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# Cross-border activities of multinational enterprises – scope and options for reform

Report on behalf of the German Federal Ministry of Finance

*Non-technical summary*

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# 1 Aims and scope

Multinational enterprises are playing an increasingly important role in the globalized world. This poses challenges to the system of international corporate taxation. In recent years, cases have become public in which multinational enterprises have exploited inconsistencies between national tax laws and loopholes in double taxation agreements to shift profits to low-tax countries and reduce their tax burden. The problems with regard to fair taxation of multinational enterprises are aggravated by the ongoing digitalization of economic activities.

Academic studies analyzing the tax practices of multinational enterprises and the extent of profit shifting have so far either been limited to individual countries, mainly the U.S. (e.g. Dowd et al., 2017; Clausing, 2016), or are based on data suffering from serious drawbacks, so that the results should be interpreted with caution. The aim of this report is to provide a comprehensive and accurate overview of the importance of cross-border activities of domestic and foreign multinational enterprises operating in Germany and to quantify the extent of profit shifting as well as the associated tax revenue loss at the national and global level. In addition, we analyze the channels used by multinational enterprises to shift profits to low-tax countries. Finally, we evaluate the fiscal effects of two currently discussed reform options for the international corporate tax system: the introduction of a global effective minimum tax and a global formulary apportionment regime.

# 2 Data and methodology

To quantify the extent of profit shifting to low-tax countries and the fiscal effects of various reform options, we use information from country-by-country reports (CbC reports). The CbC reports contain information on the global activities of multinational enterprises with consolidated revenues of at least 750 million euros. Included are, inter alia, information about the global distribution of profits, income taxes paid and accrued, the number employees, and tangible assets. The information is aggregated at the level of the countries in which a multinational group operates.

For our analyses, we draw on information from the CbC reports of German as well as foreign enterprises with a tax residence in Germany. Our data cover the years from 2016 to 2019. The dataset we use comprises a total of 8,375 CbC reports from 3,613 multinational enterprises. Compared to other data sources used in the academic literature to estimate the extent of profit shifting, the CbC reports have several advantages. The most important is that the reports provide a complete overview of the worldwide activities of multinational enterprises – including activities in so-called tax havens.

To quantify the extent of profit shifting to low-tax countries, we first estimate how sensitive the corporate profits reported in each country are to differences in corporate tax rates. Based on these estimates, we then determine how important the corporate tax burden is for the global distribution of multinational enterprises ' profits. This allows us to calculate a counterfactual global distribution of corporate profits indicating how the profits of multinational enterprises would be distributed globally if the corporate tax burden was identical in all countries. The difference between the actual profits reported in a country and the counterfactual profits then yields those profits reported in a country for the purpose of reducing the tax burden.

The estimated tax sensitivity of corporate profits also allows us to quantify the impact of introducing a global effective minimum tax. For this purpose, we calculate a global counterfactual profit distribution in the event that the effective corporate tax rate is raised to 15 percent. When doing so, we take into account the planned *carve-out* provision, according to which a portion of profits that can be attributed to real economic activities is exempted from effective minimum taxation.

# 3 Results

According to our estimates, the large multinational enterprises included in our dataset shift about 16 percent of their profits (about 240 to 280 billion euros per year) to low-tax countries for the purpose of reducing their tax burden. For Germany, the loss of tax base due to tax-motivated profit shifting by large enterprises amounts to between 10 and 13 billion euros per year. As a result, the German government loses tax revenue of between 1.6 and 2.6 billion euros annually. The exact value depends, inter alia, on the assumptions made regarding the counterfactual global distribution of corporate profits – i.e., how corporate profits would be distributed globally if there was no tax-motivated profit shifting.

Our analyses suggest that profits are shifted to low-tax countries in particular through the strategic location of subsidiaries that provide inputs and services for affiliated companies. Intangible assets, internal financial services and holding activities play a particularly important role in this context. Low-tax countries that host such activities report significantly higher profits than could be explained by real economic activities.

With regard to reform proposals for the system of international corporate taxation, we pay particular attention to the effects of introducing a global effective minimum tax. Our estimates show that Germany would benefit from the introduction of a global minimum tax. Disregarding the effects of possible behavioral adjustments on the part of the affected enterprises and low-tax countries, an effective minimum tax rate of 15 percent results in estimated additional tax revenues of 5.1 to 6.7 billion euros per year for Germany. The exact amount depends on whether all profits of multinational enterprises that are effectively taxed at a rate of less than 15 percent are subject to the global effective minimum tax or whether a so-called *carve out* is applied. *Carve outs* mean that the tax base of the global effective minimum tax is reduced by an amount aiming to reflect real economic activities in the residence country. It is proposed to reduce the tax base by a fixed percentage of the value of tangible assets and payroll. If we also take into account that the introduction of a global effective minimum tax would lead to a reduction in tax-motivated profit shifting, the revenue effect for Germany would increase; if, on the other hand, low-tax countries react by raising their tax rates, the revenue effect for Germany may be significantly lower, but the actual goal of the global effective minimum tax would still be achieved.

Whether Germany would benefit from a formula-based apportionment of the profits of large multinational enterprises depends on the apportionment factor that is chosen. While a profit split based on employees or payroll would increase tax revenues, a profit split based solely on the value of tangible assets could result in a loss of tax revenue for Germany.