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QUANTITATIVE ANALYSIS OF CORPORATE INCOME TAXATION OPTION FOR PARTNERSHIPS IN GERMANY

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ABSTRACT

The purpose of the article. The aim of this article is to quantitatively analyse the taxation of partnerships in Germany. In doing so, this paper examines the quantitative effects of the new taxation system (so-called 'option model') for partnerships in Germany and answers the question of which factors influence the tax burden the most and whether the option model would have been more favourable for large partnerships in Germany in the past.

Methodology. The methodology in this paper was a quantitative research within the framework of Pearson correlations of selected microdata, which was provided by the 'Stiftung Familienunternehmen' (Foundation for Family Businesses) and includes the partnerships with the highest number of employees in Germany in the years 2010–2018.

Results of the research. The results of this paper are, in particular, the amount of withdrawals from the partnership under the option model introduced on 1 January 2022 can be decisive for the tax expense. Furthermore, it was found that the option model would not have led to a lower tax expense for the largest partnerships in Germany in the past.

Keywords: quantitative analysis, correlation, taxes, option model, partnerships, load comparison.

JEL Class: H20, H21, H25.

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Quantitative Analysis of Corporate Income Taxation Option for Partnerships in Germany

For many years, German tax law has been defined by a dualistic framework, distinguishing between the so-called separation principle for corporations and the transparency principle for partnerships. This dichotomy has been extensively analysed in academic literature, with Jacobs et al. (2015) specifically examining the tax treatment of natural and legal persons.

Under the separation principle, a clear distinction is maintained between the corporate entity and its shareholders. Consequently, a corporation's taxable income is initially subject to taxation independently of its shareholders. The corporate income is taxed at a rate of 15%, supplemented by a 5.5% solidarity surcharge, as well as municipal trade tax, which varies by location but is generally estimated at approximately 15%. Furthermore, any profit distributions made to shareholders are subject to additional taxation upon receipt. At the shareholder level, dividends are typically subject to a flat tax rate of 25%, plus the solidarity surcharge of 5.5%. However, under certain conditions, alternative taxation rates may apply. In general, this results in a two-tier taxation system, where profits are taxed both at the corporate and shareholder level.

A key aspect of the separation principle is the tax recognition of the corporation and its shareholders as distinct taxable entities. This entails the acceptance of business relationships between the two for tax purposes, while also enforcing a general prohibition against offsetting profits and losses between the corporation and its shareholders. However, corporations have the option to retain earnings, thereby deferring distribution and the associated shareholder-level tax liability. In summary, corporate profits are taxed in two stages: at the corporate level, an effective tax burden of approximately 30% applies, while at the shareholder level, distributed profits are taxed at 25% plus the solidarity surcharge. In cases where the top personal income tax rate of 45% applies, the resulting effective tax burden on distributed profits can reach approximately 27% plus the solidarity surcharge. Consequently, the total tax burden on corporate earnings amounts to roughly 48% (Lüdicke & Sistermann, 2018).

In contrast, the transparency principle governs the taxation of partnerships. Under this approach, the partnership's annual business results and equity are directly attributed to its partners in a "transparent" manner. Except for trade tax, the partners are treated as the direct taxpayers, meaning that the partnership's taxable income is allocated to the partners and subject to personal income tax at their applicable tax rate. The taxation process unfolds in two stages: first, the partnership's taxable income is determined separately and uniformly, and subsequently, each partner's proportional share is assigned. In the second step, the allocated income is offset against the partner's other income, special expenses, extraordinary charges, and applicable allowances. Notably, taxation at the partner level is independent of whether profits are actually withdrawn or retained within the partnership.

