in FTL, another is the principle that a foundation which lives up to its deed through donations should not be hit by taxation, while if the foundation instead of distributing its income accumulates it, it should be taxed. These considerations led to an opportunity to deduct distributions when the foundation declares its taxable income. Moreover, a foundation can further deduct 25 percent of its common-good distributions in order to consolidate its capital base. This rule is intended to ensure that a foundation which distributes its income does not dilute its wealth. Finally, non-common-good distributions such as payments to relatives of the establisher of the foundation can also be deducted, provided the recipient is liable to (Danish) income taxation.

[4] This section makes use of material in Loft (2014) and Nørgaard (2013, 2014).

One can distinguish between two main structures for industrial foundations. The simple one, prevalent among the smaller IFs, has the foundation carrying out its commercial operations within the foundation itself. On account of the deduction opportunities mentioned above, this model has the means to avoid taxation altogether, while at the same time building up or at least preserving the IF's capital base.

Imagine, as an example, an industrial foundation which earns an income of 100 through its own commercial operations. If it hands out 80 of this as common-good distributions in line with its statute, it may then deduct 80 when calculating its taxable income. Moreover, it can further deduct 25 percent of this, i.e. 20, as a capitalization deduction. Hence, taxable income will be brought down to zero, while the capital base is built up by 20.

The more complicated industrial foundation model is one, where the foundation owns a subsidiary which takes care of business operations. This subsidiary can be co-owned with private firms or individuals. In the simpler cases, the subsidiary does not own further companies. A so-called 'transparency rule' is in place to enable a foundation having a business subsidiary to enjoy the same tax treatment, as had it carried out its business activities within the foundation itself. For instance, in the example above extended by a subsidiary, the profit of 100 could have been earned by the subsidiary. If the amount were then distributed to the foundation, the subsidiary's taxable income would go down to zero. At foundation level, a donation of 80 and deduction for capitalization of 20 would likewise remove tax obligations there.

Further, the IF-owned subsidiary could itself be the parent company of a bigger concern with many entities. This latter model fits the biggest industrial foundations in Denmark. Such a structure would not gain much from the 'transparency rule', as this rule does not extend beyond the immediate subsidiary; only the distributions from the immediate subsidiary to the foundation can be tax-free at the subsidiary level. In fact, the conditions for using the transparency rule are rather stringent, and the bigger industrial foundations, not least the companies they own, do end up getting taxed, possibly double-taxed on some of the income (in the sense of both underlying companies and the foundation itself paying tax on the same part of its income).

Taking also into account that at least for the bigger industrial foundations a large part of their income is actually earned abroad, the effective average rate of tax on their income can be anywhere between 0 and the current Danish rate of corporation tax of 24.5 percent, or even beyond this rate.

4. What level of tax do they pay?

A recent investigation (Nørgaard, 2014) into tax payments on the part of industrial foundations in Denmark has contributed to the knowledge about foundations in the tax system. During recent years the industrial foundations have been accused of paying very little tax, considering their significant role in the Danish economy. In short, Nørgaard's examination of tax records of the 110 biggest industrial foundations and the companies they (partly) own reveals that very little tax is paid out of the foundations' non-business income, whereas the corporations owned by the foundations pay a substantial amount of tax.

The investigation covers six years, 2007-12. In this period, the industrial foundations on average had accounting profits of 38 billion DKK per year in their subsidiaries, whereas their own non-business income was of the order of half a billion. Considering incomes (and later tax payments) in subsidiaries and foundations themselves together, by far the largest part of foundations' incomes and taxes stem from their subsidiaries and not the foundation level. The large degree of concentration in foundations is also found here; 97 percent of all income and tax payments in the foundations (including their companies) are found in only 20 of the 110 foundations. As especially the bigger foundations are owners of truly multinational corporations, a big chunk of tax payments is made to foreign tax authorities.

