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# **Fiscal incentives and the choice of organization form in the Netherlands**

## ***being self-employed versus owner of a small corporation***

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# Fiscal incentives and the choice of organization form in the Netherlands <sup>\*</sup> - being self-employed versus owner of a small corporation -

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## Abstract

This paper studies the impact of fiscal incentives on the choice of organizational form. To determine the fiscal incentive we construct the alternative **before-tax** income and simulate the tax incentive. We carefully assess the tax schemes applicable for both owners of small corporations (*dga's*) as well as self-employed (*ib-ondernemers*) and calculate the expected **after-tax** income in both options. We find a positive correlation between after-tax income and the probability to switch, although the effects are rather small and only explain a small part of the variation. Non-fiscal factors are important as well. The tax scheme for *dga's* provides them with several margins to adjust their income. We find that they shift income over time by postponing dividend. **Keywords:** Self-employment, income taxation, incorporation

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# 1 Introduction

The share of self-employed in total employment has increased from 11% to 15% between 1999–2012 in the Netherlands (OECD, 2016). This is remarkable compared to the stable shares over time in other countries. Moreover, the changes in the tax incentives of the self-employed affect the occupational choice. For these reasons, the fiscal regime for self-employed has received a lot of attention in policy debates and it is the object of many expert committees (IBO ZZP, Van Weeghel, Van Dijkhuizen). The new coalition agreement also contains changes in personal and corporate income tax, dividend tax and self-employment deductions.

The self-employed is quite a heterogeneous group including both owners of small corporations (*dga's*) as well as unincorporated self-employed or sole proprietorships (*ib-entrepreneurs*). This paper studies the choice between these two groups. They face different tax burdens which is the main focus of this paper. Other factors are preferences for risk-bearing and access to capital funding. This paper adds to the literature on fiscal incentives for Dutch self-employed (Rijksoverheid (2015), SEO (2017)) by using new longitudinal taxdata for *dga's* and *ib-entrepreneurs* between 2007 and 2014.

There is scarce empirical evidence on the impact of *tax incentive* on the choice of the organizational form. One of the exceptions is paper by Edmark et al. (2013) who find a strong response to the tax incentives in Sweden. On the contrary, there is a vast literature on differences between the characteristics of self-employed and wage-employed. Successful self-employment is sometimes characterized by the notion "Jack-of-all-Trades", because more than wage employees self-employed benefit from combining different cognitive and soft skills (Hartog et al., 2006). Recent research for the US has shown that owners of small corporations and unincorporated self-employed differ vastly in their personal characteristics (Levine and Rubinstein, 2016). Unincorporated self-employed are less often successful than owners of small corporations. The researchers attribute this to abilities already present at youth and conclude that at the start of their business there is a clear distinction between the two types. In that case tax incentives matter less.

The tax system potentially incentivizes not only the choice for organizational form of the firm but, under certain conditions, also the profit level. The tax scheme provides both groups with several margins to adjust their profits such as using deductions or loss offsets. On top of this, *dga's* are able to shift income over time by postponing dividend, which they frequently do (Bettendorf et al., 2017). All these behavioural responses matter for the welfare costs associated with taxation.

This outline of this paper is as follows. We start with a description and visualization

of the fiscal incentives in Section 2. Section 3 explains the empirical approach. In Section 4 the results are given and Section 5 concludes.

## 2 Institutional background

The tax scheme for *ib-ondernemers* is straightforward (Figure 1, left). Taxable profit is taxed similar to wage earnings in box-1 of the personal income tax, which has a progressive structure. Two specific tax deductions for *ib-ondernemers* exist that lower taxable profit. The first is an income dependent exemption (in Dutch: *zelfstandigenaftrek*) and the second is an exemption rate (in Dutch: *MKB winstvrijstelling*).<sup>1</sup> In comparison to other countries, these deductions are unique as they are unconditional. They reduce taxable income without the need for expenses incurred in generating that income (OECD, 2015).

The tax scheme for *dga's* is more complex as a result of the double taxation, i.e. they are taxed in the personal income tax scheme and in the corporate income tax schedule (Figure 1, right). First, they pay personal income tax on a certain wage income. Since this tax has a progressive rate, there is an incentive to lower self-declared wage income. In limit this, the Dutch system features some rules concerning the wage of the *dga* (Bettendorf et al., 2017). For instance, the wage should not be lower than that of the best-paid employee, and should be comparable to the wage of other directing-managers performing similar tasks. The minimum legal requirement equals 45,000 euro in 2017.<sup>2</sup> Second, they pay corporate income tax on taxable corporate profit. The base is the profit minus the wage *dga* plus several other deductions, e.g. pension reservation, loss offsets and investment deductions. The corporate income tax equals 20% up to 200,000 euro and 25% on higher profits. After payment of the corporate income tax, the *dga* can choose to distribute dividend and pay a proportional box-2 tariff of 25% or retain profit.

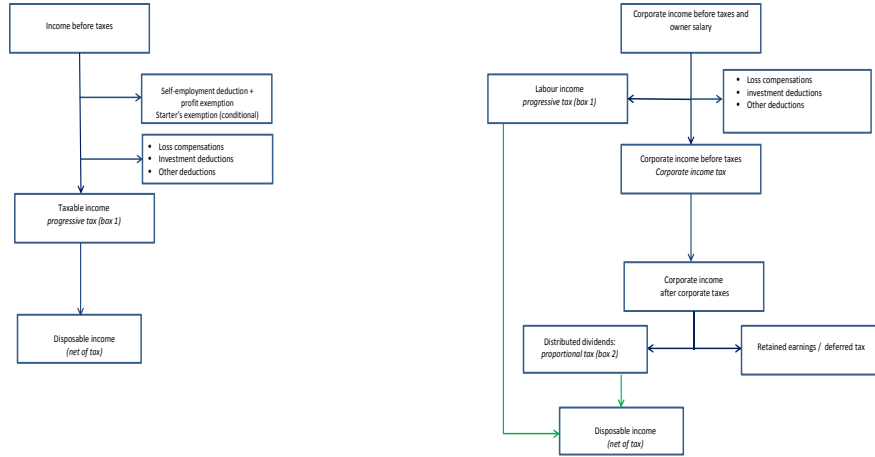
As a consequence of the double taxation, the tax system provides the *dga* with more incentives and opportunities for income shifting and tax avoidance than *ib-ondernemers*. They can opt for intra-temporal income shifting by shifting to some extent between wage income and corporate income tax and inter-temporal income shifting by retaining profits within the company.

