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Tax Rates and Book-Tax Differences in Europe: Evidence form the DiRECT Model

Discussion

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Main assets of the paper

- The paper presents an interesting microsimulation model for tax policy analysis across EU Member States developed by the Joint Research Centre (JRC) of the European Commission
- DiRECT is designed to examine the revenue and distributional effects affecting corporations in the non-financial sector of proposed tax reforms across both national and international tax regimes
- the model provides a standardised framework to analyse firm-year book-tax difference (BTD) intensity measures as well as backward-looking effective corporate tax rates (DiRECT ETRs) across countries
- the model, which now covers nine EU Member States, is funded on a common, publicly accessible database, the Orbis database, which avoids a certain dispersion of results due to methodological differences. The authors addresses the limitations of the Orbis database very thoroughly
  - by supplementing the database with more granular accounting data drawn from national datasets
  - accurately reconstruct the ownership structure of companies for analysing tax consolidation
- multi-period (2016-2019)
- the validity of the model is assessed through in-depth comparisons with external statistics and administrative data at company level

Comments and possible suggestions

- the decision to create a **balanced panel** and to exclude all companies with breaks in the longitudinal sequence of the data implies the **selection of larger companies and the exclusion of young and innovative companies as well as companies with a risky financial structure** often associated with market entry and exit phenomena. In contrast, the use of an unbalanced panel would make it possible to utilise the full heterogeneity of the available information and avoid selection bias. **The use of an unbalanced panel is feasible**, simulation procedures need to be **initialised** depending on the year in which the companies were included in the sample. We suggest to add a discussion of the issue

- The selection of countries covered by the DiRECT model based *on the conformity between financial accounting and tax depreciation practises* might be **too restrictive and prove insufficient** to avoid the need for additional data to model tax depreciation adjustments, such as enhanced depreciation deductions for Italy. We hope that, based on the experience of creating EUROMOD, **solutions will be found to overcome the data shortage**. In principle, the exchange of such information could be limited to the values of imputation parameters associated with a common set of variables (in the source and target datasets).

Comments and possible suggestions

- With regard to the imputation methods for missing data, we propose to assess the dependence of the results on the choice of **additional variables** that could potentially influence the imputation. For instance, focusing on the firm's production structure (labour costs as a percentage of assets, gross operating margin as a percentage of value added, tangibility of assets), the firm's financial structure (cash flow as a percentage of total capital, leverage, indicators of financial distress), etc.

- In the absence of tax return data, information on the ownership structure of companies from the Orbis database enables the **identification of eligible companies into tax groups** according to national group taxation rules. Accordingly, DiRECT distinguishes the simulation of **group taxation** from the tax treatment of individual companies. As group taxation is a crucial component in corporate taxation systems, it would be useful to add information on the **composition of tax groups** and their evolution over time, as well as to provide a measure of the **tax savings associated with being part of a consolidation group**, which may vary from country to country depending on tax rules.

Comments and possible suggestions

- As a sensitivity analysis, when analysing the dispersion of DiRECT ETR company size, it would be useful to check, by limiting the comparison to independent companies, whether the observed pattern might be **influenced by consolidation regimes**, which usually involve a more favourable tax treatment compared to independent, even large, companies.

- In order to take into account the **dynamic components of the tax base**, the entire period of the simulation period (2016-2019) can be taken into account when calculating the DiRECT ETR, which can then be determined as the ratio of the sum of the numerator over the years, i.e. the calculated tax liabilities, to the sum of earnings before tax (EBT) over the years.

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Thank you

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