The 110 foundations (including their companies) together paid a bit more than 8 billion DKK in taxes per year in the period 2007-12. This amounts to an average effective tax rate of just under 22 percent. This can be compared to the Danish corporate income tax rate of 25 percent in the period. For normal (accounting) reasons the two rates differ – we have juxtaposed accounting profits and tax payments from taxable income. Further, a good deal of accounting income is earned and taxed abroad at differing rates, and industrial foundations utilize, like prototype multinational corporations, international tax saving strategies.

To this should be added the special deductions mentioned above which industrial foundations can make in computing their taxable income. Especially deductions for donations towards the common-good (and for donations to personal tax payers who themselves are liable to Danish tax) as well as deductions for capitalization. It turns out that these deductions are not very important quantitatively. The capitalization deductions are just about not applied at all, while the deductions for donations only amount to about 1.7 billion DKK per year, resulting in only a tax loss of 0.4 billion DKK per year. The main picture therefore is that industrial foundations pay tax overwhelmingly via the companies they (co-)own, and that relative to their total income they pay tax at a rate just about corresponding to the corporate income tax rate.

Is this an appropriate level of tax intake from industrial foundations and their companies? To get some feeling for this, we find it necessary to go back to basic theory of taxation and attempt to fit industrial foundations without personal owners into the tax system. This is the theme for the next sections.

5. Basic theory of taxation[5]

Stepping back and starting afresh, it would appear to be desirable to tax people in line with their ability to generate income. Some phrase it as a desire to tax people's IQ, but there is, after all, no simple relation between IQ and the ability to generate income. Physiological and psychological elements as well as the existence of different types of intelligence disturb the relation. So let us stick to ability to generate income. If we could tax this ability, people with a certain ability level would be subject to a given level of tax. To which extent they actually exploited their ability to generate income would be an individual matter. They might prefer to work in circumstances which do not maximally exploit their ability; they might prefer leisure to higher or lesser degree; but in the end they would be liable to a given level of tax.

However, the ability to generate income is not observable and probably hardly known by the individual in question (IQ may be observable to some degree). Hence, we cannot tax the ability to generate income after all.

[5] The material in this and the next couple of sections draws on Nielsen (2013).

The hourly wage might be thought of as a reasonable proxy for the ability to generate income. But two factors get in the way. The first is that for one reason or another people may choose a job which pays them less than their maximum possible wage. The second is that usually tax authorities do not have access to information on the hourly wage, certainly not the effective hourly wage. As in the famous nonlinear income tax problem tax authorities only possess information on the product of the hourly wage and the number of hours put in, in other words (labor) income.

So in the end, people's labor income (wages, other fruits of labor effort) is what is available to tax authorities as basis for taxation purposes. Still, it is hoped that there is a reasonable link between that income and people's ability to generate income.

On this background, fairness and equity considerations call for redistribution via (labor) income taxation. This is accomplished by a progressive tax on labor income. Progression itself can be achieved by a deduction at the bottom and/or (usually and) increasing marginal rates of tax on labor income. In this way, the average rate of tax on labor income increases with income, fulfilling the criterion of progressive taxation.

These contemplations concerned the fruits of labor effort; income from capital has not yet entered the picture. The conclusion could be that to the extent that labor income reflects the ability to generate income, there is no reason to tax the income from capital, no role for capital income taxation. After all, capital income is merely income made possible by postponing consumption to a later point in time than when the underlying labor income was earned (and taxed).[6]

There are at least three further arguments for not taxing the return to capital, that is the return to savings out of previous labor income and the return to investments – quite apart from the fact that due to behavioral reactions such taxation is bound to be distortionary.

First, there is an equity argument. Consider two individuals with equal ability to generate income and also equal labor income streams throughout their lives. One individual is very impatient in her consumption behavior and consumes the income right away, saving nothing. In a situation in which both labor income and the return to savings are taxed, this individual would only pay labor income tax. The other individual is very patient in her consumer behavior, so saves over the first part of the life cycle out of earned labor income. The savings thus accumulated generate returns, capital income. With taxation of both labor and capital income, the individual altogether pays both labor income tax and capital income tax. Accordingly, the second individual pays higher total taxes over her lifetime than the first individual, even though their streams of labor income are identical. There is a priori no reason for punishing patient consumer behavior, so capital income taxation here is inequitable and unfair.

