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Working Paper

Expected burdens of the global minimum tax: Firm evidence

arqus Discussion Paper, No. 315

Provided in Cooperation with:
arqus - Working Group in Quantitative Tax Research

Suggested Citation: Baumgart, Eike; Blaufus, Kay; Paczkowski, Katharina (2026) : Expected burdens of the global minimum tax: Firm evidence, arqus Discussion Paper, No. 315, Arbeitskreis Quantitative Steuerlehre (arqus), Berlin

This Version is available at:
https://hdl.handle.net/10419/340834

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Arbeitskreis Quantitative Steuerlehre
Quantitative Research in Taxation – Discussion Papers

Eike Baumgart, Kay Blaufus, Katharina Paczkowski

Expected Burdens of the Global Minimum Tax: Firm Evidence

arqus Discussion Paper No. 315
April 2026

www.arqus.info
ISSN 1861-8944

Expected Burdens of the Global Minimum Tax: Firm Evidence

Eike Baumgart* Kay Blaufus† Katharina Paczkowski‡

Abstract

We provide firm-level evidence on expected tax burdens under the OECD's Pillar Two minimum tax using hand-collected financial statement disclosures from listed multinational groups headquartered in countries where Pillar Two has already taken effect. Our setting exploits a common reporting framework that requires in-scope firms to assess and disclose material tax liabilities under the global minimum tax, allowing us to study the early incidence of the reform across firms and jurisdictions. We find that expected burdens are highly concentrated: although most firms disclose exposure to Pillar Two, only 22.5% recognize positive global minimum tax liabilities, and a few firms account for much of the total reported burden. Cross-sectional variation in global minimum tax liabilities is strongly associated with firm exposure to low-taxed foreign income and a group's international presence. At the same time, substantial cross-country differences remain, despite harmonized rules and accounting standards. These differences are positively associated with country-level tax enforcement. Our results suggest that the early expected incidence of Pillar Two is considerably less uniform than its common legal framework might suggest.

Keywords: Global Minimum Tax – Pillar 2 – Corporate Taxation – International Taxation – Tax Enforcement

JEL Codes: H25 – H26 – F23

Acknowledgements: Eike Baumgart and Kay Blaufus gratefully acknowledge financial support by the German Research Foundation (DFG): Collaborative Research Center (SFB/TRR) Project-ID 403041268, TRR 266 Accounting for Transparency.

Word count (main text): 5,762

Number of tables/figures (main text): 2

*Faculty of Economics and Management, Institute of Business Taxation, Leibniz University Hanover, Germany. E-mail: baumgart@steuern.uni-hannover.de. ORCID: 0009-0001-9316-683X.

†Faculty of Economics and Management, Institute of Business Taxation, Leibniz University Hanover, Germany. Corresponding author. E-mail: blaufus@steuern.uni-hannover.de. ORCID: 0000-0001-9010-3772.

‡Faculty of Economics and Management, Institute of Business Taxation, Leibniz University Hanover, Germany. E-mail: paczkowski@steuern.uni-hannover.de. ORCID: 0009-0008-7401-3732.

1 Introduction

The introduction of a global minimum tax under Pillar Two represents one of the most significant reforms of international corporate taxation in decades. By imposing a minimum effective tax rate of 15% on large multinational enterprises, the reform aims to curb tax competition and limit profit shifting (Council of the European Union, 2022). Given its global scope and binding nature, Pillar Two is expected to affect firms' tax burdens, investment decisions, and allocations of economic activity across jurisdictions (e.g., Hanappi and Gonzalez Cabral, 2022; Gómez-Cram and Olbert, 2023).

Recent empirical research on the global minimum tax (GMT) is beginning to examine its economic consequences from different perspectives. One strand of research studies capital market reactions to the reform. Gómez-Cram and Olbert (2023) use an event-study design and document that stock prices of exposed firms decline around key policy announcements, suggesting that investors anticipate non-negligible tax burdens. A second strand focuses on implementation and compliance. Bray et al. (2025) provide survey-based evidence that multinationals expect substantial compliance costs associated with Pillar Two. Recent work also examines Pillar Two disclosures in annual reports. Dekker and Kriek (2024) study 100 large listed European firms and document substantial heterogeneity in how they describe and quantify their expected exposure to Pillar Two. Closest to our setting, Koch and Oblinger (2025) analyze German multinationals and document early evidence on the expected impact of the GMT using firm information. Finally, recent studies use administrative data and simulation-based approaches to document the prevalence of low effective tax rates among large firms, to examine the revenue effects of the GMT and its implications for profit shifting, and to analyze its effects on effective tax levels (e.g., Bachas et al., 2025; Boukal et al., 2026; Gschossmann et al., 2025).

We examine the level and distribution of GMT liabilities of listed multinational groups and analyze how these liabilities vary across firms and countries, despite harmonized tax rules and a common reporting framework. We use a hand-collected dataset from firms' financial statements and exploit harmonized reporting requirements under International Financial Reporting Standards (IFRS). Because firms within the scope of Pillar Two must have assessed the expected tax effects under the new regime in 2024 and would have disclosed quantitative amounts, where material under IAS 12.88B, these reported amounts provide comparable, firm-level measures of Pillar Two-related tax effects. They are referred to as GMT liabilities throughout this paper.

Our sample is constructed at the level of ultimate parent entities of listed corporate groups. We restrict the sample to firms headquartered in countries where the relevant Pillar Two rules had already taken effect by 2024, so that reported amounts reflect the group's expected tax position under the new regime and the corresponding disclosure requirements are binding. We further require that firms meet the Pillar Two size threshold, defined as revenues of at least EUR 750 million in at least two of the previous four years. To ensure comparability of financial statement disclosures, we restrict the sample to firms reporting under IFRS. The resulting sample comprises 1,659 listed firms across 28 countries.

We find that GMT liabilities are highly concentrated across firms. Based on our review of firms' annual reports, 85.2% of firms disclose information related to Pillar Two. However, only 22.5% recognize positive GMT liabilities. In our sample, these liabilities sum to EUR 3.86 billion. Among firms with positive liabilities, the mean recognized amount is EUR 10.34 million, compared to a median of EUR 1.64 million, and the 10 most affected firms account for 44.36% of the aggregate reported GMT liability. Even after a simple adjustment for sample coverage, the implied aggregate amount of GMT

liabilities remains well below existing estimates of additional tax revenues under Pillar Two (Brun et al., 2025; Barake et al., 2021).

We further document substantial heterogeneity across industries. Firms in the financials sector are most likely to recognize a positive GMT liability, with 32.5% reporting a positive amount, compared to 22.5% in the full sample. In aggregate terms, financials, healthcare, and technology account for 66.2% of total reported GMT liabilities, although these sectors represent only 28.84% of total revenues in our sample.

We also find substantial cross-country heterogeneity in reported GMT liabilities. The distribution of reported GMT liabilities is highly concentrated across headquarters countries. The United Kingdom, Canada, and South Korea alone account for 53.3% of total reported liabilities, although firms headquartered in these countries represent only 31.55% of total revenues in our sample. Stronger country-level tax enforcement is positively associated with both the likelihood of recognizing positive GMT liabilities and the magnitude of reported amounts. These results suggest that institutional differences remain relevant for the early incidence of Pillar Two, despite harmonized tax rules and a common reporting framework.