Additionally, any special remuneration paid by the partnership to a partner such as compensation for services rendered, loans provided, or assets contributed is included in the partnership's separately determined results. Such remuneration is subject to taxation at the partner's individual tax

rate, potentially reaching the top marginal rate of 45%, regardless of the actual receipt of funds. In summary, partnership income is subject to a maximum income tax rate of 45%, plus a 5.5% solidarity surcharge, aligning its effective tax burden with that of corporations. However, if the local trade tax multiplier exceeds 380% (or 400% for the 2020 assessment period), additional trade tax obligations may arise due to the limited ability to offset trade tax against personal income tax (Jacobs et al., 2015).

To mitigate potential disparities arising from this dualistic system, the German legislature introduced a provision designed to harmonize the taxation of different legal forms while facilitating practical implementation for both taxpayers and their advisors. This legislative measure grants partnerships the option to forgo the transparency principle and instead opt for taxation under the separation principle. This reform benefits not only large partnerships or those with highly taxed partners but also mid-sized partnerships seeking a more favourable tax treatment. As a solution, the German legislator introduced the corporate taxation option under § 1a Corporate Income tax Act ("KStG"), enacted through the Corporate Tax Modernization Act of March 19, 2021 (Kußmaul & Gottfreund, 2021: 161).

In this context, and to ensure neutrality of legal form, the previously discussed option for corporate taxation for partnerships pursuant to Section 1a KStG was introduced into the law. Under this option, partnerships can apply to be treated as corporations in future. This change of taxation regime is carried out as part of a notional change of legal form (Böhmer & Schewe, 2022).

The opting partnership will be treated as a corporation and its partners as non-personally liable partners of a corporation. At the same time, this "treatment" on the factual level applies only for the purposes of taxation according to income. As a result of the fictitious treatment as a corporation, the company, which under civil law continues to exist as a partnership, becomes an independent taxable entity which is subject to corporate income tax (Kanzler, 2021). Due to German tax law, the date of contribution is the end of the fiscal year preceding the fiscal year in which the option first applies. Insofar as the financial year is the same as the calendar year, the contribution date for the first effective option in 2022 would be the end of December 31, 2021. Accordingly, the taxation regime and thus the above-mentioned consequences at the level of the opting company or the partners are linked to this point in time (Brühl & Weiss, 2021).

If the management or the registered office of the opting company is located in Germany, it is subject to unlimited corporate income tax liability. This means that, irrespective of the actual nature of its income, this is always qualified as commercial income, so that potential gains are forever subject to tax and the income of the opting company is subject to trade tax. Furthermore, specific regulations such as the off-balance sheet adjustment of income from participations in other corporations and associations of persons should be mentioned here. For example, dividends and gains from the disposal of investments could be now only subject to corporate income tax at a rate of 5% (Wacker et al., 2021: 7 et. seq).

Since the participation in the opting company after the option is equivalent to a participation in a corporation, the profits of the company are no longer directly attributed to the shareholders due to the

applicable separation principle (Fuhrmann, 2021) Rather, the income caused by the corporate relationship is income from capital assets and therefore profit distributions. For this reason, those profit distributions are subject to capital gains tax, which must be withheld and paid by the opting company for the account of the shareholders. If the income is held as private assets, the tax liability is generally settled with the withholding of capital gains tax (Micker & Pohl, 2024, Margin no. 496 et. seq).

This article aims to conduct quantitative research into the extent to which the above option model has a positive effect on the tax burden of the partnership in Germany. This gives rise to the following research question:

Which factors influence the tax expense of the above option model and would this option model have been more favourable for the largest partnerships in Germany in the past?

In answer to this research question, the author of this paper puts forward the following hypotheses:

The decisive factor with regard to tax expense will be the profit earned and the amount of withdrawals. This is because, under the aforementioned separation principle, withdrawals and profit distributions are additionally taxed at approx. 25% plus the solidarity surcharge.

Regarding the question of whether the option model would have been more favourable for the largest partnerships in Germany in the past, the author hypothesises that this is the case because these are likely to make lower withdrawals.