Second, famous research in dynamic macroeconomics/public finance claims that over the longer run there is, at least in the simpler dynamic settings, no role for capital income taxation. As the returns to savings are taxed again and again, distortions accumulate over time, corresponding to higher and higher tax burdens

[6] Strictly speaking, capital income also derives from gifts and inheritances; we come back to this below.

on consumption later in life. This fact generates a desire to bring capital income taxation towards zero over time.[7]

Third, while the preceding argument was derived in the context of a closed economy and for individuals with infinite lifetimes, it carries over to an open economy and also, under additional assumptions, to finite lives.[8] Moreover, in the small open economy with free mobility of capital, a (source-based) tax on capital income generated by companies turns out to become an especially distortionary tax on domestic employed labor. It is then preferable to substitute the implicit tax in the form of a capital income tax (corporate income tax) with explicit taxation of labor.

Summing up, the arguments for having no tax on capital income, or at least only a moderate tax, seem strong.[9] Conversely, though, there are several arguments for nonetheless bringing in taxation of capital income as part of the overall tax package.

First, the tax on labor income is likely to be non-optimal. The general message from tax theory is, then, that to the extent that taxes in the tax system cannot be optimal there are good reasons for supplementing them with taxes which at the outset may have less desirable characteristics – the general second best principle. In this way, capital income taxation may play a role as a complement to labor income taxation. For instance, if the labor income tax redistributes less than preferably, a capital income tax can help to the extent that people with relatively high labor income save disproportionately much out of their income.[10]

Second, while an ideal tax system might subject the fruits of labor effort to tax while exempting the return to savings/investment, this strategy may be undermined in some instances by reclassifying labor income as capital income. An example is a closely held corporation, where what could have been paid out as wages is retained in the company and later on shows up as a capital gain when the company (shares) is sold. This income shifting phenomenon may partly be counteracted by also subjecting capital income to tax.[11]

Third, an aspect of inequality can be recognized when individuals' inheritances (or gifts from parents) differ markedly. When some inherit a lot and others very little or nothing, lifetime opportunities will also differ. Capital taxation in the form of estate or inheritance taxes as well as gift taxes can reduce such inequality.

Fourth, the theoretical analysis referred to above (and in fn. 7) which showed that the rate of capital income tax will converge to zero has recently been found not mathematically watertight. In fact, under reasonable assumptions the capital income tax should stay significantly positive over time.[12]

[7] See Chamley (1986) and Judd (1985, 1999), for instance. Also note, however, fn. 12 below.

[8] Gordon (1986) as well as Razin and Sadka (1991) discuss capital income taxation in the open economy. McCafferty (1987) and others introduce finite lifetimes in the discussion of optimal taxation of capital income. Generally, a zero capital income tax rate with generational overlap requires age-dependent taxes.

[9] Somewhat disturbingly, Jones, Manuelli and Rossi (1997) and Reinhorn (2009) even show that neither capital income nor labor income should be taxed in steady state in a setting where labor income builds on previous investments in human capital.

[10] See Banks and Diamond (2010) and Conesa, Kitao and Krüger (2009), among others.

[11] Eventually, both corporate income taxation and individual taxation of capital gains can be rationalized this way. See Gordon and Mackie-Mason (1995) and Christiansen and Tuomala (1998).

[12] See Straub and Werning (2014).

6. Implications for the structure of the tax system

So, in the end a compromise tax system may encompass some capital income taxation, albeit presumably at a modest rate.[13] *Absent further considerations*, the rate would be flat and equal across all capital income types. Whereas labor effort is inherently tied to a given individual, capital or wealth can be moved around. Therefore, labor income is attached to an individual, whereas capital income can be transferred between individuals. Further, all saving or investment types should preferably be handled equally and consistently in the tax system, so that individuals' placement pattern could be determined without interference from taxation. These facts constitute an argument for a flat rate of capital income tax across all types of capital income.

