The impact of minimum taxation by an imputable wealth tax on capital budgeting and business strategy of German companies

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Notes

1. In contrast, a large literature suggests that capital income should not be taxed at all. Cf., e.g., the seminal papers of Chamley (1986) and Judd (1985). In

intended to be neutral. Referring to neutral tax systems it should only be noted that the cash flow tax and the Johansson–Samuelson tax are special cases of such neutral tax systems (cf. Brown 1948; Johansson 1969; Samuelson 1964).

7. Although all kinds of wealth tax face severe problems e.g. in determining the value of non-listed firms and assets with a long useful life in the following we abstract from these aspects and focus on the economic implication of this minimum wealth tax beyond these difficulties. Asset valuation is indispensable not only for wealth tax purposes but for minimum taxation as implemented in the Netherlands as well. Cf. Ministry of Finance of The Netherlands (2004), p 21.

8. For distributive reasons.

12. We assume a sufficiently high pre-tax market rate of return. Thereby, no wealth tax imputation backlog occurs.

13. Cf. Appendix 1.

14. Cf. Appendix 2.

15. Cf. Appendix 3.

16. Cf. Appendix 4.

23. In Germany, e.g., if loss carry-forwards exceed an amount of € 1,000,000 only 60% of taxable gains can be compensated through it. Austria has introduced a fraction of 75%.

24. Cf. Niemann (2004).

25. In addition to profit AMT.

26. Financial investment causes definitive wealth taxation if the rate of return is very low or wealth tax rate exceeds 1%. In the underlying example we chose a pre-tax rate of return of 2%.

depreciations.

32. Although the provided information does not allow for perfect adjustment for tax purposes, this approach enables us to draw general conclusions on how different relations of profit and wealth that are typical for an industry will influence the tax burden. For these companies asset and equity structures occur, inducing a positive wealth tax base and thereby possibly a definitive wealth tax burden.

33. Note that capitalized market value is the average of the last quotation of every quarter of a year multiplied with the number of released shares. Cf. German Federal Bank (1999, 2003) and various DAX 30 corporations 1993–2003 annual reports.

37. Payouts can be either dividend payments, management fees or related salaries.

38. For example, local business tax purposes according to Sects. 8 and 9 of German Local Business Tax Act (Gewerbesteuergesetz).

39. This method is implemented in Germany's Inheritance Tax Code Directives as the so called "Stuttgart Method" and has been modified for Sect. 46 of the Draft of the Heritage Tax Valuation Act proposed by the Federal State Schleswig–Holstein (Bewertungsgesetz für Zwecke der Erbschaftsbesteuerung).

44. Financial distortions occur more often in cases of higher wealth tax rate.

45. In this example income tax on dividend payments to the corporate shareholder is only € 16,108.

46. In fact, the relation between the shareholder’s income tax bracket, profits and wealth determines tax planning activities and in turn the dividend policy. Depending on individual shareholder’s influence on the dividend payout it may be possible to minimize the tax load by expanding the fraction of distributed profits in this context.

47. Conversely, in corporations only income tax on dividend income serves as imputation potential, whereas income tax on managerial salaries does not.

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Appendix

Equation (13) describes periods with a wealth tax that is higher than the corresponding income tax. In Eq. (14) wealth tax burden is less or equal to income tax burden providing complete imputation. Consequently, there will be no wealth tax burden at all if

$$\tau_w \cdot I_0 \le \tau \cdot (CF- \frac{I_0}{T}) $$

(15)

holds as future wealth tax base decreases whereas the income tax bases remains constant over time. Keeping in mind that we focus on constant cash flows and before-tax marginal investment projects we get

$$\frac{\tau_w}{\tau} \le \frac{i \cdot (1+i)^T}{(1+i)^T -1}- \frac{1}{T} $$

$$(1+i)} =\sum_{t={\bar{t}}+1}^T \frac{ CF_t \cdot (1+i)}{(1+i)^{t-{\bar{t}}+1}}. $$

(19)

Economic depreciation is given by

$$ED_{{\bar{t}}}= PV_{{\bar{t}}-1}-PV_{{\bar{t}}} =\sum_{t={\bar{t}}}^T \frac{ CF_t}{(1+i)^{t-{\bar{t}} +1}} -\sum_{t={\bar{t}}+1}^T \frac{ CF_t \cdot (1+i)} {(1+i)^{t-{\bar{t}}+1}} $$

(20)

$$ \begin{aligned} & = \frac{ CF_{{\bar{t}}}}{(1+i)} +\sum_{t={\bar{t}}+1}^T \frac{ CF_t- CF_t \cdot (1+i)}{(1+i)^{t-{\bar{t}}+1}} =\frac{