To test these hypotheses, the data basis is explained in Chapter 2 of this article. In this respect, the microdata from a study by the ‘Stiftung Familienunternehmen’ (one of the largest foundations in Germany) was used, which contains the most labour-intensive partnerships in Germany from 2010 to 2018. The research methods are explained in Chapter 3. In particular, multiple correlations were used to examine the effects of the individual factors on the tax burden of the partnerships. Furthermore, a tax comparison was calculated to check whether the option model would have been more favourable for the partnerships in the past. In Chapter 4, the respective evaluation and interpretation of the research methods is analysed and the results of the quantitative research are developed so that the hypotheses can be confirmed or refuted. Finally, Chapter 5 provides a summary including a reference to the answer to the research question.

Data

The data examined in this research refers to a survey conducted by the Foundation for Family Businesses in cooperation with the Ifo institute in 2020. The title of the study is: "The contribution of family businesses to tax revenue in Germany – development of taxes on income and earnings". The study was published by the Foundation for Family Businesses and conducted by the Ifo institute under

the project management of Prof. Dr. Thiess Büttner and Ms. Luisa Dörr. It emphasizes the following key points regarding the data basis (Stiftung Familienunternehmen, 2020).

The Foundation for Family Businesses is a non-profit foundation in Germany based in Stuttgart. The purpose of the foundation is the promotion, information, education and training as well as the scientific exchange of experience in the field of family entrepreneurship in Europe. The foundation is one of the most important sponsors of scientific research on the subject of family businesses and is supported by over 600 companies from the circle of the largest family businesses in Europe (Stiftung Familienunternehmen, 2024). In the course of this, the author of the PhD study was accepted into the doctoral and postdoctoral program, so that, in addition to receiving comprehensive microdata, he will also be able to exchange ideas with employees of the Foundation and also receive support in increasing the reach of the research results by publishing a summary of them on the Foundation's website. Specifically, the author was given written confirmation of funding on September 28, 2023.

As part of this analysis, the 500 largest family-owned businesses in Germany, ranked by employee count ("TOP 500"), were examined by the Ifo institute concerning their tax contributions during the period from 2010 to 2018. For the purpose of this study, family businesses are defined as companies in which a controllable number of individuals or one or more families hold the majority of voting capital (family-controlled enterprises). If at least one of the owners is actively involved in managing the company, the business is classified as an owner-managed family enterprise. The classification of a company as a family business is based on capital ownership, meaning that firms in which at least 50% of voting capital is controlled by a maximum of three individuals or families qualify as such. Additionally, eligible companies must be headquartered in Germany and generate a minimum annual revenue of 50 million euros.

This study specifically focuses on corporate tax payments that are directly linked to a company's earnings. These tax obligations vary depending on the company's legal structure and profit allocation. For corporations, corporate tax payments include trade tax, corporate income tax plus a solidarity surcharge, and capital gains tax. For partnerships, corporate taxes comprise trade tax, capital gains tax, and income tax plus a solidarity surcharge, which are assessed at the shareholder level. Since official statistics from the Federal Statistical Office do not consolidate total corporate income tax payments, this study supplements available data with well-founded estimates derived primarily from annual financial statement data. The analysis relies on financial statement data from the 500 largest family-owned businesses in Germany to determine tax payments.

To compile data on revenue, profit figures, and tax burdens, three primary data sources were utilized by the Ifo institute. The primary source was the Bisnode company database, previously known as Hoppenstedt in Germany until 2013. In addition, data from the 'Orbis database' of the Bureau van Dijk and the Gottschalk et al. database were analysed by the Ifo institute in the previous analysis.