Coupled with the progressive income tax, the resulting system in effect becomes the Dual Income Tax (DIT). DIT is exactly defined by the differentiation of labor and capital income and the coupling of a progressive tax on labor income and a flat-rate tax on capital income; in its purest version, the capital income tax rate would correspond to the lowest marginal tax rate on labor income.

The desirability of keeping labor income and capital income separate in the tax system follows from the contemplations above. Even though both types of income of course can be used to finance consumption and thus enhance consumption opportunities, the origins of labor and capital income are different and the behavioral responses to taxing labor income, respectively capital income, must therefore also be different (which in itself is an argument for differential tax treatment).

Moreover, as mentioned, the Dual Income Tax system, which has inspired the tax systems in the Nordic countries, enable the differential treatment of labor and capital income components. DIT represents a significant break-away from the previous reigning principle of income taxation, namely comprehensive income taxation. According to the latter principle, all income should be taxed in the same way, irrespective of the source of that income.

A further argument for the dual income tax can be given. In a tax system which does tax capital income (at a flat rate), labor income taxation should be subject to a progressive income tax in order to secure balanced (dis)incentives to accumulate financial, respectively human capital.[14] If labor income were taxed via a proportional labor income tax, and if the main cost of education is time spent (which otherwise could have been used to earn labor income), then setting time aside for education would lead to tax savings at the same rate as that applicable to the subsequent return to education. Accumulation of human capital via education would then effectively not be subject to tax. If, at the same time, capital income were taxed by a flat-rate tax, physical capital accumulation would be hampered, generating an imbalance in the tax treatment of accumulation of the two types of capital. This can be corrected by a progressive labor income tax.

[13] This is also the conclusion reached by Diamond and Saez (2011) as well as Jacobs (2013) in their surveys of lessons from optimal taxation for tax policy in practice.
[14] The argument can be found in Nielsen and Sørensen (1997).

7. The role of the corporate income tax

The conclusion above was that a desirable tax system, more precisely a desirable taxation of income, would imply separating capital income and labor income and subject labor income to a progressive schedule while keeping the capital income tax flat. Further considerations include an appropriate balancing of the taxes in the system; keeping an eye on international competitive pressures generally; and aiming for a simple tax system which can be administered and complied with. Finally, the implications of the entire tax system for distribution and fairness should not be neglected.

All observations really pertain to the tax treatment of individuals' decisions and hence the burden of taxes on physical persons. This is very much in line with the traditional saying in the theory of taxation that "only people pay taxes". The consequences of the tax system (in its entirety) should be gauged at the level of individuals.

This does not rule out, though, that taxes can also be paid by entities other than physical persons, on behalf of individuals.[15] One example of such a tax is the corporate income tax (henceforth CIT), levied on corporations.

Why might it desirable to include a CIT in the tax system?

There are multiple answers. First, as corporations collect funds to invest in buildings, machinery, intangible assets, etc. in order to undertake production activities, they eventually generate capital income. In principle, this capital income could, via information on which individuals own how big a share of the corporation be traced to the owners, who could then be subject to personal tax on their capital income. For large corporations, this apportionment of capital income could become a complicated process. A simpler solution is to subject the corporation itself to tax, as a representative of its owners. Hence, a first reason for the existence of the CIT is simply convenience and cost saving.