This paper makes two contributions to the emerging literature on the GMT. First, it provides firm-level evidence on GMT liabilities from a broad international sample of listed multinational groups. Second, it highlights the relevance of institutional differences for the early incidence of Pillar Two, as reported liabilities are positively associated with country-level tax enforcement. These findings also have policy implications, as they suggest that, even under harmonized rules, otherwise similar firms may face different reported GMT liabilities across jurisdictions. They also point to a possible mismatch between the narrow concentration of reported liabilities and the broader compliance burdens documented in recent survey-based research (Bray et al., 2025).

The remainder of the paper is organized as follows. Section 2 provides a brief institutional background on the GMT. Section 3 describes the data and research design. Section 4 presents the empirical results. Section 5 concludes and discusses implications.

2 Institutional Background

Pillar Two was introduced to limit profit shifting and reduce downward tax competition by ensuring a minimum effective tax rate of 15% for large multinational groups with revenues of at least EUR 750 million in at least two of the previous four years(OECD, 2021, 2023). More than 135 jurisdictions agreed to the framework in 2021, although only a subset had implemented at least one of its mechanisms by 2024. Pillar Two consists of three interrelated rules. The central rule is the Income Inclusion Rule (IIR), under which top-up tax is generally collected at the level of the parent jurisdiction when the effective tax rate in a jurisdiction in which the group has subsidiaries or permanent establishments falls below 15%. In that case, the top-up tax corresponds to the difference between the effective tax rate in that jurisdiction and the 15% rate. The Qualified Domestic Minimum Top-up Tax gives source countries priority to levy this top-up tax domestically. If low-taxed income is not fully captured by the Qualified Domestic Minimum Top-up Tax or the IIR, the Undertaxed Profits Rule allows other jurisdictions in which the group operates to collect the remaining top-up tax (OECD, 2021). In the first implementing jurisdictions, these rules took effect in 2024, implying that firms' consolidated financial statements for that year should reflect the expected current tax effects from Pillar Two.

A central feature of Pillar Two is its attempt to create a harmonized framework for taxing low-taxed multinational income across jurisdictions. The tax calculation is based on the accounting standard used in the group's consolidated financial statements (OECD, 2021), which creates a common starting point for determining effective rates and

top-up taxes. For our study, this feature is important because it allows us to compare reported GMT liabilities across firms within a broadly common framework. Since our aim is to examine tax liabilities at the level of multinational groups, we focus on firms headquartered in countries where the relevant Pillar Two rules were already in effect in 2024.

Although Pillar Two can, in principle, be applied using different accounting standards, IFRS is particularly useful for our setting because it provides an explicit disclosure basis for expected Pillar Two effects. Under IAS 12.88B, firms must disclose current tax expense related to Pillar Two where material,[1] while other major accounting standards, such as US GAAP or Chinese GAAP, have not introduced comparable explicit disclosure requirements. This difference matters for our study because it directly affects the availability and comparability of firm information on GMT liabilities. We therefore focus on firms reporting under IFRS.

3 Data and Research Design

3.1 Data and Sample

To construct our sample, we start with all publicly listed firms in LSEG Workspace (59,464 firms) and then apply a sequence of exclusions. First, to avoid potential double-counting of accounting information from multiple reporting entities within the same group, we exclude all firms that are not the ultimate parent entity of their corporate group (13,803 firms).

Second, we exclude firms headquartered in countries where the IIR had not come into effect by 2024 (28,244 firms). Our analysis uses consolidated financial statements and

[1]Because IAS 12.4A provides a temporary exception from recognizing deferred taxes related to Pillar Two, reported Pillar Two amounts in our setting reflect current taxes only. Deferred taxes therefore do not dilute the reported provision.

aims to capture the group's expected Pillar Two tax position. Because the Undertaxed Profits Rule was not yet effective in 2024 and Qualified Domestic Minimum Top-up Tax amounts are creditable under the IIR, restricting the sample to firms headquartered in IIR-implementing jurisdictions ensures that reported liabilities reflect the expected tax position of the multinational group as a whole.[2] Third, we exclude firms that do not meet the Pillar Two size threshold, defined as revenues of at least EUR 750 million in at least two of the previous four years (14,953 firms).

Fourth, we exclude firms that do not report under IFRS (780 firms). This ensures that firms are subject to the IAS 12 Pillar Two disclosure requirements (IAS 12.88A–88D), including disclosure of current tax expense related to Pillar Two taxes and note disclosures on the exposure when legislation is enacted or substantively enacted. Restricting the sample to IFRS reporters therefore improves the comparability of firm disclosures on GMT liabilities.

As firms report their Pillar Two-related disclosures in the notes to the financial statements rather than in structured database fields, we manually collected this information from 2024 consolidated annual reports.[3] To assemble these reports, we retrieved financial statements from LSEG Workspace and supplemented missing reports with filings from EDINET (Japan), OpenDART (Korea), and SEDAR (Canada). Where multiple reports were available for the same firm, we used custom parsing scripts to identify the relevant report containing the consolidated financial statements. The final Pillar Two-related amount used in the analysis was extracted from the annual reports with the support

[2]Although firms headquartered in non-implementing jurisdictions may still be indirectly affected through foreign subsidiaries, their reported amounts do not provide a comparable measure of the group's overall Pillar Two liabilities in 2024.

[3]To ensure that the annual reports referred to the financial year in which the GMT first became effective, we restricted the sample to reports with financial year-end dates between 31 December 2024 and 30 December 2025.

of Google's NotebookLM.[4] Firms' financial statement data were obtained from LSEG Workspace.

Finally, we exclude firms for which we could not obtain an annual report from any of our sources or for which key variables were missing from LSEG Workspace (25 firms). This results in a final sample of 1,659 public ultimate parent entities in 28 countries. The resulting sample provides a comparable set of firm disclosures on GMT liabilities, but it does not cover unlisted firms and firms reporting under other accounting standards.

3.2 Variable Measurement and Empirical Specification

We distinguish between the extensive and intensive margins of reported GMT liabilities. For the full sample, we use the binary outcome variable $GMT > 0$, which equals one if a firm reports positive GMT liabilities and zero otherwise. Conditional on reporting positive GMT liabilities, we examine the magnitude of the reported amount using two alternative measures. *LogGMT* is defined as the natural logarithm of reported GMT liabilities measured in euros. *Log(GMT/PBT)* is defined as the natural logarithm of GMT liabilities scaled by profit before tax (PBT), linking this measure to the GMT-induced change in the effective tax rate.

Our baseline specification takes the following general form:

$$Y_i = \alpha + \boldsymbol{\beta}' FirmVariables_i + \delta_c + \gamma_j, \tag{1}$$

where Y_i denotes one of the dependent variables described above, $FirmVariables_i$ is a vector of firm-level explanatory variables, δ_c denotes headquarters-country fixed effects,

[4]To validate the accuracy of the information extracted by NotebookLM, we manually reviewed a random sample of 150 reports, corresponding to approximately 9% of the population of 1,659 reports. The sample included 34 reports from firms with positive GMT liabilities as well as 116 from firms without such liabilities. We detected no extraction errors. Under random sampling without replacement, the probability of observing zero errors in a sample of this size if the true population error rate were 2% is 3.85% (hypergeometric distribution). We therefore reject a true error rate of 2% or more at the 5% level.

and γ_j denotes industry fixed effects. For the binary outcome *GMT>0*, we estimate a logit model; for the continuous outcomes *LogGMT* and *Log(GMT/PBT)*, we estimate linear models. All specifications use the same set of firm-level variables, which can be grouped into measures of GMT exposure, proxies for external monitoring, and standard firm controls.

