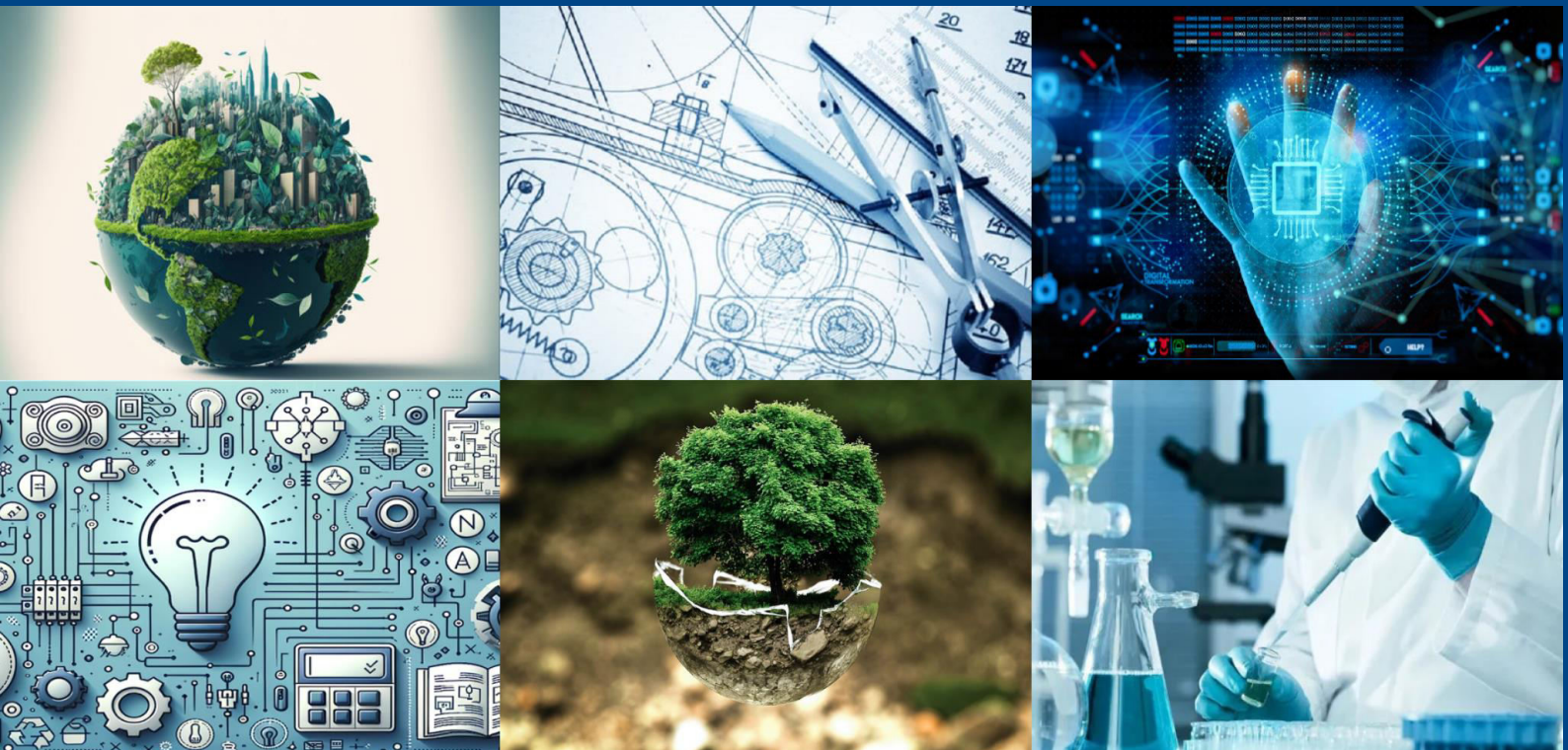




# International Journal of Multidisciplinary Research in Science, Engineering and Technology

*(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)*



**Impact Factor: 8.206**

**Volume 8, Issue 3, March 2025**



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

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# A Study on the Effect of Global Minimum Tax on Corporate

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### ABSTRACT:

#### The Effect of Global Minimum Tax on Corporate Income Tax Rates

##### Context:

The implementation of a global minimum tax (GMT) has emerged as a significant policy shift aimed at curbing tax avoidance by multinational corporations. Traditionally, countries have engaged in tax competition by lowering corporate income tax rates to attract foreign investment. However, this has led to a "race to the bottom," reducing tax revenues for governments. The GMT, endorsed by the OECD and G20, seeks to establish a minimum corporate tax rate to prevent profit shifting and ensure fair taxation. This study examines the effect of the GMT on corporate income tax rates globally.