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<sup>1</sup>A complete overview is given in Rijksoverheid (2015)

<sup>2</sup>In reality, this corresponds to a *perceived* minimum legal requirement, as this amount is the thresholds below which the responsibility of proving the adequacy of this wage incurs to the *dga*. As *dga's* tend to treat this as a *de facto* legal minimum we ignore this precision.

Figure 1: Tax schedule for ib-intrepreneurs and dgas



## 2.1 Simulation

To analyze the effects of these different tax rules on choice of organizational form we have built a simple simulation model.<sup>3</sup> This simulation model enables us to calculate the average tax rates for each income level for each type of organizational form (see Figure 2). Since assumptions on the wage dga and dividend determine the tax burden, we employ four different scenarios with different wages and dividend payments and their effect on the break-even-point (see Figure 3). First, we assess the impact of wage dga. In the first scenario, we assume that wage of the dga is a function of profit with a minimum of 45,000 euro. For each extra euro of profit, we assume that 15 eurocents is paid as wage dga. In the second scenario we keep the wage dga constant at 45,000 euro, which is the legal minimum requirement. A comparison of the two top rows shows that the average tax rate for dga with higher profit is lower once the wage is fixed, whereas it is constant once the wage grows with profit. This is straightforward. As soon as the wage dga is taxed at a higher rate than dividend, a higher wage share will increase the average tax rate. Second, the impact of dividend is analyzed and visualized in Figure 4. Postponing dividend lowers the average tax rate and makes incorporation more attractive at lower levels of profit. The break-even-point reduces from 140,000 to 70,000 euro.

<sup>3</sup>Stata code available upon request

Figure 2: Simulation 2017

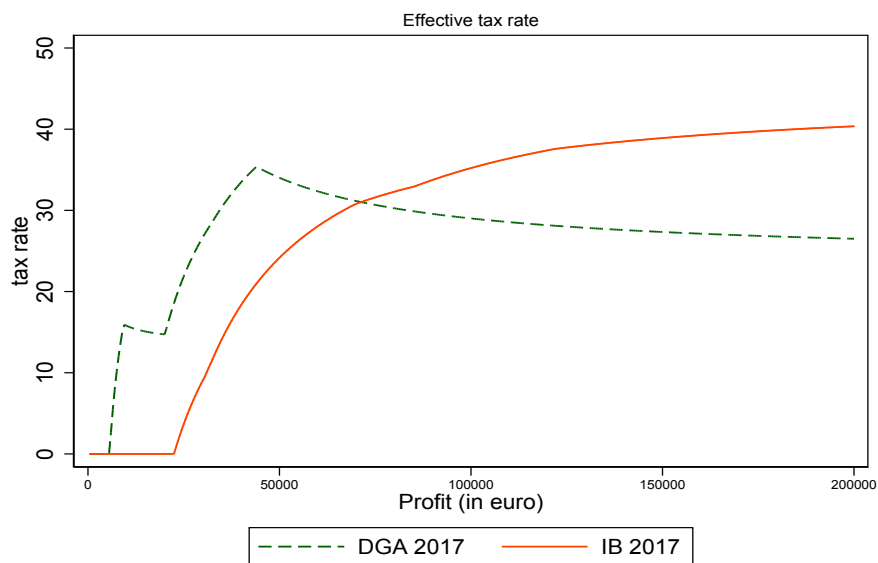
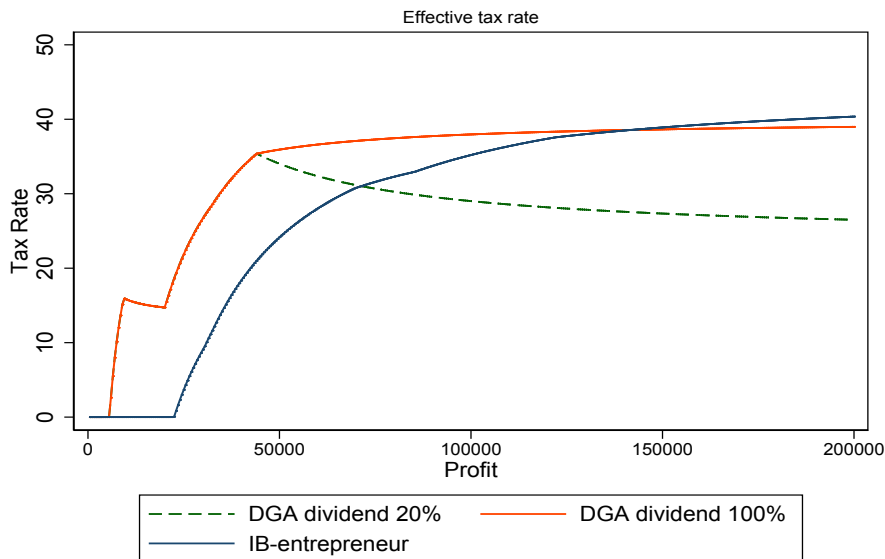


Figure 3: Different scenarios dividend and wage dga 2017



Notes: The figure plots the tax rates in four scenarios. The top figures show the case where dividend is set at 20% and wage dga is either a function of profit (top left) or set at the legal minimum (top right). The bottom figures set the dividend at 100%.