A second reason is that the CIT functions as a backstop to personal income taxation. Were it not for the CIT, some personal income might not be tracked to individuals, or it might be paid out with such delay that the effective tax on that income would only be small. An immediate CIT will make sure that that income is taxed at least to some extent.[16]

A third reason to have a CIT is that it is a mechanism to collect rents. Rents – supernormal returns to invested capital – may have several origins; imperfect competition, the exploitation of natural resources, or

[15] This strictly speaking is already the case for many taxes and excises. As an example, companies pay VAT to tax authorities when selling goods and services. VAT is actually a consumption tax, an indirect tax, whereas until now we have been discussing direct income taxation. The VAT may even be redundant under certain circumstances, cfr. the famous theorem by Atkinson and Stiglitz (1976). A close cousin to the labor income tax, a VAT may nevertheless enter the tax system, if income taxation is plagued by tax evasion different from evasion problems for the VAT (or if other assumptions behind the Atkinson-Stiglitz result, for instance regarding separability, do not hold).

[16] Gordon and Mackie-Mason (1995) argue that many aspects of the existing corporate tax law would seem quite sensible, if the primary role of the corporate income tax is to discourage income shifting between the personal and corporate tax bases, or between domestic and foreign subsidiaries.

the use of ideas may all generate rents.[17] Collection of such rents may be close to non-distortionary and thus may constitute a rather ideal tax.

Further reasons have been put forth. A fourth one is that the CIT may function as a benefit tax. After all, firms benefit from public infrastructure and other public support, and the CIT can, according to this view, be seen as a way to claim some of those benefits. However, the link between benefits enjoyed and CIT paid for any particular corporation will be very weak. A fifth reason for the CIT is that it constitutes a way to tax foreigners, especially on the location-specific rents they may enjoy from investing in the home country. How convincing this argument is depends on when and how foreigners became owners of domestic corporations.[18]

In any case, the CIT as normally specified can be seen as a tax on both the normal return to capital and the extraordinary return (or rent) on capital. In an open economy with mobile capital, the tax on the normal return will in part become a tax on domestic labor employed in production rather than a capital tax.[19]

Summing up, the role of the CIT is first and foremost as a convenient collection point for personal capital income tax and for tax on rents, as well as a backstop to personal taxation. A backstop for not only personal taxation of capital income, but also taxation of the fruits of labor effort, and thus the personal labor income tax.[20]

8. A parenthesis on the current tax system in Denmark[21]

A quick glance at the tax rules and tax system in Denmark reveals that the current situation is quite far from the principles laid out above.

The taxation of individuals' capital income is very uneven. At one end, imputed rent on housing (the value of occupying your own house) is merely symbolically taxed. This is caused by a low standard tax rate which has been undermined by the so-called 'tax freeze' instituted by the right-wing government in 2003. In addition, the return to pension savings in occupational or individual pension schemes is also very lightly taxed, at currently 15.3 percent.

The return to ownership of shares is more heavily taxed. First, with a corporate income tax of now 24.5 percent and subsequently by means of a dividend/capital gains tax. The latter has two rates, at 27 and 42 percent. The combined corporate and dividend tax rate for large dividend flows is therefore 24.5 + (.755 x

[17] A further and quite natural reason for supernormal returns lies in the heterogeneity of firms. At inception, the quality of a business idea may not be known. The average quality of firms that actually start up may correspond to a normal return to invested capital (with a premium for risk), but the variance of the quality may be large. Given this spread, low-quality firms cease to exist, leaving only firms with above-average quality and therefore above-normal returns later on. Their supernormal returns counterweigh the losses of the departed firms, so to speak.

[18] See the discussion in Alworth (2010) as well as Huizinga and Nielsen (1997).

[19] A recent paper, Serrato and Zidar (2014), finds the following incidence for US state corporate income taxes: Firm owners bear roughly 40% of the incidence, while workers and landowners bear 35% and 25%, respectively.

[20] See Gordon and Hausman (2010).

[21] For a characterization of the Danish tax system and its history over the last two and a half decades see Jacobsen et al. (2013).