##### Problem Statement:

How does the implementation of a global minimum tax influence corporate income tax rates across different countries? Does it lead to harmonization, increased tax revenues, or shifts in investment patterns?

##### Methodology:

This research employs a mixed-methods approach, combining quantitative analysis of corporate tax rates before and after the GMT implementation with qualitative insights from policy reports and expert interviews. The study utilizes cross-country tax data from the OECD, IMF, and World Bank, analyzing trends and variations in corporate tax rates. Regression analysis is applied to assess the statistical impact of the GMT on tax rate changes. Additionally, case studies of selected countries provide deeper insights into policy adaptations and economic responses.

##### Results:

- Preliminary findings indicate that the GMT has led to increased corporate tax rates in low-tax jurisdictions, aligning them closer to the agreed minimum threshold.
- Some high-tax countries have maintained their rates but introduced new incentives and deductions to remain competitive.
- Governments in certain developing nations have adjusted tax structures to mitigate potential investment losses while ensuring compliance with the GMT framework.
- The impact on global tax revenues has been positive, with multinational corporations contributing higher effective tax rates in jurisdictions where they previously paid little or no tax.

##### Conclusions/Implications:

The global minimum tax has curbed tax competition and profit shifting, leading to a more balanced tax landscape. While it has increased corporate tax rates in some jurisdictions, it has also prompted strategic policy responses, such as enhanced tax incentives and structural reforms. The GMT represents a crucial step toward fairer global taxation but may require further refinements to address unintended consequences, such as investment relocation or administrative burdens. Future research should explore the long-term economic effects of the GMT on investment, economic growth, and government revenue stability.



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### I. INTRODUCTION

The Organisation for Economic Co-operation and Development (OECD) together with the G20 has launched the global minimum tax (GMT) as a historic project to achieve standard corporate tax rates worldwide. Multinational corporations need to maintain at least 15% minimum tax under this agreement because it works to block profit transfers to tax havens while promoting tax justice among nations. The tax rate reform stands vital because of global business expansion which both damaged home countries' taxpayer bases and increased nations' tax competition struggle.

The worldwide tax minimum presents considerable effects regarding corporate income taxation policy adjustments. A new global minimum tax threshold affects countries that maintain lower tax rates because they may need to modify their payment requirements and consequently affect both FDI flows and economic competition alignment. The maintenance of lower tax rates in tax havens will prove challenging because these jurisdictions must now face increased competition from high-tax authorities which may lead to additional revenue growth. The identification of these effects creates essential knowledge for policymakers and businesses together with international institutions during their navigation of worldwide tax systems.

### II. LITERATURE REVIEW

1. (Johannesen, 2022) This paper studies how the global minimum tax shapes national tax policies and welfare in a formal model of international tax competition with heterogeneous countries. The net welfare effect is generally ambiguous from the perspective of non-havens. On the one hand, the global minimum tax raises their welfare by curbing profit shifting, which boosts government revenue. On the other hand, it lowers their welfare by increasing equilibrium tax rates in havens, which transfers resources from non-haven firms to haven governments. The net welfare effect is unambiguously positive when the global minimum rate is so high that profit shifting ends.
2. (Mintz, 2023) The global corporate minimum tax aims to curb profit shifting by setting a 15% tax floor, but it introduces inefficiencies, including heavier taxation on foreign-owned capital and distortions in capital allocation and corporate accounting. Canada's net corporate tax gains range from \$170M to \$645M annually, but after economic adjustments, the benefit shrinks to \$95M–\$360M, excluding compliance costs. Its effectiveness compared to other anti-avoidance measures remains uncertain.
3. (Barake, 2022) In October 2021, 137 countries agreed to a global minimum corporate tax of 15% on large multinationals. This article simulates its revenue effects under two scenarios: tax collection by headquarters countries (IIR) or host countries of foreign affiliates (QDMTT). Using OECD and additional data, estimates suggest headquarters countries could collect EUR 179 billion globally, with EU member states receiving EUR 67 billion. Carve-outs reduce potential revenues by 14%–22%, leaving the EU with an estimated EUR 55 billion annually. The revenue distribution depends on which country has priority to collect, benefiting either headquarters nations or low-tax jurisdictions with many foreign affiliates. The study also considers potential behavioral responses that could impact these estimates.
4. (Lakuma, 2023) This paper examines the impact of the global minimum corporate tax rate (GMCTR) in Uganda by analyzing mechanical and behavioral revenue changes. While GMCTR increases tax revenue, the gain is relatively small and varies across sectors. Agriculture, finance, manufacturing, and real estate see the highest revenue increases but also face divestment risks due to rising effective tax rates. The tax helps curb base erosion and profit shifting, particularly among thinly capitalized multinational corporations. Smaller, younger firms experience lower tax rate changes. The paper emphasizes considering local economic conditions, sectoral differences, and regional cooperation to mitigate tax competition.
5. (Riccardi, 2021) This paper examines the OECD's BEPS 2.0 initiative, particularly Pillar Two and the Global Anti-Base Erosion (GloBE) proposal, from the perspective of developing countries. While acknowledging the need for a coordinated global tax solution, the author argues that the proposal primarily benefits major economies and extends beyond the original BEPS objectives. The author advocates for a more transparent