The study primarily focuses on three key financial metrics: revenue, profit, and tax burden. Annual and consolidated financial statements serve as the foundation for this analysis, ensuring that

values are extracted in accordance with commercial law principles. A particularly relevant factor for the quantitative analysis conducted in this paper is the rate of profit retention. Moreover, with reference to a previous study conducted by the Foundation for Family Businesses, this factor plays a critical role in determining tax payments for partnerships at the shareholder level, as these figures are not explicitly detailed in corporate financial statements. To assess retention rates, partnerships within the TOP 500 family-owned businesses were surveyed. Respondents were asked to specify their retention rate either in percentage intervals of ten or in exact amounts. Of the 213 partnerships surveyed, 31 (approximately 15%) responded and submitted their data to the Ifo institute. The distribution of these responses was proportional across the ranking intervals of the TOP 500, with 5 companies ranking below the TOP 100, followed by a distribution pattern of 5-6-6-5-7 across subsequent ranking categories.

This quantitative analysis specifically examines partnerships and their tax burden. The previous study conducted by the Foundation for Family Businesses in collaboration with the Ifo institute collected data on both corporations and partnerships. For the purpose of this study, a distinction was made between the datasets of corporations and partnerships. Consequently, tax-related data from 224 to 225 partnerships (depending on the year) within the TOP 500 largest employers in Germany between 2010 and 2018 were analyzed.

The variable 'Profit/Loss' serves as the basis for the respective tax declarations, representing the financial outcome of the partnership for each given year. Additionally, the study examines tax expenditures under the original taxation framework (transparency principle) and evaluates correlations and regressions based on findings from the preliminary research. This analysis aims to determine whether a statistically significant relationship exists between tax expenditures under the original taxation framework and those under the option model. For this reason, the variable 'taxes_previous' has been included in the analysis.

The collected data is intended to support an assessment of the option model as defined in Section 1a of the KStG. Accordingly, the above-mentioned financial variables must be supplemented with figures reflecting the tax burden of the option model before and after profit distributions, as well as the amount of withdrawals, which can be inferred from retained earnings data. At the time of the previous study by the Ifo institute, the option model described in the introduction had not yet been implemented in law in accordance with Section 1a KStG (German Federal Government, 2021). This article therefore uses the same microdata and data analysed by the Ifo institute as in the study by the Ifo institute in cooperation with the Foundation for Family Businesses described above. Nevertheless, these data were analysed quantitatively in a different way and for a different purpose.

In the context of this article, the research is based on the above-mentioned study and the variables ‘profit’, ‘tax burden’ and ‘retention rate’ determined in that study. However, these were evaluated completely differently and changed or supplemented by further variables to analyse the option model in accordance with Section 1a KStG. This includes, in particular, the calculated tax burden of the option model (variable is named: ‘Taxes_1a’), the amount of withdrawals, since these can affect

Taxes_1a (variable is named: ‘Withdrawals’) and, accordingly, the tax burden of the option model after withdrawals (variable is named: ‘Taxes_1a_W’).

Such an analysis based on such representative data (the Foundation for Family Businesses is one of the largest foundations in Germany) has not yet been carried out in the literature, since the option model was only included in the law on 1 January 2022. However, the advantageousness of the option model has been analysed in the abstract by Kudert and Rein (2022). Kudert and Rein also differentiated between whether the income after taxes is immediately available for the shareholders' consumption (here Taxes_1a_W) or is used for further income generation (here Taxes_1a). The so-called net income of the co-entrepreneurs from the partnership was chosen as the basic variable, which here represents the variable ‘Profit/Loss’. Since the Ifo institute's previous analysis was able to draw on actual data from practice with regard to the retention rate/withdrawals, it was not necessary to perform a fictitious calculation of the withdrawals (here variable withdrawals) based on dynamic considerations and taxographic analyses. The additional inclusion of the previous tax burden (here Taxes_previous) after application of the previous tax regime was not carried out by Kudert and Rein and was implemented by the author of this article in order to check whether there is a quantitative significance between the old and new tax burden (Kudert & Rein, 2022).