Figure 4: Different scenarios dividend 2017



## 2.2 New coalition agreement

The new coalition agreement (Rutte III) changes the tax system for wage employees and all entrepreneurs. In the personal income tax the introduction of a system with two tax rates (37% and 49.5%) increases net income as the top rate is lowered by 2.5% and the lower tax bracket is extended to 68,000 euro. All tax exemptions such as the profit exemption and self-employment deduction can be deducted against the lower tax rate. This has a negative effect on net income for higher-earning self-employed.

At the same time, the corporate income tax rates are lowered by 4%. To keep a fiscal balance between owners of small corporations (who pay lower corporate tax) and unincorporated self-employed the government increases the box-2 tax on dividend paid to the owner of a small corporation from 25% to 28.5%. The effect on average tax rates is plotted in Figures 5 and 6. Two things are noteworthy: (1) the increase in box-2 tax rate has little effect on those dga's that only pay 20% dividend and therefore the difference between dga and ib-ondernemers has become larger; (2) due to the lesser deductibility of self-employment deductions the tax rate for ib-ondernemers increases after 68,000 euro.



Figure 5: Coalition agreement (2023) and 2017, 20% dividend

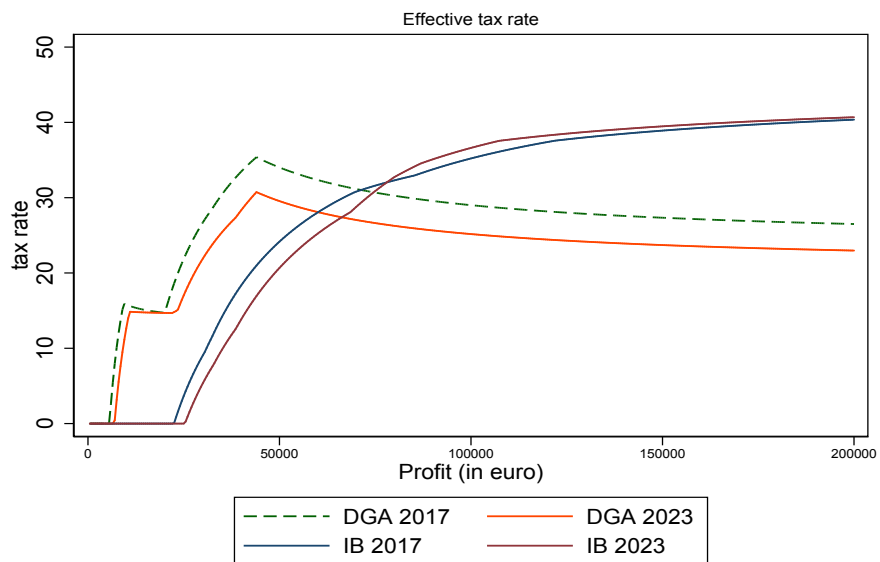
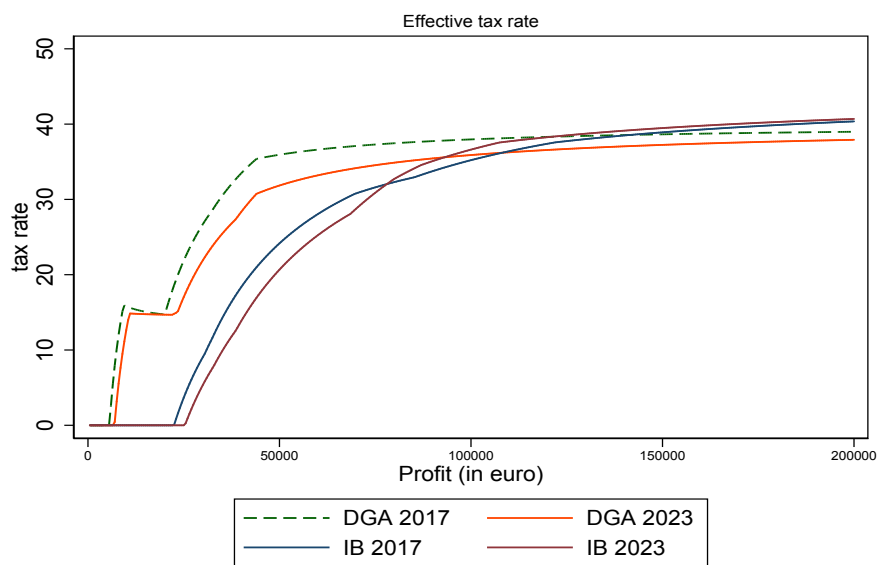


Figure 6: Coalition agreement (2023) and 2017, 100% dividend



### 3 Empirical analysis

What determines the organizational form? Formally, individuals choose sole proprietorship (*ib*) if their expected utility is higher than utility from a small company (*dga*). They derive utility from consumption and leisure and that is where tax rates come into play. Tax rates reduce the after-tax income that is needed for consumption. Both self-employed and owners of small companies pay taxes, but because of the differential tax treatment, owners of a small company pay less taxes at higher income levels whereas self-employed pay less taxes at lower income levels (see Section 2). Besides fiscal incentives, individuals have unobserved preferences, such as entrepreneurial traits or preference for risk-bearing.

In general, a transition from self-employment to an owner of a small company is specified as follows:

$$D_{i,t+1} = \alpha + \gamma F_{i,t} + \delta' X_{i,t} + \mu_i + u_{i,t+1} \quad (1)$$

where  $D$  is a dummy variable that equals one if someone moves from *ib-ondernemer* in  $t$  to *dga* in  $t+1$ .  $X_{i,t}$  is a vector of control variables. Before tax income is measured by  $I_{i,t}$  and  $F_{i,t}$  measures the (expected) fiscal incentive and depends on (expected) after-tax income in both occupations ( $F_{i,t} = I_{i,t+1}^{ib} * (1 - \rho_{t+1}^{ib}) - I_{i,t+1}^{dga} * (1 - \rho_{t+1}^{dga})$ ). To allow for a non-linear effect, we also specify the fiscal incentive in classes.