4) = ca. 56 percent. Finally, interest payments on bonds (or loans) and bank accounts are included in the base for the tax on personal (net) capital income. No less than four rates are applicable; high negative capital income is deducted at the lowest rate (30 percent), high positive capital income is taxed at the highest rate. The latter rate in principle amounts to some 51 percent (will vary with the municipality in question). However, since the last tax reform of 2010 a ceiling on the effective tax rate on positive net capital income has been introduced; this ceiling was 45.5 percent in 2012 and has dropped to 42 percent in 2014. Taking into account that part of the interest on bonds is really compensation for ongoing (or expected) inflation, the effective real tax rate on bond interest payments becomes higher yet.

Despite the widely differing tax rates on capital income, the system does bear evidence of some balancing effort. The combination of corporate income tax and highest dividend tax rates is not too far from the highest tax rate on positive net capital income (ignoring the tax ceiling). And neither of the two is far away from the highest marginal tax on personal labor income (earned income) which is about 55 percent (again varying with municipality). All this is to prevent the re-declaration of incomes and concomitant income shifting.

9. How do industrial foundations fit in?

A conventional phrase in traditional tax theory is: ”only people pay taxes”. The underlying reasoning for this dictum is that companies may pay corporate income and other taxes, but in the end the taxes are borne by the owners of the company in question. All taxes can be traced back to individuals, and the incidence of those taxes should be gauged by deriving where (i.e. with which individuals) the tax burden effectively lies.

The postulate that only people pay taxes does not hold for industrial foundations, though – and also not for a series of other non-personal tax paying entities which are not owned by individuals. Industrial foundations may look like corporations, but then again these are in the end owned by individuals. And while corporations are tax subjects, this is only so because they constitute an effective medium of tax collection on behalf of their owners. Industrial foundations perhaps do not look like persons, but like individuals they are owners of companies, and the income they derive from these and other investments is (mainly) capital income.

So putting industrial foundations on par with corporations does not seem like a tenable solution to the question of fitting the IFs into the tax system. Instead, we shall in the next section entertain the idea of treating IFs the same way as high-earning, wealthy individuals.

10. A possible consistent tax treatment of IFs

The main reason for attempting to view an industrial foundation the same way as a high-earning, wealthy individual in the tax system is that an IF itself is the owner of the return to its capital. Further, the most important IFs have very high income, and a number of IFs have at their disposal considerable wealth. Finally, had the founder of the IF lived on (rather than pass away/establish the foundation), or had (s)he passed on the funds to relatives as gifts, such tax treatment of the income would probably have ensued.

A high-earning, wealthy individual is supposed to pay the highest tax on positive net capital income (interest income) or the combination of corporation income tax and the highest dividend/capital gains tax (income from shares in corporations). As we saw above, the highest tax on positive net capital income is now 42 percent on account of the tax ceiling, while the combined corporate and shareholder tax amounts to some 56 percent. An industrial foundation should therefore pay tax at the same level on its income, be it interest income or return to shares in companies it owns. Altogether, an effective tax rate on foundations' income should be around 50 percent.

There is actually an additional solid argument for taxing an IF at this level. Danish companies which compete with corporations owned by IFs must reckon with a cost of capital dictated by both the corporate income tax and tax on share income for the owners of those companies. These owners might very well be wealthy individuals. If competition between an IF and its competitors is to take place on a level playing field, the IF ought to be taxed in the same way as the ultimate personal owners of competing companies.

But then the IFs will be double-taxed on their income from companies? Yes, but the same holds for high-earning, wealthy individuals who own competing companies. This does not rule out that steps are going to be taken in the future to reduce the taxation of ordinary capital income and therefore the burden of tax on savings or on investments. For example, one can imagine taxing the normal return to capital either exclusively at the company level (as is the case in Norway today) or exclusively at the personal level (similar to the situation in Belgium today).[22]

Relative to the benchmark of taxing IFs as wealthy individuals, the current tax treatment of IFs, the main ingredients of which were laid out in section 3, is markedly more lenient. This is due to

- the single corporation-like tax treatment of the IF which carries out business activities within the IF itself

- the mechanisms to avoid double taxation (the 'transparency rule' described above)

- the deductions in taxable income for amounts distributed in accordance with the statutes (stated aims) of the IFs

- the'consolidation deduction'

- deductions for provisions (funds set aside for future distributions).