On average, corporate tax burdens amount to approximately 30%. Under the option model in accordance with Section 1a KStG, the tax burden for partnerships opting into corporate taxation would also be 30%, assuming that the taxation of withdrawals is not considered in the initial step (Wackerbeck, 2024). Therefore, the variable "Taxes_1a" is calculated by applying a 30% tax rate to profits. In years where a loss is incurred, no negative tax value is recorded under corporate taxation; instead, losses are carried forward. As a result, the variable "Taxes_1a" is assigned a value of EUR 0 in loss years.

Figure 1

Year	Amount of the retention ratio according to the study in % of profit	Amount of withdrawals as % of profit
2010	69,11	30,89
2011	67,11	32,89
2012	61,20	38,80
2013	64,40	35,60
2014	43,27	56,73
2015	40,67	59,33
2016	39,99	60,01
2017	39,86	60,14
2018	38,18	61,82

The amount of withdrawals can be determined based on the study's calculation of retention rates. Consequently, the percentage of withdrawals relative to profits is derived as the difference between the retention rate determined in the study and 100%. Figure 1 below illustrates the retention rates for the respective years and how the "withdrawal" variable was calculated.

The Ifo institute determined the above-mentioned ploughback rate by asking the business partnerships how much of their respective profits they ploughed back each year. Of course, the partnerships that made a loss could not withdraw any of the profit, since they only had a loss. However, since in these cases profits from the past could also be withdrawn, the author of this article also had to determine the amount of withdrawals for partnerships that had made a loss. For this purpose, the Ifo institute's microdata were analysed by applying the withdrawal rate mentioned in Figure 1 (100% minus the ploughback rate according to the Ifo institute) to the respective profit of the partnerships, so that the nominal amount of total withdrawals could be determined. The author of this article then divided this amount by the number of partnerships that had made a profit. This allowed the average amount of withdrawals in the respective years to be calculated.

This approach is considered representative, as capital is not necessarily withdrawn in every loss-making year. Moreover, from a quantitative research perspective, this methodology allows for a more precise examination of the tax burden's impact on withdrawals. Consequently, the withdrawal amounts for loss-making companies are determined for each year as follows.

Figure 2

Year	Average amount of withdrawals in TEUR	Amount of companies with losses
2010	14,792	7
2011	17,950	6
2012	21,598	11
2013	19,373	15
2014	36,360	13
2015	39,344	13
2016	45,187	8
2017	45,757	10
2018	56,834	9

Since withdrawals under the option model are subject to the same taxation as profit distributions, the tax burden must be determined based on the withholding tax rate of 25% plus the solidarity surcharge. Consequently, the tax burden on withdrawals is calculated at 26.375% per withdrawal and is added to the inherent 30% tax burden on corporate profits. Accordingly, the variable "Taxes_1a_W" is incorporated.

The conclusion that can be drawn from the results is that the data analysed comes from the Ifo institute. However, the author of this article has examined these (micro)data on the basis of the new tax situation under Section 1a KStG and has therefore calculated new variables using the data from the Ifo institute, i.e. Taxes_1a, Taxes_1a_W and Withdrawals, in order to examine which factors affect the new option model and in what way, and whether the above hypothesis that the option model would have already led to tax savings for partnerships in the past. Accordingly, a considerable research effort has been made, since although the data from the Ifo institute could be used as a research basis, it had to be applied to the changed German legal situation in a completely new way.

As a result, the following variables were analyzed: "Profit/Loss", "Taxes_Previous", "Taxes_1a", "Withdrawal", and "Taxes_1a_W".

Research Methods

The above-mentioned variables "Profit/Loss" (β1), "Taxes_Previous" (β2), "Taxes_1a" (β3), "Withdrawal" (β4) and "Taxes_1a_W" (β5) are to be tested for significance in a Pearson correlation analysis for each of the years 2010 to 2018. The correlation coefficient serves as a measure of the strength of the correlation between the interval-scaled characteristics and assumes values between –1 and 1. Specifically, this means that if one variable increases or decreases, the correlation coefficient illustrates the extent to which the other variables also increase or decrease.