Estimating equation 1 with standard regression raises econometric issues, which we cannot fully address in this research. Therefore, we are cautious in interpreting the effect of fiscal incentive on the choice of organizational form in a **causal** way. To be more precise, our tax rate variable is endogenous, meaning that a higher income will also lead to a higher tax rate. For this reason, there is a reverse relationship between our dependent variable and our independent variable and this will bias our coefficient. The usual approach is to instrument the tax rates by exploiting exogenous variation in the tax rates. Unfortunately the tax rates stayed rather constant in our sample period. Another problem is that there could be omitted variables that influence both income as well as preference for occupation. In that way we incorrectly attribute the effect to tax rate. Since we have panel data, we can control for this type of endogeneity.

#### 3.1 Alternative income

The determination of fiscal incentive  $F_{i,t}$  is potentially problematic in two cases. First, only outcomes are observed and therefore for non-switchers *dga* income ( $I_{i,t+1}$ ) is unknown. Second, individuals not only decide on current income, but on expected income, which is unknown for both current as well as the alternative occupation. Most studies

impute alternative income by using information from *current dga*. This is done in *two steps*; first a income equation is estimated and the estimated coefficients are used in the second step to predict income for current self-employed with the same characteristics.

In our application we take a different approach. Because we observe a comparable profit income across occupations we are able to pool all observations and estimate one profit equation ( $I_{i,t+1}^{dga} = I_{i,t+1}^{ib}$ ). The advantage is that we can use (unobserved) individual specific earnings ability to calculate the alternative expected income and we can use the individual earnings in  $t$  to predict future earnings  $t + 1$ . A more detailed description of our approach is given in Appendix A. After determining the **before-tax** income we simulate the tax system to estimate the **after-tax** income.

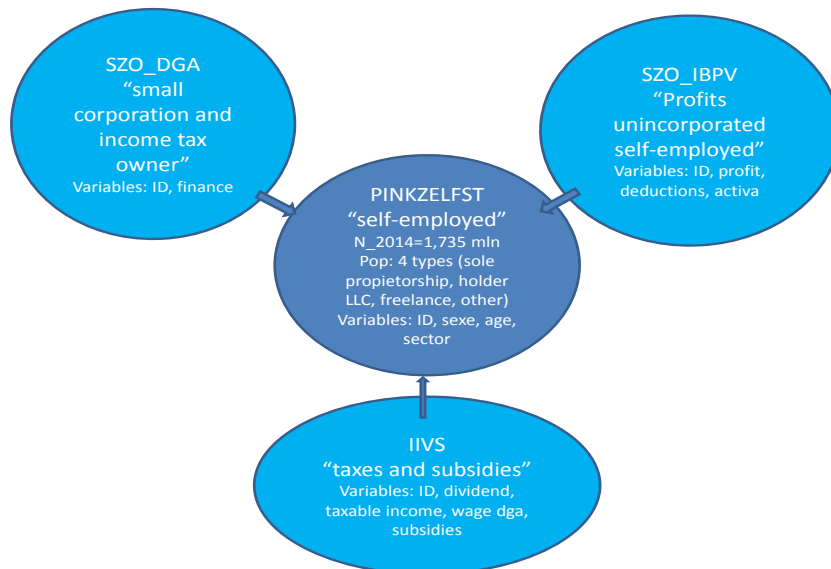
## 4 Data

The dataset combines information from different administrative sources (see Figure 7). The backbone of the dataset is a file consisting of four types of self-employed (in Dutch: PINKZELFST). These types are sole proprietorship, owners of a small corporation, co-working married partner and freelance self-employed. For these individuals we observe their age, sexe and sector. This file also contains a unique individual identifier which we can use to link this to three tax files. The first dataset contains tax filing information for small corporations (in Dutch: SZODGA). The most important variable in this dataset is taxable profit and in addition we also observe various components used to determine taxable profit such as investment deduction, loss offsets, pension reservations. Information on taxable profit for entrepreneurs is contained in a second dataset (in Dutch: SZOIBPV). The third datafile is based on tax filing for income taxes and for subsidies (in Dutch: IIVS). It also contains information on dividend payments.

### 4.1 Characteristics

Owners of a small corporation (dga) are on average older (50 years old) than unincorporated self-employed (46 years old). Almost half of dga are older than 50 years compared to about one-third of the ib-ondernemers. A large majority of dga is men (80%) which is less for the ib (65%). The choice for legal form of the organization seems closely related to the sector (see Figure 8). The earnings capacity of the two types are different, as is shown in the profit distribution in Figure 9. The spread of the distribution is wider for dga. The median profit hardly differs (2900 euro). The profit earnings are not comparable in terms of disposable income, because the dga has already paid out a wage whereas

Figure 7: Data

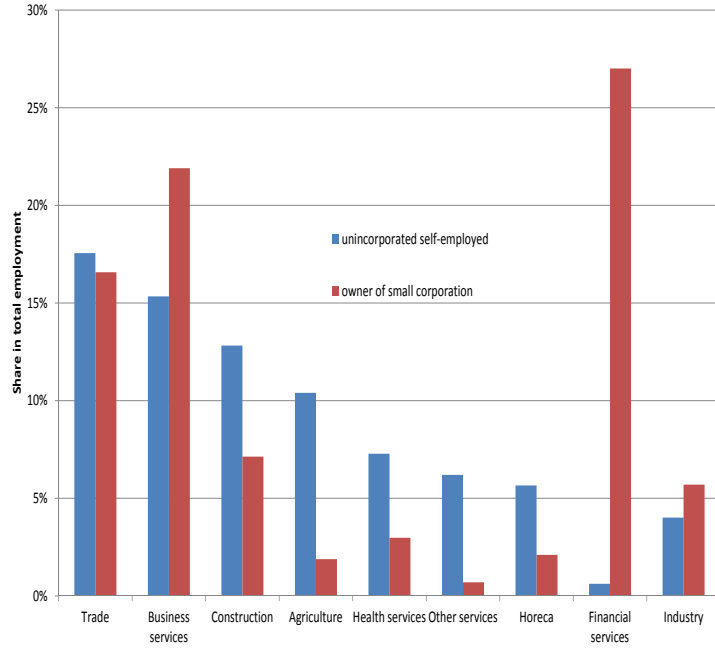


the ib-ondernemers only receives this profit as income. On average, the dga earns almost 13,000 euro more than the ib-ondernemers. The differences are largest in the tails of the distribution. The distribution of the profit income of dga is much wider, meaning that at the tails of the distribution they make both more losses and more profit. This could be due to the limited liability due to the corporation. This may increase the risk-bearing behaviour of individuals or specific types of individuals choose this legal form. It could run both ways.