Whereas the transparency rule and the deductions for distributions and for consolidation are specific to IFs, the deduction for provisions is common for corporations, too. All the same, the latter work to lower the effective rate of tax on IF earnings.

In discussions of the tax treatment of industrial foundations in Denmark, a number of professionals working for IFs find the suggestion of taxing IFs like wealthy individuals awkward. They claim that as recipients of distributions from IFs in principle are liable to tax, the most appropriate way of viewing an IF is as an intermediary between a corporation and a taxable individual. However, far from all recipients of distributions actually do pay tax on the distributed amounts. A large chunk of distributions end up with research groups, charitable associations, etc. that are not liable to tax. Some distributions go to family

[22] For a discussion of some of these and other options we refer to Nielsen (2013).

members of the founder of the IF in question, and they are, of course, supposed to be taxed on the distribution, if they are Danish citizens. Just like all other receivers of gifts in the tax system.[23]

The debate on the proper way to view an industrial foundation will continue. While some adhere to the alternative view of treating an IF more or less as a corporation, this author finds it more natural to treat an IF as a wealthy, high-earning individual. This will be the premise for the next sections.

11. Lenient tax treatment and tax expenditures

The tax revenue loss caused by lenient tax treatment of a legal person or an activity as compared to the normal tax treatment for persons or activities is called tax expenditure. Tax expenditures abound in the tax system – it is not easy to find tax laws without a series of exceptions causing tax expenditures. It is estimated that total tax expenditures in Denmark amount to about 2.2 percent of GDP.[24]

The lenient tax treatment of industrial foundations can be perceived as a tax expenditure, too. The numbers we reviewed in section 4 concerning income and tax payments from industrial foundations and their companies can be employed to get an idea of the extent of tax expenditures involved against a yardstick of taxing IFs as high-earning, wealthy individuals.

In the period 2007-12, the average annual tax revenue coming from IFs and their companies amounted to 8.2 billion DKK. This can be seen against a total income IFs and the companies they own of on average 38.2 billion DKK. Had IFs been taxed like high-earning, wealthy individuals and thus been liable to a 50 percent tax or so, the resulting tax revenue would have been of the order of 19 billion DKK and thus more than double the actual amount paid in tax by the IFs. The tax expenditures and the implicit subsidies involved accordingly could be substantial. However, as we do not have information as to how big a part of the income of 38.2 billion DKK corresponds to taxable income in Denmark, and how big a share of the tax payments of 8.2 billion DKK is made to Danish tax authorities, we cannot pinpoint the exact size of the tax expenditure.[25]

The Economic Council in Denmark has repeatedly[26] recommended that implicit subsidies related to tax expenditures be either cut or converted to explicit subsidies. Tax expenditures often reflect a historic desire to concede preferential tax treatment to legal persons or activities, and the implicit subsidies were typically not meant to be permanent. However, such implicit subsidies have a tendency to stick, perhaps because they are less transparent than outright and direct subsidies which appear clearly on the expenditure side of the public budget.

Cutting out an implicit subsidy is the appropriate thing to do, if the reasons for conceding special treatment do not apply anymore. Converting to an explicit subsidy is, on the other hand, preferable, if an appropriate reason for a subsidy can still be found. Conversion to the expenditure side then implies annual discussion of

[23] Any wealthy individual can transfer money to common-good purposes, but disregarding a small exemption that does not lead to a tax rebate. So why should there be a rebate for industrial foundations?
[24] Tax expenditures in Denmark are treated in Terkilsen, Wegener Jessen, Poulsen and Larsen (2012).
[25] A guess would be 4-5 billion DKK.
[26] See for instance Economic Council (2001, 2008).

continuation of the subsidy when budget proposals are on the table. Thus, the subsidy would be taken off, when it is no longer relevant, unlike if it appears as a reduction in the tax intake on the income side of the public budget.