Among the GMT exposure variables, *ForeignLowTaxBenefit* proxies for the tax benefit arising from low-taxed foreign income. We adapted this measure from Gómez-Cram and Olbert (2023) and applied it to an international sample of IFRS reporters. Specifically, we calculate the three-year average difference between a firm's reported tax expenses and the amount it would have paid if the statutory corporate tax rate of its headquarters country had been applied to its profit before tax and then scale this figure by total assets. *TaxHavenShare* captures the share of a firm's subsidiaries located in tax havens relative to its total number of subsidiaries. We follow the tax haven classification of Fuest et al. (2022, p. 457).[5] *NumSubsidiaryCountries* captures the number of distinct countries in which a group maintains subsidiaries and thus proxies for the breadth of the group's international presence and, with it, the likelihood that at least some jurisdictions are subject to top-up taxation under Pillar Two. *IntangibleAssets*, defined as intangible assets scaled by total assets, and *R&D*, measured as research and development expense scaled by total assets, capture the extent to which firms rely on intangible assets and innovation-intensive business models. These firms typically have greater scope to shift income and intellectual property to low-tax jurisdictions (e.g., Dischinger and Riedel, 2011; Beer and Loeprick, 2015).[6]

[5]As a result, the following countries are classified as tax havens: Antigua and Barbuda, Bahamas, Bahrain, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Cook Islands, Curacao, Cyprus, Gibraltar, Grenada, Guernsey, Hong Kong, Isle of Man, Jersey, Liberia, Liechtenstein, Luxembourg, Montserrat, Panama, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Singapore, Sint Maarten (Dutch part), Switzerland, Turks and Caicos Islands, and Vanuatu.

[6]Missing values for intangible assets and research and development expenses are set to zero in *IntangibleAssets* and *R&D*, respectively.

To capture external monitoring, we include *Big4*, a dummy variable equal to one if the firm is audited by a Big Four audit firm and zero otherwise. The Big Four indicator is commonly used as a proxy for audit quality (Che et al., 2020). To capture external monitoring by capital markets, we include *AnalystCoverage*, measured as the number of sell-side analysts covering the firm's stock. Analyst coverage is commonly interpreted as reflecting the intensity of external monitoring and information production around the firm (Chen et al., 2015).

Finally, we control for a standard set of firm characteristics. *DebtRatio* is defined as total debt divided by total assets and captures leverage. *ROA* is defined as profit before tax divided by total assets and measures profitability. *Loss* is a dummy equal to one if the firm reports a loss in the respective year. *LossCarryforward* is a dummy indicating whether the firm may have loss carryforwards from prior periods. As a size proxy, we include *LogTotalAssets*, defined as the natural logarithm of total assets.

While the baseline specification controls for unobserved heterogeneity across headquarters countries through headquarters-country fixed effects, it does not allow us to examine which country characteristics are associated with cross-country differences in GMT liabilities. We therefore estimate a second set of specifications in which observable country-level variables replace headquarters-country fixed effects:

$$Y_i = \alpha + \boldsymbol{\beta}' \mathit{FirmVariables}_i + \boldsymbol{\theta}' \mathit{CountryVariables}_c + \gamma_j. \tag{2}$$

The country-level variables can be grouped into measures of tax environment, financial reporting environment, and broader institutional and country characteristics.

Among the tax environment variables, *TaxEnforcement* is a principal-component-based factor constructed from three variables obtained from the International Survey on Revenue Administration (ISORA) database. It combines (i) the number of full-time equivalent staff in audit, investigation, and debt collection per capita; (ii) the number

of total audits performed per capita; and (iii) additional assessments raised through all audits as a percentage of tax collections. It captures the strength of tax enforcement at the country level.[7] *TCICrossBorderScore* is the Cross-Border Rules Score from the 2025 International Tax Competitiveness Index developed by Tax Foundation (2025). This variable captures the extent to which a country's cross-border tax rules are designed in a competitive and internationally attractive manner. *HighTaxMoraleShare* measures tax morale at the country level. It is defined as the share of respondents in the Integrated Values Surveys (IVS) who state that tax evasion is never justifiable, corresponding to a value of one on a 10-point Likert scale (EVS, 2022; Haerpfer et al., 2024).

IFRSAudit is our proxy for a country's financial reporting environment. It is based on the audit score developed by Brown et al. (2014), which captures cross-country differences in the institutional environment in which public company auditors operate.

Finally, we control for a set of broader institutional and economic country characteristics obtained from the World Bank. *FDItoGDP* measures net foreign direct investment relative to GDP. *LogGDPperCapitaPPP* is the natural logarithm of GDP per capita in purchasing power parity terms. *RuleOfLaw* is the World Governance Indicator for rule of law, capturing perceptions of the extent to which agents have confidence in and abide by the rules of society.

4 Results

4.1 Descriptive statistics

[Table 1 about here.]

[7] As a robustness check, in separate regressions, we replaced *TaxEnforcement* with its three components in the models that include country characteristics. While the first and second components are positively and significantly associated with all three GMT outcomes, the third is significant only for the extensive margin. The detailed regression results are reported in Online Appendix Table A2.

Table 1 reports descriptive statistics for our three outcome variables by industry and headquarters country. In the full sample, 22.5% of firms recognize positive GMT liabilities. Conditional on liabilities being recognized, the average GMT amount is EUR 10.3 million, while the median is EUR 1.6 million. The average ratio of GMT to profit before tax equals 1.23%, compared to a median of 0.34%. Interpreted as a GMT-induced change in the effective tax rate, this corresponds to an increase of approximately 1.23 percentage points at the mean and 0.34 percentage points at the median. The substantial difference between the means and medians of both variables indicates a strongly right-skewed distribution, suggesting that a few firms are responsible for much of the reported liabilities. Specifically, 90% of GMT liabilities in our sample are borne by only 5.7% (n = 95) of firms, and the 10 most affected firms account for over 44% of total GMT liabilities.

Summing all reported GMT liabilities in our sample yields total of only EUR 3.86 billion. To put this figure into perspective, we conduct a simple back-of-the-envelope exercise that addresses two questions. First, how much of the relevant population of firms in our sample countries is covered by our data? Second, how do the reported GMT liabilities in our sample compare to the additional corporate tax revenues expected under Pillar Two?

Because our sample does not cover the full population of multinational groups affected by Pillar Two, we first use OECD Country-by-Country Reporting (CbCR) statistics to estimate its economic coverage (OECD, 2025a).[8] Specifically, for each headquarters country represented in our sample, we compare the firms' aggregate revenues with the corresponding *unrelated party revenues* of CbCR-reporting multinational groups in the same parent jurisdiction.[9] Across the jurisdictions covered by our sample, firms account for EUR

[8]Although the revenue threshold for CbCR is not identical to the threshold relevant for Pillar Two, the OECD notes that the two are similar (OECD, 2025b).