Recent research for the US has shown that owners of small corporations and unincorporated self-employed differ vastly in their *personal characteristics* (Levine and Rubinstein, 2016). Incorporated entrepreneurs engage in activities demanding stronger non-routine cognitive skills and more managerial skills than their incorporated counterparts. The authors note that these traits are associated with productivity-enhancing or successful entrepreneurship. On the other hand, unincorporated need lower levels of these non-routine cognitive skills and use more manual skills. There is hardly any switch between the two groups indicating that the choice of the legal form aligns with ex ante features of the business and not on its ex post success. Furthermore they show that both types differ in their personal traits which are already observable at youth (Levine and Rubinstein, 2016).

The Dutch unincorporated self-employed - including ib and freelancers - score higher on openness and extroversion (part of the Big-Five index) and take a higher risk than

Figure 8: Sector



wage employees (Bosch et al., 2013). Unfortunately similar information for Dutch dga is not available which makes a comparison impossible.

## 4.2 Switches

Table 1 presents all switches across types of self-employment. In general, relatively few switch. Of all dga's observed in 2007-2011 only 12,734 switch to ib (2.7%). Of all ib in 2007-2011 28,148 incorporate (0.8%). Not surprisingly, switching occurs more for entrepreneurs that perform activities in both organizational forms, but even after three years, 44% of the entrepreneurs do not choose one between the two.

The chance to switch is highly correlated with income. For dga with profit less than 50K about 5% switch to a sole proprietorship and for those with more than 75K only 1% switches. The opposite is true for ib. For those earning less than 75K there is no incentive to incorporate, but for ib earning more than 75K it is attractive and 3% incorporate. Another 1% start a corporation while continuing performing activities for their sole proprietorship. A similar pattern arises for those that combine legal forms. Notwithstanding the higher switches across higher income levels, the changes remain very small considering the fiscal advantages of incorporation for those earning more than 200K.

Table 1: Switches

*Absolute numbers*

	from:				
to:	IB	dga	combi	other	Total
IB	3306508	12734	14329	197269	3530840
dga	28148	440481	21391	27360	517380
combi	19071	8721	30763	4402	62957
other	141786	14383	3436	1117585	1277190
Total	3495513	476319	69919	1346616	5388367

*Relative shares*

	from:				
to:	IB	dga	combi	other	Total
IB	94.6%	2.7%	20.5%	14.6%	65.5%
dga	0.8%	92.5%	30.6%	2.0%	9.6%
combi	0.5%	1.8%	44.0%	0.3%	1.2%
other	4.1%	3.0%	4.9%	83.0%	23.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Notes: The table shows the three-year switches for individuals in years 2007-2011.

Figure 9: Profit distribution

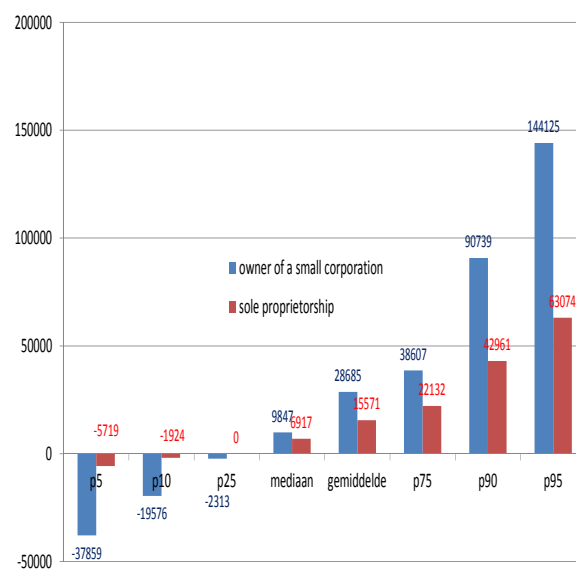
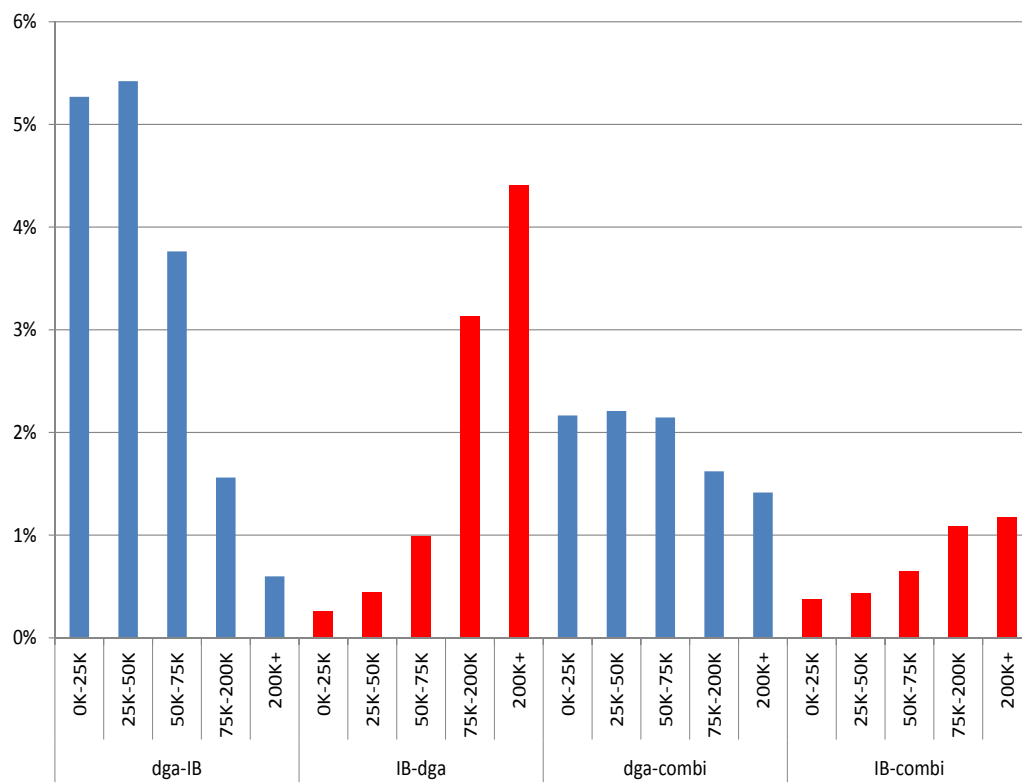