If the variables correlate with one another, the next step is to check whether the correlation stands up to a significance test. The significance test is carried out using the "P-value" test. The significance test is carried out using a two-sided alternative hypothesis. The p-value indicates the probability that the correlation is only random. The standard used here is .05 or below, meaning there is a 95% chance the results are not random, or below the 5% error term. The lower the p-value, the more likely it is that the values are not randomly correlated.

On the basis of the known data for the partnerships with the highest employment in Germany, it should then be determined whether the option model would have led to a more favourable tax burden at the fictitious level of the withdrawal based on the survey mentioned in the previous chapter.

In this respect, the average tax rate of the old taxation regime, which could be determined on the basis of the microdata provided, is compared with the tax rate of the option model plus the tax rate of the fictitious withdrawals. As a result, the equation is solved to determine the maximum amount of withdrawals that the partnerships would have been allowed to make in the past for the option model to have been more favourable.

In the analysis by the Foundation for Family Businesses, the data from which was used only as a basis for this research, the amount of the tax burden of the original method of taxation in Germany was not further scrutinised, but rather examined in relation to other economic indicators such as capital, return or profit-shifting elasticity. Rather, the aim of this article is to scientifically determine how the

tax burden of the option model for partnerships in Germany, which has only been applicable since 1 January 2022 and is otherwise only found in this form in Europe in France, can be controlled and whether this would have represented a more favourable taxation variant for the partnerships examined in the study in the past. Accordingly, the research methods also differ significantly, so that this analysis within the scope of this article offers great added value for current German tax law, which was to be revolutionised by the German legislator through the option model.

Outcome

Correlations

The correlation matrix of the variables β1 – β5 is shown below. For reasons of simplification, visualization of the correlations is limited to the year 2018. Nevertheless, the data and their results for the years 2010–2017 are discussed in detail below.

Figure 3

	Profit.Loss	Taxes_1a	Taxes_1a_W	Taxes_previous	Withdrawal
Profit.Loss	1.0000000	0.9997349	0.9991442	0.8968443	0.9966517
Taxes_1a	0.9997349	1.0000000	0.9997322	0.8973258	0.9978344
Taxes_1a_W	0.9991442	0.9997322	1.0000000	0.8974468	0.9990893
Taxes_previous	0.8968443	0.8973258	0.8974468	1.0000000	0.8964096
Withdrawal	0.9966517	0.9978344	0.9990893	0.8964096	1.0000000

The next step involves assessing whether the correlation values presented in the matrix are statistically significant enough to provide a representative probability. Since the variable β5 is central to addressing the research question, a multiple regression model will be applied if its significance is confirmed. The significance test determining the p-value is conducted using a two-sided probability test between the variable "Taxes_1a_W" and the other variables.

Figure 4

```
data:  Profit.Loss and Taxes_1a_W
t = 360.71, df = 223, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9988867 0.9993421
sample estimates:
      cor
0.9991442
```

```
data:  Taxes_1a and Taxes_1a_W
t = 645.14, df = 223, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9996516 0.9997942
sample estimates:
      cor
0.9997322
```

```
data:  Taxes_1a_W and Taxes_previous
t = 30.381, df = 223, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.8686118 0.9202238
sample estimates:
      cor
0.8974468
```

```
data:  Taxes_1a_W and Withdrawal
t = 349.67, df = 223, p-value < 2.2e-16
alternative hypothesis: true correlation is not equal to 0
95 percent confidence interval:
 0.9988154 0.9992999
sample estimates:
      cor
0.9990893
```

The p-value between "Taxes_1a_W" and all other variables is < 2.2e-16, with all correlation coefficients being positive. The strongest correlation is observed between "Taxes_1a" and "Taxes_1a_W" at 0.9997322, whereas the weakest correlation occurs between "Taxes_1a_W" and "Taxes_previous" at 0.8974468.