[9]To ensure comparability, we use the most recent year of CbCR statistics available for each jurisdiction. For all but one country in our sample, this is 2022; for Romania, the most recent available statistics are from 2021. We then match these values to the corresponding 2022 firm data from our sample.

14,862.7 billion in revenues, compared to EUR 29,076.0 billion in the CbCR statistics, implying revenue coverage of 51.1%. Applying this coverage rate to the total reported GMT liabilities in our sample yields an implied total of EUR 7,545.0 million for the broader set of affected firms in the countries covered by our sample.

We then compare this implied amount with estimates of additional corporate income tax revenues under Pillar Two. To that end, we rely on Brun et al. (2025) for EU countries and on Barake et al. (2021) for non-EU countries.[10] Aggregating across all countries represented in our sample yields expected additional tax revenues of EUR 23,979 million.[11] Thus, even after adjusting for sample coverage, the implied aggregate amount of GMT liabilities in our data reaches only about one-third of existing estimates of additional tax revenues under Pillar Two. While our data capture only reported and economically material liabilities, this measurement feature alone is unlikely to account for the full gap.

Panel A shows substantial heterogeneity across industries. On the extensive margin, the share of firms with positive GMT liabilities ranges from 4.35% in real estate and 8.33% in utilities to 25–27% in energy, healthcare, and technology, and 32.50% in financials. A Pearson χ^2 test rejects the null of equal proportions across industries ($p < 0.001$), indicating that the likelihood of recognizing a positive GMT liability differs systematically across sectors.[12]

On the intensive margin, both means and medians point to substantial cross-industry differences in the absolute GMT amount. Healthcare, financials, and energy exhibit the highest typical GMT levels, with median GMT amounts of EUR 6.47 million, EUR 5.43 million, and EUR 2.77 million, respectively, while industrials and consumer non-

[10]For the latter, we use the estimates reported by Barake et al. (2021) for a 15% GMT with transitional substance-based carve-outs under the study's Year 1 scenario, based on carve-outs of 8% of tangible assets and 10% of payroll.

[11]Online Appendix Table A1 reports the underlying country-level figures for sample coverage as well as reported and expected Pillar Two tax effects by headquarter country.

[12]For the statistical tests on extensive- and intensive-margin outcomes, we restrict the respective samples to industries with at least 10 observations. As in Table 1, for the GMT/PBT measure, we also exclude loss firms.

cyclicals show much lower medians of EUR 0.73 million and EUR 0.35 million. Mean GMT amounts display a similar pattern but are markedly higher than the corresponding medians in most industries, consistent with a strongly right-skewed distribution. A Kruskal–Wallis test confirms that the cross-industry differences in absolute GMT amounts are statistically significant ($p < 0.001$).

Differences also remain visible when scaling the GMT liabilities by profit before tax. Based on median values, technology (0.60%), healthcare (0.58%), and energy (0.43%) show the highest GMT-to-PBT ratios, while utilities (0.08%), industrials (0.20%), and consumer non-cyclicals (0.21%) exhibit comparatively lower values. Mean values broadly support this pattern. Consistent with this, a Kruskal–Wallis test rejects equality across industries for the scaled measure as well ($p = 0.055$).

Panel B reveals even more pronounced heterogeneity across headquarters countries. On the extensive margin, the share of firms reporting a positive GMT liability ranges from 0.00% in Turkey and 8.62% in Australia to 43.64% in Germany, 47.62% in Austria, and 53.85% in Greece. A Pearson χ^2 test strongly rejects the null of equal proportions across countries ($p < 0.001$), indicating substantial cross-country differences in the likelihood of recognizing positive GMT liabilities.[13]

On the intensive margin, both means and medians suggest marked cross-country variation in the absolute GMT amount. Although the gap between means and medians is sizable, both indicate comparatively high GMT liabilities in countries such as Canada, the United Kingdom, France, Italy, and Japan. A Kruskal–Wallis test confirms that the cross-country differences in absolute GMT amounts are statistically significant ($p < 0.001$). A similar picture emerges for GMT scaled by profit before tax. Based on mean values, the highest GMT/PBT ratios are observed in Canada, Japan, and the United King-

[13]Consistent with our approach in the analysis of cross-industry differences, for the statistical tests on extensive- and intensive-margin outcomes, we restrict the respective samples to countries with at least 10 observations. As in Table 1, for the GMT/PBT measure, we also exclude loss firms.

dom. Median values point to a broadly similar pattern, with comparatively high ratios in Canada, Italy, Belgium, France, and Japan. Consistent with this descriptive evidence, a Kruskal–Wallis test rejects equality across countries for the GMT/PBT measure as well ($p < 0.001$).

4.2 Regression results

[Table 2 about here.]

Columns (1) to (3) of Table 2 report the regression results for the baseline specifications with headquarters-country and industry fixed effects. The results show that the variables capturing expected GMT exposure are the most consistent determinants of GMT liabilities across specifications.[14]

Starting with the extensive margin in Column (1), *ForeignLowTaxBenefit*, *TaxHavenShare*, and *NumSubsidiaryCountries* are all positively and significantly associated with the likelihood of reporting positive GMT liabilities. Firms with a larger estimated benefit from low-taxed foreign income, a greater share of subsidiaries in tax havens, and a broader international footprint are therefore more likely to recognize GMT liabilities. Among the additional GMT exposure-related variables, *IntangibleAssets* also relates positively and significantly to *GMT>0*, whereas *R&D* does not.

Turning to the intensive margin, Columns (2) and (3) show that *ForeignLowTaxBenefit* and *NumSubsidiaryCountries* remain positively associated with the magnitude of reported GMT liabilities, both in absolute terms and relative to profit before tax. By contrast, *TaxHavenShare* is no longer statistically significant, once the sample is restricted to firms reporting positive GMT liabilities. *IntangibleAssets* is positively associated with

[14]To assess multicollinearity, we compute variance inflation factors (VIFs) for all regression specifications reported in Table 2. In none of the models does any predictor exhibit a VIF above 5, suggesting that multicollinearity is not a material concern in our setting.

LogGMT but not with *Log(GMT/PBT)*, and *R&D* remains statistically insignificant in all specifications.

The results for the external-monitoring proxies are weaker. *AnalystCoverage* is not significantly associated with the probability of reporting GMT liabilities but relates positively to the magnitude of reported liabilities in Columns (2) and (3). *Big4* is statistically insignificant throughout.

Among the control variables, *LogTotalAssets* is the most robust predictor, indicating that larger firms are more likely to report GMT liabilities and report larger absolute amounts. In Column (3), however, the coefficient becomes negative, implying that although larger firms report higher absolute GMT liabilities, these amounts are smaller relative to profit before tax. In addition, *ROA* is strongly negatively associated with *Log(GMT/PBT)*. *Loss* relates negatively to the probability of reporting positive GMT liabilities, while *LossCarryforward* relates weakly but positively to the extensive margin only.