12. Conversion to direct subsidies, if relevant

Following this line of argument, the implicit subsidies associated with lenient tax treatment of industrial foundations should either be cut out or converted to explicit subsidies. In order to figure out which direction is the appropriate one we need to inquire about possible reasons for existing tax concessions to IFs.

One possible reason lies in the desire to give IFs the financial powers and incentives to distribute their earnings to research and social purposes, i.e. for the common good. An immediate reaction would be: Why could the public sector not distribute such funds to the same or similar purposes? That begs the question as to whether it is actually advantageous for the public sector and society as a whole to delegate responsibility for (and at the same time co-finance) assistance to research and social purposes to said industrial foundations?

If the answer to this question is not in the affirmative, the lenient tax treatment of IFs will be hard to defend. But if the answer *is* in the affirmative, an alternative model ought to be contemplated. According to that model IFs would be taxed in line with such high-earning wealthy persons' capital incomes, but at the same time explicit matching subsidies could be handed out from the government, when the IFs distribute their earnings.

The advantage of this alternative treatment would be that the IFs were then seamlessly fit into the tax system as a whole, and possible subsidies conceded to the IFs would then appear explicitly as transparent items on the expenditure side of the public budget.

13. Conclusion

In this paper we have attempted to view the taxation of industrial foundations in a larger perspective. Industrial foundations are quite important in Denmark, as they stand for nearly 10 percent of private sector employment, and the companies owned by the bigger industrial foundations represent more than half of equity value of the Copenhagen Stock Exchange. In regard to taxation the interesting feature of industrial foundations is that they have no personal owners; hence, no individuals are directly affected by the tax treatment of the foundations. Therefore, careful arguments are needed to place industrial foundations in a logical manner in the tax system.

To begin with we dug into the chief considerations behind the design of the tax system itself. From this inspection we derive some principles for consistent taxation of labor income, respectively capital income. These principles essentially conform with the dual income tax system.

The point of departure was the resulting tax burden of individuals with different capabilities to generate income. The logic was that every tax can, in its incidence, be traced to some individuals.

The industrial foundations which are in principle perpetual bodies do not conform to this logic. Unlike corporations they are *not* owned by any individuals, rendering it unclear how they could or should be treated in the tax system. An additional principle is therefore needed. We preliminarily suggested treating industrial foundations in the same way as high-earning, wealthy individuals would be treated in (an idealized version of) the tax system. This would imply taxation of capital income at the same level as such individuals, i.e. at a level dictated by the personal tax on net capital income and by the combination of corporate income tax and the personal dividend/capital gains tax.

Relative to this tax treatment industrial foundations today are rather leniently treated. The tax rules for industrial foundations are complicated, but there is no doubt that the effective tax on their capital income lies below that stipulated for high-earning, wealthy individuals. Indeed, a recent investigation reports that the average rate of tax on the industrial foundation incomes is only around 22 percent. To the tax economist, such lenient treatment relative to a norm produces a so-called tax expenditure. Stated differently, the lenient tax treatment corresponds to an implicit, or indirect, subsidy to industrial foundation activity.

Implicit tax subsidies related to tax expenditures are not as transparent as direct subsidies on the expenditure side of the public budget and tend to get stuck in the system on account of lower visibility. Thus, economists regularly recommend that indirect subsidies be converted into explicit subsidies on the expenditure side. Or, if no substantial reason for the subsidy can any longer be offered, simply cut out.

Following this logic, it is time to convert the tax expenditures corresponding to today's lenient tax treatment of industrial foundations to direct subsidies. For example, the industrial foundations could be subject to similar tax treatment as high-earning, wealthy individuals, but at the same time they could be offered matching public subsidies when they distribute their earnings to ends which can also be recognized by the public sector. This solution may cause a higher government take from industrial foundation earnings, but it does not need to severely restrict them in their pursuit of aims in line with their statutes.

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