Figure 10: Switches by income level





## 5 Results

### 5.1 Occupational choice

Table 2 shows the estimation results for switching from ib to dga. Since we cannot adequately control for possible endogeneity (see Section Empirical Analysis) the results are indicative and cannot be interpreted as causal effects.

In general, the probability of switching to dga equals 0.9%. In accordance with the descriptives men are more likely to switch from ib to dga (+0.57%). The probability of switching decreases with age and increases with assets. The fact that the individual is an employer also increases the switch likelihood (+0.52%). Our main variable is the change in net-of-tax-income. The linear effect is small, significant and positive. A higher net-of-tax income as an ib increases the probability of switching to dga by 0.17%. In the class specification we see that the effect increases with the net income differential. For individuals where the difference equals more than 25K the probability of switching is 3% higher than for individuals where the difference is negative.

Table 3 summarizes the estimation results for switching from dga to ib. Overall the probability of switching to ib equals 2.7%. Most of the results are the mirror image of the switch from ib to dga. The chance is significantly higher for the age group 45-60 but remains fairly small. Those with employees or higher assets are less likely to switch to ib, while women are more likely to do so. The coefficient on our main variable, the difference in net-of-tax income, is negative. A higher net-of-tax income as a dga decreases the probability to switch to ib by 0.50%. The effect of net-of-income is nonlinear. For individuals whose expected net-of-tax income as a dga is more than 25K higher, the switching probability to ib is 2% lower than for those individuals where the expected difference is less positive.

The results are similar for those combining activities in a corporation and a sole proprietorship (see Table 4). A higher net-of-tax income decreases the switch to ib by 0.18%, whereas a higher net-of-tax income increases the switch to dga by 0.14%. Again, these are fairly small effects.

Table 2: Results switch ib-dga

	marginal effect	standard error
Difference net-of-tax income	0.17	0.00
Difference net-of-tax income in classes		
Difference net-of-tax income: -10K to -2.5K		
Difference net-of-tax income: -2.5K to -1K	0.06	0.039
Difference net-of-tax income: -1K to 0	0.32	0.040
Difference net-of-tax income: 0K to 5K	0.95	0.038
Difference net-of-tax income: 5K to 10K	1.71	0.041
Difference net-of-tax income: 10K to 25K	2.09	0.041
Difference net-of-tax income: 25K and more	3.08	0.049
Agegroup: 20-25 reference group		
Agegroup: 25-30	0.04	0.04
Agegroup: 30-35	-0.10	0.04
Agegroup: 35-40	-0.35	0.04
Agegroup: 40-45	-0.68	0.04
Agegroup: 45-50	-1.05	0.04
Agegroup: 50-55	-1.32	0.04
Agegroup: 55-60	-1.59	0.04
Agegroup: 60-65	-1.79	0.05
Women	-0.57	0.016
Assets: reference group -300K tot -25K		
Assets -25K tot 1K	0.00	0.032
Assets 1K-19K	-0.05	0.029
Assets 19K-104K	0.35	0.027
Assets 104K tot 400K	0.50	0.028
Assets 400K tot 3200K	0.13	0.033
2008	1.19	0.024
2009	1.24	0.025
2010	1.22	0.025
2011	0.81	0.024
Employees (no=reference group)	0.52	0.01
Observations	2,995,434	
Pseudo R2	0,08	

Notes: The table shows the results of the logit model with switch from ib to dga after three years as the dependent variable. The average chance to switch equals 0.9%. Difference net-of-tax income is net income dga minus net income ib. For factor variables the effect is the change from the reference group.

Table 3: Results switch dga-ib

	marginal effect	standard error
Difference net-of-tax income	-0.50	0.02
Difference net-of-tax income in classes		
Difference net-of-tax income: -10K to -2.5K reference group		
Difference net-of-tax income: -2.5K to -1K	-0.03	0.05
Difference net-of-tax income: -1K to 0	-0.16	0.05
Difference net-of-tax income: 0K to 5K	-0.50	0.05
Difference net-of-tax income: 5K to 10K	-1.04	0.06
Difference net-of-tax income: 10K to 25K	-1.34	0.06
Difference net-of-tax income: 25K and more	-2.06	0.12
Agegroup: 20-25 reference group		
Agegroup: 25-30	-0.04	0.19
Agegroup: 30-35	0.23	0.18
Agegroup: 35-40	0.29	0.18
Agegroup: 40-45	0.28	0.18
Agegroup: 45-50	0.46	0.18
Agegroup: 50-55	0.55	0.18
Agegroup: 55-60	0.43	0.18
Agegroup: 60-65	0.15	0.18
Women	0.07	0.03
Assets: reference group -300K tot -25K		
Assets -25K tot 1K	0.04	0.04
Assets 1K-19K	-0.03	0.04
Assets 19K-104K	-0.29	0.03
Assets 104K tot 400K	-0.68	0.03
Assets 400K tot 3200K	-1.22	0.05
2008	-0.83	0.05
2009	-0.68	0.05
2010	-0.51	0.05
2011	-0.13	0.04
Employees (no=referencegroup)	-0.16	0.02
Observations		312,727
Pseudo R2		0,061

Notes: The table shows the results of the logit model with switch from dga to ib after three years as the dependent variable. The average chance to switch equals 2.7%. Difference net-of-tax income is net income dga minus net income ib. For factor variables the effect is the change from the reference group.