Joint-significance tests for the fixed effects indicate that both headquarters-country and industry effects are jointly significant across all three baseline specifications. Headquarters-country fixed effects are highly significant throughout ($p < 0.001$ in all three columns). Industry fixed effects are also jointly significant, although more weakly so for the extensive-margin specification in Column (1) ($p = 0.072$) than for the intensive-margin specifications in Columns (2) and (3) ($p < 0.001$ in both cases). These results suggest that, even controlling for firm GMT exposure, both cross-country and cross-industry heterogeneity remain relevant for the likelihood and magnitude of GMT liabilities. At the same time, the baseline results show that the most consistent firm-level predictors are measures of international tax exposure rather than the external-monitoring proxies. In particular, *ForeignLowTaxBenefit* and *NumSubsidiaryCountries* are consistently associ-

ated with GMT liabilities across specifications, while *TaxHavenShare* mainly matters for the extensive margin.[15]

The results of the models replacing the country fixed effects with several country characteristics are presented in Columns (4) to (6) of Table 2. Most importantly, *Tax-Enforcement* is positively and significantly associated with all three outcome variables. Firms headquartered in countries with stronger tax enforcement are more likely to report positive GMT liabilities and, conditional on recognition, report larger liabilities both in absolute terms and relative to profit before tax. This suggests that, even under a regime intended to establish a uniform minimum level of taxation across jurisdictions, differences in national tax enforcement continue to shape both whether firms recognize GMT liabilities and the size of those liabilities.

The remaining tax-environment variables show a more mixed picture. *TCICrossBorderScore* relates positively and significantly to *GMT>0* but not to the intensive-margin outcomes. By contrast, *HighTaxMoraleShare* is statistically insignificant throughout.

For the financial reporting environment, *IFRSAudit* is negatively associated with the probability of reporting positive GMT liabilities but positively with both *LogGMT* and *Log(GMT/PBT)*. The opposing effects of audit enforcement on the likelihood and magnitude of reported GMT liabilities are consistent with differences in the reliability of measurement. While Pillar Two gives rise to a legal obligation, its quantification involves considerable complexity and uncertainty, particularly in the early phase of implementation. Higher audit enforcement may therefore raise the threshold for what is considered a sufficiently reliable estimate for financial reporting purposes, reducing the likelihood of

[15] As a robustness check, we replace *ForeignLowTaxBenefit* with various one-year-lagged effective tax rate (ETR) measures: the book ETR (income tax expense divided by PBT), the cash ETR (income taxes paid divided by PBT), and the current ETR (current income tax expense divided by PBT). We also consider the three-year volatility of the book ETR. All ETRs are winsorized at 0 and 1 and treated as missing when both the numerator and denominator are negative in a given year. Across these specifications, only the lagged book ETR is consistently negatively associated with the GMT outcomes, while the other ETR measures are not statistically significant.

reporting smaller or less certain liabilities. At the same time, conditional on reporting, firms may measure more conservatively, resulting in larger recognized amounts.

The broader country controls play a comparatively limited role. *FDItoGDP*, *LogGDPperCapitaPPP*, and *RuleOfLaw* are not statistically significant in any of the specifications. Hence, the cross-country patterns in GMT liabilities appear to relate more closely to the tax and financial reporting environments than to macroeconomic and institutional characteristics.

The coefficients on the firm-level variables remain broadly stable relative to the baseline specifications in Columns (1) to (3). *ForeignLowTaxBenefit* continues to be strongly positively associated with the extensive margin, although its coefficients on the intensive margin lose statistical significance. *TaxHavenShare* remains relevant only for the probability of reporting GMT liabilities, and *NumSubsidiaryCountries* continues to be positively associated with all three outcome measures, albeit not significantly with *Log(GMT/PBT)*. *IntangibleAssets* remains positively related to *GMT>0* but no longer reaches conventional significance levels for the amount regressions. Overall, the inclusion of observable country characteristics leaves the main firm patterns largely intact, while highlighting tax enforcement as the most important country-level correlate of GMT liabilities.

5 Conclusion

This paper provides the first firm-level evidence on expected tax burdens under the OECD's Pillar Two reform based on newly available financial statement disclosures. Using data on listed multinational groups, we document how the GMT translates into firm-reported liabilities at the onset of implementation.

We obtain three main findings. First, reported GMT liabilities vary systematically with national tax enforcement, despite harmonized tax and reporting rules. This suggests that the early incidence of the reform remains partly implementation-dependent and may therefore fall short of creating a fully level playing field across jurisdictions.

Second, GMT liabilities are highly concentrated among just a few firms. While this pattern is consistent with the policy's objective of targeting multinational enterprises with substantial low-tax exposure, it also suggests that the burden of the reform is less widespread across firms than often implied in the policy debate. A few firms account for much of reported liabilities, indicating that the firm burden of Pillar Two is concentrated.

Third, firm-reported GMT liabilities fall substantially below existing estimates of additional tax revenues under Pillar Two, at least in the initial phase of implementation. Even after adjusting for sample coverage, the implied aggregate amount of reported GMT liabilities remains far below these estimates, suggesting that the estimates may have overstated firm burdens. This gap is unlikely to be explained solely by immaterial liabilities not captured in financial statement disclosures.

Our findings also speak to the broader cost-benefit debate on Pillar Two. Recent survey-based evidence for EU-headquartered groups points to substantial one-off and recurring compliance costs, with estimated aggregate one-off costs of about EUR 1.2 billion and recurring annual costs of EUR 517 million (Bray et al., 2025). Viewed against our evidence on the concentration of reported liabilities, these estimates suggest that administrative burdens may be distributed more broadly than reported tax liabilities. This raises the possibility of a mismatch between the breadth of compliance burdens and the relatively narrow set of firms generating substantial reported liabilities.

Although our focus on IFRS-based disclosures provides a key advantage by offering the first firm-level estimates of Pillar Two liabilities, our work also has limitations. Financial statement disclosures capture reported and thus economically material liabilities,

implying that small positive amounts below materiality thresholds may not be observed. At the same time, this ensures that our analysis focuses on economically relevant tax burdens and can be interpreted as providing a lower bound on firm liabilities without affecting the observed concentration patterns.

Furthermore, our sample is restricted to listed multinational groups reporting under IFRS. While this may limit the representativeness of our results, our sample covers more than half of the total revenues of affected firms, suggesting that our findings capture a substantial share of the aggregate economic activity relevant for Pillar Two.

Taken together, our results show that, despite its formal harmonization, the early economic incidence of Pillar Two is uneven across firms and jurisdictions. Understanding these differences is important both for evaluating the reform's initial effects and for assessing how its tax burdens compare with the broader compliance burdens it creates.

Statements and Declarations

Funding

Eike Baumgart and Kay Blaufus gratefully acknowledge financial support by the German Research Foundation (DFG): Collaborative Research Center (SFB/TRR) Project-ID 403041268, TRR 266 Accounting for Transparency.

Competing interests

The authors have no competing interests to declare that are relevant to the content of this article.

Data availability

The data underlying this study consist of hand-collected information from publicly available annual reports, licensed firm data from LSEG Workspace, and publicly available country data sources. The hand-collected dataset and replication code are available upon request.

References

Bachas, P., A. Brockmeyer, R. Dom, and C. Semelet (2025). Effective tax rates, firm size and the global minimum tax. Policy Research Working Paper 11090, World Bank. Available at: http://documents.worldbank.org/curated/en/099225003242534123.

Barake, M., T. Neef, P.-E. Chouc, and G. Zucman (2021, October). Revenue Effects of the Global Minimum Tax: Country-by-Country Estimates. EU Tax Observatory. Available at: https://shs.hal.science/halshs-04103899v1.