For the observation period from 2010 to 2017, the p-value test consistently yielded values of < 2.2e-16 each year. Correlation values remained at similar levels, except for two notable deviations: in 2010 and 2017, the correlation between "Taxes_1a_W" and "Taxes_previous" dropped sharply to 0.6142466 and 0.5141057, respectively. In subsequent years, correlation coefficients returned to levels comparable to 2018, in some cases exceeding 0.9 (e.g., in 2016).

Interpretation

Correlations

As part of the analysis of variable correlations, the significance test consistently yielded a p-value of < 2.2e-16 for the variable "Taxes_1a_W" in relation to all other variables. Given that this p-value is well below 0.05, indicating a probability of random occurrence significantly lower than 5%,

the independent variables are deemed highly suitable for explaining the dependent variable "Taxes_1a_W." Consequently, a high level of statistical significance is established.

Furthermore, the consistently positive correlation coefficients in relation to "Taxes_1a_W" indicate that an increase in this variable is accompanied by an increase in all other variables. Specifically for 2018, the correlation coefficients for individual variables ranged between 0.89 and 0.99, suggesting a strong interdependence whereby a rise in "Taxes_1a_W" is associated with a substantial increase in the other variables.

However, two notable exceptions were observed in 2010 and 2017 concerning the correlation between "Taxes_1a_W" and "Taxes_previous." In these years, the correlation coefficients were significantly lower at 0.5141 (2017) and 0.6142 (2010), implying a weaker relationship between these variables compared to other years. This deviation is primarily attributed to variations in the original tax burden under the previous taxation regime, which, in certain years, was significantly lower or not directly tied to the profit or loss, unlike under the new tax system.

These variations can be explained by several tax-related factors. Notably, the taxation of partnership profits at the individual partner level, based on personal income tax rates, played a crucial role. It is reasonable to assume that in 2010 and 2017, the partners' personal tax rates were significantly lower than in other years within the observation period. This could be due to the presence of other negative income streams that were offset against partnership earnings, thereby reducing taxable income. Given Germany's progressive tax system, lower taxable income results in a lower applicable tax rate.

Under the option model, in accordance with Section 1a KStG, offsetting partnership losses against other income types at the partner level is not permissible, as profits are taxed initially at the corporate level and only subject to further taxation upon distribution via final withholding tax. Additionally, the possibility of offsetting distributions against other income is generally restricted unless the shares are held as private assets and specific conditions under Section 32d EStG are met. At the corporate level, there would theoretically be an opportunity to offset losses incurred since adopting the option model, but due to insufficient data, this potential tax reduction was not factored into the analysis. Instead, each year was treated based on its respective initial tax burden.

Consequently, the observed outliers in correlation coefficients do not provide meaningful insights regarding "Taxes_1a_W." Rather, the key takeaway for the subsequent regression analysis is that all variables exhibited statistically significant correlations with "Taxes_1a_W," reinforcing the conclusion that they influence one another.

Load comparison

Based on the findings outlined above, it becomes evident that the tax burden under the option model consists of two key components: the variable "Taxes_1a," which accounts for approximately 30% of the profit of the opting company, and the taxation of withdrawals.

The 30% profit taxation is a fixed rate and can only be influenced by adjusting the amount of the taxable profit itself. However, the level of withdrawals remains flexible and can be determined by

the shareholders of the opting company, allowing for potential reductions in the overall tax burden under the option model.

Accordingly, a key question arises concerning the periods and partnerships analyzed: what level of withdrawals in a given year would have made the option model more favorable for a particular partnership? For this assessment, it is assumed that the legal framework in effect from 2022 is applied to the examined microdata, as the option model only became applicable to financial years beginning on or after January 1, 2022.

This evaluation must, of course, be conducted on a case-by-case basis, as prior tax burdens vary significantly depending on shareholder-specific circumstances. Additionally, the absolute amount of withdrawals differs across partnerships and is also expressed as a percentage of profit in this model.