Table 4: Results switch combination to either dga or ib

<i>Switch from combination to ib</i>		
	marginal effect	standard error
Difference net-of-tax income	-0.18	0.012
<i>Switch from combination to Dga</i>		
Difference net-of-tax income	0.14	0.009

Notes: The table shows the results of the logit model with switch from combination to either dga or ib after three years as the dependent variable. The average chance to switch equals 20% resp. 24%. Net income difference is net income dga minus net income ib.

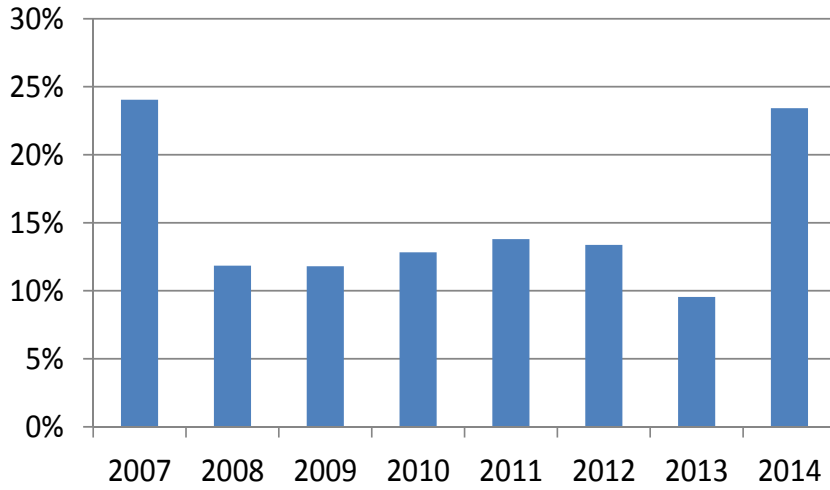
## 6 Income shifting

Through income shifting owners of small corporations and ib-ondernemers can lower taxable income and reduce tax liabilities. In contrast to ib-ondernemers who only pay income taxes, owners of small corporations have some degree of flexibility in income shifting. First, they can shift income between capital and labour within one year. There is a clear incentive to reduce labour income and raise capital income because the latter is taxed less. However, the amount of the wage earnings is subject to certain rules (Bettendorf et al., 2017). Second, they can shift income over time by retaining profits in the company, which they frequently do (see Table 5).

### 6.1 Dividend

Our longitudinal data enables us to follow owners of small corporations and their dividend payments for eight years. The tax rate on dividends equals 25% except for two years - 2007 and 2014. In those years the tax rate was lowered to 22% for the first 250K dividends, a so-called tax holiday. The response to the lower tax rate change is clear: 24% instead of 13% pay out dividend (see Figure 11). Interestingly, there seemed to be an anticipation effect as in 2013 less dividend is paid out. The data also provides information on the amount of dividend payment in each year. Dga did not only pay out dividend more often in these years, but also much more dividend (see Figure 12). Of all dividend payments equal to the first tax bracket (250K) the combined payments in 2007 and 2014 is about 95% of all payments during 2007–2014. Exploiting the longitudinal element we notice that almost half of them do not pay out dividend in eight years (Table 5). When they do pay dividend it is in the tax holiday years. These descriptives show a clear pattern: owners of

Figure 11: Share of dividend payments, 2007–2014



small corporations react strongly to the tax they have to pay on dividend.

Figure 12: Distribution of dividend payments, 2007–2014

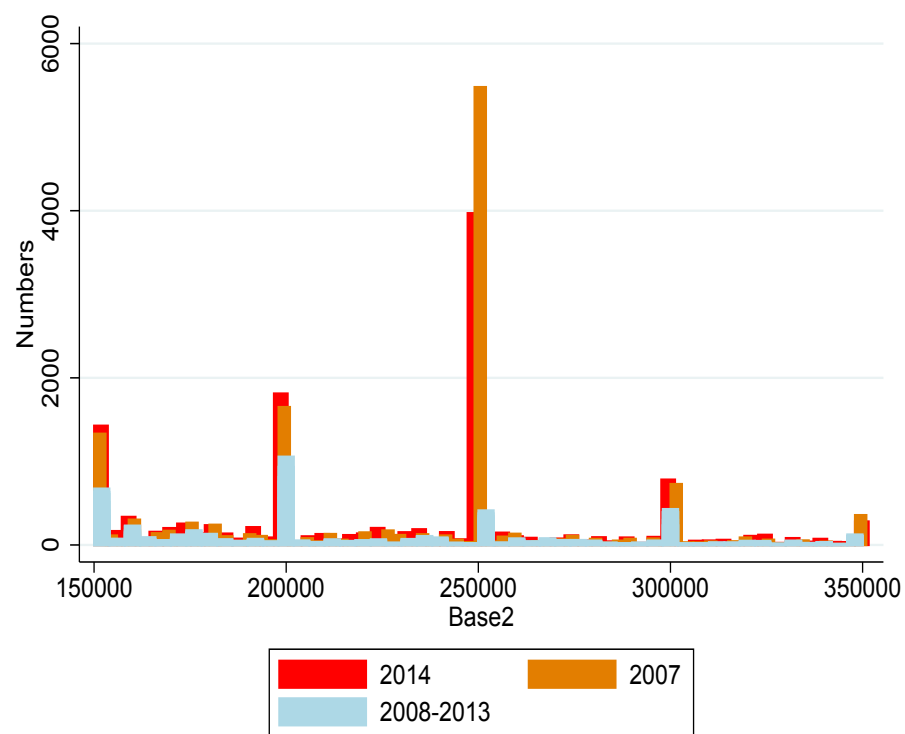


Table 5: Dividend payments for each corporation over time

Number of years by	Number of times dividend is paid out					Total
	0	1	2	3	4-8	
1	40744	4947	0	0	0	45691
2	34618	4352	1093	0	0	40063
3	28695	4582	1456	532	0	35265
4	24616	4564	1793	821	334	32128
5	21998	4961	2125	1092	886	31062
6	20002	5043	2361	1222	1304	29932
7	20243	5622	3012	1752	2357	32986
8	56651	21771	14299	9544	17453	119718
Total	247567	55842	26139	14963	22334	366845