Beer, S. and J. Loeprick (2015). Profit shifting: drivers of transfer (mis)pricing and the potential of countermeasures. *International Tax and Public Finance 22*(3), 426–451. DOI: https://doi.org/10.1007/s10797-014-9323-2.

Boukal, T., P. Janskỳ, and M. Palanskỳ (2026). Decomposing the revenue implications of the global minimum tax. *International Tax and Public Finance*, 1–50. DOI: https://doi.org/10.1007/s10797-026-09946-8.

Bray, S., D. Bunn, J. Gaul, and C. Spengel (2025). OECD pillar two compliance costs: A quantitative assessment for EU-headquartered groups. ZEW Discussion Papers. DOI: https://doi.org/10.2139/ssrn.5646330.

Brown, P., J. Preiato, and A. Tarca (2014). Measuring country differences in enforcement of accounting standards: An audit and enforcement proxy. *Journal of Business Finance & Accounting 41*(1-2), 1–52. DOI: https://doi.org/10.1111/jbfa.12066.

Brun, L., J. Pycroft, R. Speitmann, A. L. Stasio, and D. Stoehlker (2025). The impact of the global minimum tax on corporate tax revenues: evidence for EU Member States. Technical report, European Commission, Seville (Spain). Available at: https://publications.jrc.ec.europa.eu/repository/handle/JRC141119.

Che, L., O.-K. Hope, and J. C. Langli (2020). How big-4 firms improve audit quality. *Management Science 66*(10), 4552–4572. DOI: https://doi.org/10.1287/mnsc.2019.3370.

Chen, T., J. Harford, and C. Lin (2015). Do analysts matter for governance? Evidence from natural experiments. *Journal of financial Economics 115*(2), 383–410. DOI: https://doi.org/10.1016/j.jfineco.2014.10.002.

Council of the European Union (2022). Council Directive (EU) 2022/2523 of 14 December 2022 on ensuring a global minimum level of taxation for multinational enterprise groups and large-scale domestic groups in the Union. Official Journal of the European Union, L 328, 22 December 2022.

Dekker, P. and M. Kriek (2024). Pillar Two disclosures in annual reports of European listed companies. *Maandblad voor Accountancy en Bedrijfseconomie 98*(6), 353–364. DOI: https://doi.org/10.5117/mab.98.136265.

Dischinger, M. and N. Riedel (2011). Corporate taxes and the location of intangible assets within multinational firms. *Journal of Public Economics 95*(7-8), 691–707. DOI: https://doi.org/10.1016/j.jpubeco.2010.12.002.

EVS (2022). European Values Study Trend File 1981-2017. DOI: https://doi.org/10.4232/1.14021.

Fuest, C., F. Hugger, and F. Neumeier (2022). Corporate profit shifting and the role of tax havens: Evidence from German country-by-country reporting data. *Journal of Economic Behavior & Organization 194*, 454–477. DOI: https://doi.org/10.1016/j.jebo.2021.11.016.

Gómez-Cram, R. and M. Olbert (2023). Measuring the expected effects of the global tax reform. *The Review of Financial Studies 36*(12), 4965–5011. DOI: https://doi.org/10.1093/rfs/hhad038.

Gschossmann, E., J. H. Heckemeyer, J. M. Müller, C. Spengel, J. Spix, and S. Wickel (2025). The EU's new era of "fair company taxation": the impact of DEBRA and Pillar Two on the EU Member States' effective tax rates. *International Tax and Public Finance 33*(1), 1–45. DOI: https://doi.org/10.1007/s10797-025-09886-9.

Haerpfer, C., R. Inglehart, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin, and B. Puranen (2024). World Values Survey (1981-2022). Trend File. DOI: https://doi.org/10.14281/18241.27.

Hanappi, T. and A. C. Gonzalez Cabral (2022). The impact of the international tax reforms under Pillar One and Pillar Two on MNE's investment costs. *International Tax and Public Finance 29*(6), 1495–1526. DOI: https://doi.org/10.1007/s10797-022-09750-0.

Koch, R. and L. Oblinger (2025). Effects of the Global Minimum Tax on German Corporations. Working Paper. DOI: https://doi.org/10.2139/ssrn.5682542.

OECD (2021). Tax Challenges Arising from Digitalisation of the Economy–Global Anti-Base Erosion Model Rules (Pillar Two). DOI: https://doi.org/10.1787/782bac33-en.

OECD (2023). *Minimum Tax Implementation Handbook (Pillar Two)*. OECD, Paris. Available at: https://www.oecd.org/tax/beps/minimum-tax-implementation-handbook-pillar-two.pdf.

OECD (2025a). Country-by-country reporting (CbCR) - Aggregate totals by jurisdiction - Corporate tax statistics. Available at: https://data-explorer.oecd.org/vis?tm=

country%20by%20country&pg=0&snb=589&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_CBCR%40DF_CBCRI&df[ag]=OECD.CTP.TPS&df[vs]=1.0&dq=..A....._T.&lom=LASTNPERIODS&lo=1&to[TIME_PERIOD]=false.

OECD (2025b). Global Anti-Base Erosion Model Rules (Pillar Two) Frequently Asked Questions. Available at: https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/global-minimum-tax/faqs-on-model-globe-rules.pdf.

Tax Foundation (2025). International Tax Competitiveness Index 2025. Available at: https://taxfoundation.org/research/all/global/2025-international-tax-competitiveness-index/.