Nonetheless, to provide a general assessment, an estimate is made regarding the percentage of withdrawals (relative to profit) that would render the option model more tax-efficient than the previous tax regime. The first step in this process is to determine the average historical tax burden and average profit, enabling the calculation of the average percentage tax burden under the prior system, which serves as the benchmark to be outperformed.

In the subsequent formula, the tax burden under the option model is calculated as 30% of profit, while withdrawals – subject to a tax rate of 26.375% – represent the unknown variable. Notably, at the level of the opting company, the tax burden is zero in loss years, as losses cannot translate into negative tax liability but are instead carried forward. Furthermore, since the level of withdrawals in loss years cannot be meaningfully determined from an economic standpoint, the calculation is based exclusively on data from partnerships that generated a profit.

To illustrate this approach, the year 2018 is used as an example. During this year, nine partnerships incurred losses and are therefore excluded from the calculation. The remaining partnerships reported an average profit of approximately EUR 91,932 thousand and an average tax burden of approximately EUR 35,228 thousand, resulting in an average percentage tax burden of 38.32%.

The following formula is applied to determine the maximum permissible withdrawals to match the tax burden of the previous tax regime, where profit is represented as the unknown variable "X" and withdrawals as "Y":

$$38{,}32\%\ X = 30\%\ X + 26{,}375\%\ Y \quad (1)$$

The formula can be solved as follows:

$$8{,}32\%\ X = 26{,}375\%\ Y \quad (2)$$

$$31{,}55\%\ X = Y \quad (3)$$

In order to check the formula, we now calculate the tax burden of the option model, taking into account withdrawals amounting to 31.5463597% (rounded 31.55%) of the average profit.

30% TEUR 91.932 + 26,375% TEUR 91.932 * 31,5463597% = TEUR 35.228. (4)

Accordingly, this formula was used to prove that, insofar as the average amount of withdrawals exceeded approx. 31.55% of the profit in 2018 for the partnerships examined, the option model would be less favorable for the partnerships on average in terms of current taxation than the previous tax regime. Compared to Figure 1, it is clear that, based on the data determined by the Foundation for Family Businesses, the amount of withdrawals in 2018 was significantly higher. Accordingly, it can be argued that the option model pursuant to Section 1a KStG would have been less favorable for the partnerships examined in 2018 with regard to current taxation than the previous dualistic tax regime.

In the following illustration, this will also be examined for the following years using the above-mentioned approach.

Figure 5

Year	Determined maximum withdrawal amount in % of profit	Amount of actual withdrawals according to the Foundation for Family Businesses in % of profit
2010	09,92	30,89
2011	23,37	32,89
2012	31,09	38,80
2013	30,13	35,60
2014	23,01	56,73
2015	19,99	59,33
2016	24,54	60,01
2017	29,27	60,14

Conclusion

In summary, the most significant factor influencing the tax burden under the option model after withdrawals is evidently the profit, as it is consistently taxed at approximately 30%, along with the aforementioned withdrawals, which are also subject to taxation at the shareholder level as profit distributions. This confirms the hypothesis that withdrawals, in particular, have a substantial impact on the tax burden within the option model. This conclusion is further supported by the significance value observed in correlation analyses.

However, given that the amount of withdrawals can be structured flexibly, the option model may be beneficial for partnerships opting for this regime, particularly those seeking to retain profits or capital within the company while making only minimal withdrawals. Nevertheless, an analysis of Germany’s largest family-run partnerships by employment from 2010 to 2018 indicates that in only a limited number of cases would the option model have resulted in a lower tax burden.

Despite this, the option model presents partnerships with an additional taxation alternative that may be advantageous under specific economic conditions. A comparative assessment of tax burdens

clearly illustrates that, on average and based on the assumed withdrawal amounts, the option model would not have been more favorable than the previous taxation system in any given year for the partnerships examined. Nonetheless, partnerships gain access to an alternative taxation framework that could offer benefits under certain economic circumstances.

Disclosure Statement

The author reports no conflicts of interest.

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