

// Christoph Spengel, Leonie Fischer, Christopher Ludwig,
Jessica Müller, Stefan Weck, Sarah Winter

Debt-equity bias should be addressed on national rather than on EU level

The economic crisis following the COVID-19 pandemic has increased the debt levels of corporations and reduced the level of investments. From a tax perspective, interest payments on debt are generally deductible from the corporate tax base, while costs related to equity are not. This debt-equity bias is a deep-rooted issue in today's tax system and inhibits equity-financed investments. From a microeconomic perspective, the bias leads to socially undesirable inefficiencies in capital markets, resulting in welfare losses. From a macroeconomic point of view, high debt levels hinder economic growth.

To provide a stable and supportive tax environment for a sustainable recovery after the corona crisis, the European Commission has published a framework on "Business Taxation for the 21st Century" in May 2021. Besides other (long-term) proposals, a debt equity bias reduction allowance (DEBRA) should be developed to address the tax-induced distortions of debt financing. For a legislative proposal, the European Commission identified three possible concepts: First, a Comprehensive Business Income Tax (CBIT) that



KEY MESSAGES

- The structural tax-induced distortion of financing decisions is undesirable and leads to adverse economic effects.
- A CBIT discourages corporate investments. EU member states would have to decrease their statutory corporate income tax rate to counteract the potential negative investment effects, although the scope is limited due to the COVID-19 pandemic.
- An ACE could stimulate corporate investments. However, it provides new tax planning opportunities for corporations and could result in tax revenues losses for EU member states.
- An ACC is highly sensitive to the notional interest rate. Hence, its effects cannot be determined *a priori*, resulting in great uncertainty.
- To address the debt-equity bias, the overall treatment of financing costs and capital income has to be considered. This involves not only corporate income taxation but also shareholder taxation, which lies in the sole competence of the EU member states.
- We appeal not to address the debt-equity bias by harmonisation at the European level because unilateral adjustments in personal income taxation would be required. Instead, we recommend the implementation of a dual income taxation at the national level.

disallows the tax-deductibility of any financing cost. Second, an Allowance for Corporate Equity (ACE) that provides for the deductibility of notional interest on either all equity or new equity. And third, an alignment of the treatment of debt and equity financing by deducting a notional return on all capital, namely an Allowance for Corporate Capital (ACC).

THE DEBT-EQUITY BIAS IN THE EUROPEAN UNION

The European Commission intends to lower the debt-to-equity ratio by mitigating the tax-induced debt-bias. If the debt-to-equity ratio amounts to 100%, a corporation is equally financed by debt and equity. According to recent OECD statistics, the average debt-to-equity ratio of non-financial corporations in the EU amounts to 90% in 2019, which indicates, on average, a financially stable financing structure. Compared to the US, however, EU resident companies have on average a 30% to 70% higher debt-to-equity ratio (see Graph). Yet, substantial differences across industrial sectors and firm sizes exist. For example, the average debt-to-equity ratio for German small and medium-sized enterprises in 2019 ranged from 189% (“R&D intensive manufacturing”) to 312% (“Construction”), indicating rather financially unstable financing structures.

Substantial differences in debt levels of non-financial corporations exist across countries, industries, and firm sizes

MEAN DEBT-TO-EQUITY RATIO OF NON-FINANCIAL CORPORATIONS IN THE EU AND THE USA



Even if recent statistics on average do not reveal exceptionally high debt-to-equity ratios, the structural tax-induced distortion of financing decisions is undesirable and leads to adverse economic effects. Depending on how corporate investments are financed, different tax burdens arise. To address the bias, the overall treatment of financing costs and capital income has to be considered – hence, corporate and shareholder taxation. The European Commission identifies three possible concepts to address the debt-equity bias, solely focusing on corporate taxation.

Addressing the debt-equity bias requires consideration of corporate and shareholder taxation

CONCEPTS TO ADDRESS THE DEBT-EQUITY BIAS

A Comprehensive Business Income Tax (CBIT)

A CBIT disallows the deductibility of interest expenses and broadens the corporate tax base. Thus, any investment return before interest is taxed. This increases the Cost of Capital (CoC), i.e. the minimum rate of return before taxes required by a shareholder for marginal investments, and the effective average tax rate (EATR) of debt-financed investments. Hence, it may negative-

Comprehensive Business Income Tax discourages corporate investments

ly affect the scale of investment and the location attractiveness of EU member states for profitable investments. This could result in a decline in corporate investments and would contradict the European Commission's intention to foster investments and a fast economic recovery after the COVID-19 crisis.

Due to the broadening tax base, tax revenues for member states c.p. would increase after implementing a CBIT. However, to counteract the potential negative effects on corporate investments, EU member states could decrease their statutory corporate income tax rate. According to the economic impact of the COVID-19 pandemic, the scope is very limited, and negative investment effects might persist.

In addition, due to the disallowance of interest deductibility, all capital income is taxed at the corporate level. Hence, it should be accompanied by the abolition of personal income taxation of dividends, interest, and capital gains at the shareholder level. These necessary adjustments to the personal income taxation are so far neglected by the European Commission but necessary to effectively address the debt-equity bias.

Further adjustments of shareholder taxation are required to align the taxation of capital income

An Allowance for Corporate Equity (ACE)

An ACE grants a notional interest deduction on equity that narrows the corporate tax base. This would decrease the CoC and EATR of investments financed by equity to the level of debt-financed investments. As a result, introducing an ACE regime may foster the scale of investments and positively affect the location attractiveness of EU member states.