Table 1: Descriptive statistics

Group	GMT > 0 (in %)		GMT (in EUR thousands)						GMT / PBT (in %)					
	Mean	N	Mean	SD	Median	Min	Max	N	Mean	SD	Median	Min	Max	N
Panel A: Industry														
Academic & Educational Services	0.00	1	–	–	–	–	–	0	–	–	–	–	–	0
Basic Materials	23.72	215	4,884	14,973	2,000	1	105,323	51	1.17	3.00	0.39	0.00	17.68	39
Consumer Cyclicals	17.54	325	6,637	18,736	1,248	2	129,054	57	1.38	2.83	0.41	0.00	16.83	54
Consumer Non-Cyclicals	15.58	154	6,255	19,629	352	1	93,313	24	0.73	1.37	0.21	0.00	4.82	22
Energy	26.60	94	13,841	45,789	2,772	66	231,896	25	1.64	2.62	0.43	0.01	8.96	23
Financials	32.50	200	20,526	40,835	5,433	50	213,418	65	0.81	1.43	0.28	0.01	7.81	64
Healthcare	25.00	92	26,971	48,718	6,467	17	219,886	23	1.37	1.87	0.58	0.00	6.92	21
Industrials	22.96	331	2,091	4,534	730	11	30,000	76	1.33	7.88	0.20	0.00	66.19	70
Real Estate	4.35	23	8,000	0	8,000	8,000	8,000	1	1.79	0.00	1.79	1.79	1.79	1
Technology	26.70	176	12,740	45,015	1,811	9	291,326	47	1.68	2.38	0.60	0.00	10.30	40
Utilities	8.33	48	3,430	2,721	2,950	822	7,000	4	0.08	0.02	0.08	0.06	0.11	4
Panel B: Headquarter Country														
Australia	8.62	116	2,961	3,901	1,072	92	12,197	10	2.01	5.56	0.07	0.01	16.83	9
Austria	47.62	21	2,290	4,004	479	1	12,000	10	0.34	0.39	0.21	0.13	1.29	8
Belgium	44.44	27	9,025	19,417	1,819	100	68,000	12	1.01	1.60	0.54	0.07	5.85	12
Bulgaria	100.00	1	1,206	0	1,206	1,206	1,206	1	2.56	0.00	2.56	2.56	2.56	1
Canada	20.90	134	23,644	47,851	2,772	531	213,418	28	2.77	3.76	1.32	0.19	17.68	24
Croatia	25.00	4	274	0	274	274	274	1	0.12	0.00	0.12	0.12	0.12	1
Cyprus	33.33	3	1,698	0	1,698	1,698	1,698	1	2.82	0.00	2.82	2.82	2.82	1
Denmark	16.00	25	5,074	6,665	2,701	11	14,882	4	0.89	0.78	0.96	0.02	1.60	4
Finland	25.71	35	2,289	2,629	2,000	100	8,500	9	0.49	0.59	0.25	0.15	1.90	8
France	26.47	102	11,902	22,896	3,800	58	107,000	27	0.99	1.35	0.65	0.03	5.32	25
Germany	43.64	110	7,357	14,479	1,650	17	75,000	48	0.47	0.66	0.19	0.00	3.13	39
Greece	53.85	13	3,734	7,948	213	2	21,600	7	0.23	0.41	0.07	0.00	1.15	7
Hungary	42.86	7	25,888	24,525	28,018	367	49,279	3	2.60	3.77	0.84	0.03	6.92	3
Ireland	14.29	14	3,543	4,135	3,543	619	6,467	2	0.40	0.07	0.40	0.34	0.45	2
Italy	26.19	42	12,411	14,256	8,000	57	43,000	11	0.71	0.66	0.58	0.01	1.61	11
Japan	11.83	169	12,019	26,149	2,395	189	115,885	20	1.94	3.22	0.47	0.05	10.30	17
Luxembourg	40.00	20	3,354	3,171	3,378	20	8,000	8	0.87	1.09	0.43	0.02	3.15	8
Netherlands	31.71	41	4,465	5,443	1,000	462	18,835	13	0.56	0.86	0.24	0.02	2.57	12
Norway	16.67	30	6,609	6,709	2,864	400	14,782	5	3.46	4.37	0.31	0.27	8.69	5
Portugal	0.00	9	–	–	–	–	–	0	–	–	–	–	–	0
Romania	33.33	3	201	0	201	201	201	1	0.02	0.00	0.02	0.02	0.02	1
Slovenia	75.00	4	2,040	3,462	66	17	6,037	3	0.34	0.56	0.04	0.00	0.99	3
South Africa	23.73	59	8,088	22,632	968	15	85,730	14	0.38	0.58	0.20	0.00	2.12	12
South Korea	14.00	300	9,064	44,969	401	1	291,326	42	0.86	1.76	0.25	0.00	8.96	39
Spain	17.07	41	3,663	4,846	1,900	200	14,000	7	0.59	0.77	0.25	0.04	2.05	7
Sweden	24.14	87	8,186	27,900	1,200	9	129,054	21	1.26	2.35	0.26	0.01	8.97	20
Turkey	0.00	44	–	–	–	–	–	0	–	–	–	–	–	0
United Kingdom	32.83	198	15,578	46,882	2,362	100	231,896	65	1.88	8.61	0.38	0.01	66.19	59
Total	22.48	1,659	10,342	31,346	1,638	1	291,326	373	1.23	4.11	0.34	0.00	66.19	338

Notes: This table reports descriptive statistics for the dependent variables used in the multivariate analyses. Panel A presents the statistics by industry, Panel B by headquarters country, and the Total row for the full sample. *GMT>0* is the share of firms reporting positive GMT liabilities, expressed in percentages. *GMT* is the reported amount of GMT liabilities in thousands of euros. *GMT/PBT* is GMT liabilities divided by profit before tax, expressed in percentage. For *GMT* and *GMT/PBT*, statistics are reported only for firms with positive GMT liabilities. For *GMT/PBT*, firms with non-positive profit before tax are excluded. N denotes the number of observations used for the respective variable.

Table 2: Regression results

	With Country Fixed Effects			With Country Characteristics		
	(1)	(2)	(3)	(4)	(5)	(6)
	GMT>0	*LogGMT*	*Log(GMT/PBT)*	*GMT>0*	*LogGMT*	*Log(GMT/PBT)*
ForeignLowTaxBenefit	27.988***	40.929*	35.180*	23.494***	31.148	26.196
	(7.598)	(22.760)	(19.996)	(7.027)	(21.745)	(20.108)
TaxHavenShare	2.718***	-1.279	-0.946	3.786***	-1.085	-0.603
	(0.834)	(1.112)	(0.987)	(0.721)	(1.002)	(0.922)
NumSubsidiaryCountries	0.024***	0.014***	0.009**	0.023***	0.010**	0.006
	(0.006)	(0.004)	(0.004)	(0.006)	(0.004)	(0.004)
IntangibleAssets	2.724***	1.592	0.561	2.755***	0.989	0.351
	(0.972)	(0.930)	(0.782)	(1.028)	(0.884)	(0.838)
R&D	4.594	-1.394	2.517	5.975	1.640	4.678
	(4.011)	(5.982)	(5.983)	(3.839)	(6.106)	(6.927)
Big4	0.696	0.216	0.197	0.626	0.469	0.486
	(0.427)	(0.458)	(0.442)	(0.411)	(0.505)	(0.493)
AnalystCoverage	0.019	0.044**	0.036*	0.022*	0.032*	0.019
	(0.012)	(0.018)	(0.020)	(0.013)	(0.018)	(0.018)
DebtRatio	-0.229	-0.342	-0.220	0.066	-0.565	-0.377
	(0.356)	(0.771)	(0.949)	(0.333)	(0.859)	(1.014)
ROA	1.038	0.814	-12.693***	1.871	1.642	-12.150***
	(1.766)	(3.300)	(3.424)	(1.749)	(3.513)	(3.818)
Loss	-0.596**	-0.638		-0.486	-0.881*	
	(0.290)	(0.482)		(0.305)	(0.502)	
LossCarryforward	0.439*	-0.096	0.289	0.418	0.009	0.401
	(0.261)	(0.335)	(0.344)	(0.261)	(0.313)	(0.360)
LogTotalAssets	0.171***	0.361***	-0.524***	0.116*	0.414***	-0.467***
	(0.060)	(0.082)	(0.089)	(0.062)	(0.093)	(0.101)
TaxEnforcement				0.313***	0.299**	0.239*
				(0.083)	(0.141)	(0.136)
TCICrossBorderScore				0.040***	-0.005	-0.001
				(0.007)	(0.015)	(0.015)
HighTaxMoraleShare				0.320	-0.258	-0.293
				(0.700)	(1.126)	(1.143)
IFRSAudit				-0.091***	0.074*	0.076*
				(0.019)	(0.039)	(0.039)
FDItoGDP				-1.930	-4.871	-4.187
				(2.840)	(8.880)	(8.976)
LogGDPperCapitaPPP				0.364	-0.769	-0.554
				(0.479)	(1.194)	(1.159)
RuleOfLaw				-0.006	0.043	0.037
				(0.014)	(0.028)	(0.027)
Constant	-4.981***	4.693**	10.837***	-10.221*	7.399	11.204
	(1.255)	(1.844)	(2.034)	(5.784)	(12.071)	(12.259)
Country FE	Yes	Yes	Yes	No	No	No
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo / Adj. R^2	0.184	0.430	0.223	0.172	0.402	0.172
Clusters	25	22	22	21	20	20
Observations	1527	353	325	1431	332	306