(22)

Furthermore, the post-tax present value of linear depreciation is:

$$PV_{LD}=\frac{I_0}{T} \cdot \frac{(1+i_{\tau})^T-1}{i_{\tau} \cdot (1+i_{\tau})^T}. $$

(23)

The income tax effect from the difference between linear and economic depreciation in present value terms is:

$$PV_{\Updelta_D} = \tau \cdot \left[\frac{I_0}{T}\cdot \frac{(1+i_{\tau})^T-1}{i_{\tau} \cdot (1+i_{\tau})^T} -\frac{CF}{i \cdot {\tau} } \cdot \left[\frac{1}{(1+i_{\tau})^T} - \frac{1}{(1+i)^T} \right]\right]. $$

Exemplifying the opposing effects for $\tau = 0.42$, $\tau_w = 0.01$, $I_0 = 1{,}000$ and the time series of the cash flow to be \(CF=\frac{I_0}{\frac{(1+i)^T-1}{(1+i)^T \cdot i}},\) i.e. a before-tax marginal investment, we get the following Table 5.

Table 5 Overall impact before imputing carry-forwards

Obviously, neglecting wealth tax carry-forwards and their future imputation in a first step the positive effect from accelerated depreciation can be overcompensated by wealth taxation (negative overall effect, $OA < 0$). Then, real investment after-taxes is less attractive than financial investment.

1.4 Appendix 4: Eqs. (6) and (7)

(27)

$$IBA_{{\hat{t}} +3}=3 \cdot \tau_w \cdot \frac{I_0}{T} - \left[\tau_w \cdot I_0 \cdot \frac{T-{\hat{t}}+1}{T}-\tau \cdot \left(CF-\frac{I_0}{T}\right)\right], $$

(28)

$$IBA_{{\hat{t}} +4}=4 \cdot \tau_w \cdot \frac{I_0}{T} - \left[\tau_w \cdot I_0 \cdot \frac{T-{\hat{t}}+1}{T}-\tau \cdot \left(CF-\frac{I_0}{T} \right)\right], $$

(29)

$$IBA_{{\hat{t}} +5}= 5 \cdot \tau_w \cdot \frac{I_0}{T} - \left[\tau_w \cdot I_0 \cdot \frac{T-{\hat{t}}+1}{T} -\tau \cdot \left(CF-\frac{I_0}{T}\right)\right]. $$

(30)

$$\frac{(1+i_{\tau})^5-1}{(1+i_{\tau})^5 \cdot i_{\tau}}- \frac{\tau_w \cdot I_0 }{i_{\tau}\cdot (1+i_{\tau})^5 }\cdot {{5}\over {T}}. \\ \end{aligned} $$

(32)

In case of an incomplete offset only a fraction of the wealth tax burden can be offset during the carry-forward periods, i.e. during periods \({\hat{t}}+1\) to \({\hat{t}}+5.\) This effect leads to a present value of tax savings by imputable carry-forwards of:

$$PV_{TS}=\left(\tau \cdot \left(CF-\frac{I_0}{T}\right)-\tau_w \cdot I_0 \cdot \frac{T-{\hat{t}}}{T}+\frac{\tau_w \cdot {I_0 }} {T\cdot i_{\tau}} \right)\cdot \frac{(1+i_{\tau})^5-1} {(1+i_{\tau})^{{\hat{t}}+5} \cdot i_{\tau}} - \frac{\tau_w \cdot {I_0 }}{i_{\tau}\cdot (1+i_{\tau})^{{\hat{t}}+5} }\cdot \frac{5} {T}. $$

overall disadvantage of the real investment in comparison to the financial alternative.

The following Table 7 provides some more numerical results for the given setting with $I_0 = 1{,}000$, $\tau = 0.42$ and $\tau_w = 0.01$:

Table 7 Overall present value of tax impact

If we focus on the relative change of the rate of return we get corresponding results:

Table 9 Structure of small craft and trade partnerships and medium-sized companies

Information from balance sheets and profit and loss accounts for 2002 for craft and trade companies provided by the North-Rhine Westphalian Chamber of Crafts (cf. Table 9) provides data for the craft and trade companies. These data comprise comparisons of the average profits, liquidity and wealth of the underlying businesses collected by annual voluntary questionnaires.

Considering a tax allowance of € 2,000,000 no wealth tax is levied on these businesses. In all cases net wealth is lower than € 2,000,000, always generating a tax base of zero. Additionally, taking future profits into account and determining a combined tax base consisting of a weighted average of the present value of future

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