While introducing an ACE might positively affect corporate investments, the narrower tax base would c.p. result in tax revenue losses for the member states. This effect is crucial as the COVID-19 crisis has drastically increased government spending and leaves no room for further decreases in state revenues. Furthermore, without efficient anti-avoidance regulations, the introduction of an ACE offers new tax planning opportunities for multinational enterprises.

Lastly, implementing an ACE regime will lead to the introduction of a consumption-based income taxation due to the tax exemption of the notional return on equity. However, since the European Commission has so far ruled out a harmonisation of personal income taxation and assigned this right exclusively to the member states, a harmonised ACE introduction is highly critical.

An ACE could provide new corporate tax planning opportunities and negatively affects tax revenues

An ACE regime would lead to the introduction of a consumption-based income taxation

An Allowance for Corporate Capital (ACC)

An ACC combines the properties of an ACE and a CBIT regime by allowing the deductibility of a single notional return on all capital. Thus, the notional interest rate plays a pivotal role, and the effects of an ACC introduction on corporate investments and the EU member states' tax revenues cannot be determined *a priori*. Like a CBIT or ACE, the introduction of an ACC requires adjustments to shareholder taxation. This intervention in the personal income tax systems of the member states is not intended and therefore has to be rejected on the grounds described above.

Effects of an ACC highly depend on the notional interest rate and cannot be determined *a priori*

ALTERNATIVE SUGGESTIONS TO SUSTAINABLY ADDRESS THE DEBT-EQUITY BIAS

We appeal not to introduce a CBIT, an (incremental) ACE, or an ACC in an EU-wide harmonised way, as all concepts require subsequent adjustments in the personal income tax. This lies in the sole competence of the member states. In addition, it is unclear how the introduction of any proposed measure would interact with the reform proposals to address the challenges of the digital economy by the OECD.

Deny EU-wide initiatives and foster national interventions to address the debt-equity bias

As an effective measure to address the bias on a national level, the dual income tax can be considered. Under this concept, business income is taxed at the corporate level, and any interest payments are deductible. At the personal income level, labour income is subject to progressive income taxation while a flat tax rate, equal to the corporate tax rate, is applied on capital income. Profit distributions that have already been subject to corporate tax and do not exceed a predefined standard rate of return are tax-exempt at the personal level. Distributions exceeding the standard rate of return shall be taxed at a flat tax rate leading to an overall tax burden similar to the progressive income tax rate. Such a dual income tax system establishes not only financing neutrality but also neutrality concerning profit distributions and legal forms. Consequently, a dual income tax system is well suited to fulfil the objectives stated by the European Commission.

Dual income tax as an alternative proposal for reforming corporate and personal income taxation

FURTHER LITERATURE

- De Mooij, R. A., & Devereux, M. P. (2011).** An applied analysis of ACE and CBIT reforms in the EU. *Int Tax Public Finance*, 18, 93-120.
- Finke, K., Heckemeyer, J.H., & Spengel, C. (2014).** Assessing the impact of introducing an ACE regime – A behavioural corporate microsimulation analysis for Germany. ZEW Discussion Paper No. 14-033. Available at: <https://ftp.zew.de/pub/zew-docs/dp/dp14033.pdf> (01.09.2021).
- Hebous, S., & Ruf, M. (2017).** Evaluating the effects of ACE systems on multinational debt financing and investment. *Journal of Public Economics*, 156, 131-149.
- OECD (2020).** OECD.Stat – Financial Indicators – Stocks – Debt to equity ratio of non-financial corporations, https://stats.oecd.org/Index.aspx?DataSetCode=FIN_IND_FBS, accessed on August 9, 2021.
- Spengel, C., Schön, W., Schreiber, U., & Wiegard, W. (2008).** Reforming Income and Company Taxation by the Dual Income Tax. *ZEW Economic Studies* 39, Heidelberg.
- Spengel, C., Heckemeyer, J. H., Nicolay, K., Bräutigam, R., & Stutzenberger, K. (2018).** Addressing the Debt-Equity Bias within a Common Consolidated Corporate Tax Base (CCCTB) – Possibilities, Impact on Effective Tax Rates and Revenue Neutrality. *World Tax Journal*, 10, 165-191.
- Statista (2020).** KfW – Durchschnittliche Eigenkapitalquoten von mittelständischen Unternehmen in Deutschland nach Branchen im Jahr 2019, <https://de.statista.com/statistik/daten/studie/261429/umfrage/eigenkapitalquoten-im-deutschen-mittelstand-nach-branchen/>, accessed on August 9, 2021.



ZEW policy brief

Authors: Christoph Spengel (University of Mannheim, ZEW Mannheim) · Leonie Fischer (ZEW Mannheim and University of Mannheim) · Christopher Ludwig (ZEW Mannheim and University of Mannheim) · Jessica Müller (University of Mannheim) · Stefan Weck (ZEW Mannheim and University of Mannheim) · Sarah Winter (University of Mannheim)

Publisher: ZEW – Leibniz Centre for European Economic Research
L 7, 1 · 68161 Mannheim · Germany · info@zew.de · www.zew.de/en · twitter.com/ZEW_en

President: Prof. Achim Wambach, PhD · Managing Director: Thomas Kohl

Editorial responsibility: Sabine Elbert · sabine.elbert@zew.de

Quotes from the text: Sections of the text may be quoted in the original language without explicit permission provided that the source is acknowledged.

© ZEW – Leibniz-Zentrum für Europäische Wirtschaftsforschung GmbH Mannheim

ZEW