Notes: This table reports the regression results for firms' reported GMT liabilities. Columns (1) to (3) present baseline specifications with headquarters-country and industry fixed effects. Columns (4) to (6) replace headquarters-country fixed effects with observable country characteristics. The dependent variable in Columns (1) and (4), *GMT>0*, is an indicator equal to one if a firm reports positive GMT liabilities and zero otherwise. *LogGMT* in Columns (2) and (5) is the natural logarithm of unscaled GMT liabilities. *Log(GMT/PBT)* in Columns (3) and (6) is the natural logarithm of GMT liabilities divided by profit before tax. Columns (1) and (4) are estimated using logistic regression. Columns (2), (3), (5), and (6) are estimated using linear regression. The continuous-outcome models are estimated on the subsample of firms reporting positive GMT liabilities; for *Log(GMT/PBT)*, loss firms are excluded. All explanatory variables are described in Section 3.2. Standard errors clustered at the headquarters-country level are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Online Appendix for "Expected Burdens of the Global Minimum Tax: Firm Evidence"

by Eike Baumgart, Kay Blaufus, and Katharina Paczkowski

A Additional Tables

Table A1: Sample coverage and reported versus expected Pillar Two tax effects by headquarters country

Country	Revenue			Annual Tax Effects	
	Analyzed (EUR bn)	CbCR (EUR bn)	Coverage (%)	Expected (EUR m)	Reported (EUR m)
Australia[a]	658.2	743.9	88.5	1,400	29.6
Austria	160.8	510.7	31.5	545.0	22.9
Belgium	176.3	318.4	55.4	1,339.0	108.3
Bulgaria	0.9	18.4	4.7	581.0	1.2
Canada[a]	865.7	1,658.9	52.2	17,400.0	662.0
Denmark	110.9	533.1	20.8	418.0	20.3
Finland	182.6	485.3	37.6	282.0	20.6
France	1,680.4	2,788.4	60.3	5,278.0	321.3
Germany	1,944.2	4,377.2	44.4	6,655.0	353.1
Greece	58.5	98.7	59.2	139.0	26.1
Hungary	36.6	74.7	49.0	412.0	77.7
Ireland	70.9	482.3	14.7	1,713.0	7.1
Italy	575.5	1,063.1	54.1	617.0	136.5
Japan[a]	2,332.5	5,929.3	39.3	4,700.0	240.4
Luxembourg	138.4	1,171.3	11.8	333.0	26.8
Netherlands	621.9	1,296.8	48.0	2,221.0	58.0
Norway[a]	112.3	367.0	30.6	200.0	33.0
Portugal	62.0	127.7	48.5	414.0	0.0
Romania	8.4	101.1	8.3	289.0	0.2
Slovenia	12.6	27.8	45.4	47.0	6.1
South Africa[a]	228.4	243.4	93.8	2,900	113.2
South Korea[a]	1,845.6	2,306.6	80.0	0.0	380.7
Spain	413.7	878.7	47.1	1,858.0	25.6
Sweden	380.1	532.5	71.4	838.0	171.9
Turkey	252.7	341.5	74.0	–	0.0
United Kingdom[a]	1,932.5	2,599.2	74.4	6,800.0	1,012.6
Total	14,862.7	29,076.0	51.1	23,979.0	3,855.5

Notes: This table compares the economic mass covered by the analyzed sample with the corresponding country totals from CbCR statistics. Revenue Coverage is computed as the ratio of analyzed-sample totals to CbCR totals. The Total row reports sums for the EUR-denominated variables; the corresponding coverage rates are computed from these sums. For EU countries, estimated additional corporate income tax revenue is taken from Brun et al. (2025). For non-EU countries marked with [a], we use, as an approximation, the estimated additional revenue reported by Barake et al. (2021) under a 15% GMT with substance-based carve-outs in the transitional Year 1 scenario (8% of tangible assets and 10% of payroll). No comparable estimate was available for Turkey.

Table A2: Robustness tests using the components of TaxEnforcement

	GMT>0			*LogGMT*			*Log(GMT/PBT)*		
EnforcementFTEPerCapita	1286.504***			1815.204**			1538.796*		
	(457.830)			(718.585)			(737.623)		
AuditsPerCapita		5.017*			10.917**			9.430**	
		(2.809)			(4.152)			(3.742)	
AdditionalAssessmentsToCollections			0.234**			0.008			-0.022
			(0.105)			(0.084)			(0.088)
Firm-level variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-level variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	No	No	No	No	No	No
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo / Adj. R^2	0.172	0.170	0.175	0.411	0.411	0.393	0.182	0.183	0.165
Clusters	21	22	22	20	20	20	20	20	20
Observations	1431	1469	1469	332	332	332	306	306	306

Notes: This table reports robustness tests for the country-level variable *TaxEnforcement*. In each specification, *TaxEnforcement* is replaced by one of its three components: *EnforcementFTEPerCapita*, *AuditsPerCapita*, or *AdditionalAssessmentsToCollections*. *GMT>0* is an indicator equal to one if a firm reports positive GMT liabilities and zero otherwise. *LogGMT* is the natural logarithm of unscaled GMT liabilities. *Log(GMT/PBT)* is the natural logarithm of GMT liabilities divided by profit before tax. The *GMT>0* specifications are estimated using logistic regression. The *LogGMT* and *Log(GMT/PBT)* specifications are estimated using linear regression. All models include the full set of firm variables, the remaining country-level variables from the baseline country-characteristics specifications, and industry fixed effects. *EnforcementFTEPerCapita* is the number of full-time equivalent staff in audit, investigation, and debt collection per capita. *AuditsPerCapita* is the number of total audits performed per capita. *AdditionalAssessmentsToCollections* is additional assessments raised through all audits as a percentage of tax collections. Standard errors clustered at the headquarters-country level are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Impressum:
Arbeitskreis Quantitative Steuerlehre, arqus, e.V.
Vorstand: Prof. Dr. Ralf Maiterth (Vorsitzender),
Prof. Dr. Kay Blaufus, Prof. Dr. Dr. Andreas Löffler
Sitz des Vereins: Berlin

Herausgeber: Kay Blaufus, Jochen Hundsdoerfer, Martin Jacob, Dirk Kiesewetter, Rolf J. König, Lutz Kruschwitz, Andreas Löffler, Ralf Maiterth, Heiko Müller, Jens Müller, Rainer Niemann, Deborah Schanz, Sebastian Schanz, Caren Sureth-Sloane, Corinna Treisch

Kontaktadresse:
Prof. Dr. Dr. h.c. Dr. h.c. Caren Sureth-Sloane,
Universität Paderborn, Fakultät für Wirtschaftswissenschaften,
Warburger Str. 100, 33098 Paderborn,
www.arqus.info, Email: info@arqus.info

ISSN 1861-8944