Notes: The table shows the number of times dividend is paid out (columns) against the number of years in the sample (rows). Almost half (56651/119718) of dga’s have not distributed dividend in eight years.

## 7 Conclusions

In this paper we analyze the fiscal incentive on the choice of organizational form. We carefully assess the tax schemes for unincorporated self-employed (*ib-ondernemers*) and owners of small corporations (*dga’s*). There is a fiscal incentive to become dga for higher-earning entrepreneurs as the combined tax rate is lower and dga’s can further lower their present tax rate by retaining profit in the corporation. On the other hand there are fiscal advantages for being self-employed especially for low-income entrepreneurs due to several tax exemptions.

Using unique administrative paneldata collected by Statistics Netherlands we are able to follow entrepreneurs and their companies in 2007–2014. These data contain their type of entrepreneurship as well as information on their company (profits) and dividend payments.

From our descriptive analyses, we see several difference between the two types of self-employed. Owners of a small corporation (dga) are on average older than unincorporated self-employed and a large majority of dga is men (80%). The choice for legal form of the organization seems closely related to the sector. Almost 60% of dga work in business services and financial services, whereas *ib-ondernemers* work in several sectors and proportionally more than dga in agriculture, health and culture. Their earnings capacity also

differs. On average, the dga earns almost 13,000 euro more than the ib-ondernemers, but their profit distribution is more spread. They makes significantly higher losses and higher profits. The could be due to their limited liability. This may increase their risk-bearing behaviour or specific types of individuals choose this legal form. The causality could run both ways.

A large difference in the fiscal treatment is the possibility to postpone tax liabilities by postponing dividend. Our longitudinal approach reveals a clear pattern: owners of small corporations react strongly to the tax they have to pay on dividend. During so-called tax holidays where the tax rate was lowered by 3% both the incidence and amount of dividend increased.

From our main analysis we conclude the following. First, we find very few switches between organizational forms. Over a three-year time period, less than 1% of unincorporated self-employed incorporate and about 3% of owners of a small corporation switch to sole proprietorship. Not surprisingly, switching occurs more for entrepreneurs that perform activities in both organizational forms, but even after three years half of the entrepreneurs do not choose for one of the two. Second, we find a significant coefficient on the difference in net-of-tax income but the effect is small. Since income is related to non-observables with we cannot fully control for, we are cautious to interpret this as a causal effect. Third, other characteristics such as being an employer or working in a certain sector determine the switches as well. Fourth, besides fiscal incentives and characteristics which we can observe, other non-observable preferences such as preferences for risk and insurance are important drivers as well.

Overall, we find that the occupation choice is strongly related to income. Higher-earning entrepreneurs are more often owners of a small corporations and lower-earning entrepreneurs are more often self-employed. Besides financial incentives other factors seem to play a role as well.



## A Alternative income

To determine the fiscal incentive  $F_{i,t}$  we use observed profit in our dataset. For profit income  $I^{dga}$  from *dga* we start with a fiscal profit variable and add wage dga.<sup>4</sup> For profit income  $I^{ib}$  from *ib* we take the profit variable from the income tax filings.<sup>5</sup>

We estimate one profit equation for profit level  $I_{i,t+1}$  (and include lag values  $I_{i,t}$ ), pooling years and use the panel element to calculate the fixed effect ( $\mu$ ):

$$I_{i,t+1} = \alpha + \lambda I_{i,t} + \delta' X_{i,t} + \kappa_t + \mu_i + u_{i,t} \quad (2)$$

Where  $\kappa_t$  measures time variation, and observed capital is included in  $X_{i,t}$ . We explicitly allow for negative income by including two separate functions for losses and profits (Edmark and Gordon, 2013).

We now predict income by drawing  $N = 10$  from two normal distributions: individual fixed effect  $\mu_i \sim N(\mu_i, \sigma_i)$  and residual distribution  $e \sim N(\mu_e, \sigma_e)$  based on equation 2.

After determining the **before-tax** income we simulate the tax system to estimate the **after-tax** income.

$$I_{i,t+1}^{\hat{}} = \bar{\alpha} + \hat{\lambda} I_{i,t} + \hat{\delta}' X_{i,t} + \hat{u}_i + e_{i,t}^{\hat{}} \quad (3)$$

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<sup>4</sup>To be more precise, we add profit variable V0791 from the corporate tax file to the wage dga T1030DGN from personal income tax file. Variable V0791 (in Dutch: *VPB-gegevens:saldo fiscale winstberekening*) is the fiscal profit, the differences between turnover and costs.

<sup>5</sup>This is profit variable V0791 (in Dutch: *saldo fiscale winstberekening*) which is income before self-employment deduction and profit exemption.

Table 6: Estimation profit income  $t + 1$ 

	Coef.	robust s.e.
Profit <sub>t</sub> t	0.86	0.001
Profit <sub>t</sub> <sup>2</sup>	0.00	0.000
Loss t	-0.55	0.012
(min)Loss <sub>t</sub> <sup>2</sup>	0.00	0.000
Assets	0.02	0.000
Constant	8120.08	37.61
$\sigma_u$	15.572	
$\sigma_e$	29.581	
rho	0.22	
R2 overall	0.57	
Observations	5,833,788	

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