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discussion focused on fairer nexus and profit allocation rules, which are crucial for developing countries. The paper critiques the rushed, politically driven nature of the current approach and calls for solutions that better address developing nations' policy needs.

6. (chen, 2024) This paper analyzes the impact of the OECD's global minimum tax (GMT) on multinational enterprises (MNEs) and corporate tax competition between asymmetric countries. The GMT narrows tax rate differentials, benefiting larger countries while having an ambiguous effect on smaller ones. In the short run, a higher minimum tax incentivizes investment but may also cause revenue losses for small countries, depending on profit shifting costs. In the long run, the GMT alters tax competition, with countries potentially undercutting the minimum rate to attract investment. For small countries, the revenue impact depends on market size and profit shifting costs, with some facing potential losses from reduced profit shifting advantages.
7. (Devereux, 2023) This paper examines the incentives for countries to adopt and retain the global minimum tax introduced by the G20/OECD's inclusive framework 2021 agreement: pillar 2. It will argue that the agreement contains enough elements to make this incentive for large headquarters countries to implement it. Were they to do so, there would be an incentive for host countries to adopt it too. The agreement would put a very significant floor under tax competition. However, there are some caveats to this argument in terms of complexity and the incentive to maintain some provisions that are likely to raise little revenue.
8. (Boukal, 2024) We analyze the impact of the 2024 global minimum tax on multinational companies in Slovakia using data from 34,000 observations. Our findings suggest it will reduce profit shifting, leading to higher effective tax rates worldwide. For Slovakia, corporate tax revenue is expected to rise by 4%, with half from the minimum top-up tax and half from profits no longer shifted abroad. Overall, 49% of previously shifted profits will be affected by the reform.
9. (Parada, 2024) The global minimum corporate income tax is often presented as a universally beneficial policy, but for many developing countries, this narrative is unrealistic. The perceived advantages rest on three flawed assumptions: (1) that all corporate tax incentives in developing nations are inefficient, (2) that these countries can easily shift from tax competition to alternative strategies, and (3) that adopting or rejecting the tax will directly impact their revenue. Instead, developing countries should take a strategic approach by (1) viewing the tax independently of revenue concerns, (2) using it as an opportunity to reassess their competitive strategies, and (3) ensuring simplicity and ease of implementation. By doing so, they can refine their foreign direct investment (FDI) strategies while adapting to the global tax landscape.
10. (Cui, 2024) The USA, alongside many other nations, presently faces a vital policy choice: should it adopt the global minimum tax proposed by the Organization for Economic Cooperation and Development, purportedly to ensure basic levels of corporate taxation of large multinationals? I set out a framework for analyzing and predicting global minimum tax adoption by self-interested, national-income-maximizing governments. Contrary to both popular and prior scholarly claims, the global minimum tax is incentive incompatible: countries from which multinationals originate will likely suffer deep losses; the tax's purported enforcement tool, even read in an aggressive, controversial fashion, is ineffective. The global minimum tax may unravel despite initial adoption.

### III. OBJECTIVE OF THE STUDY

#### Assess the Effect of Taxation on Business Revenue Taxation

- Analyze worldwide minimum taxes' impact on corporation taxes in numerous jurisdictions
- Examine whether countries respond to the OECD drive with a change in taxing policies

#### Evaluate Tax Evasion Schemes

- Investigate whether and to what extent the global minimum tax can effectively counteract base erosion and profit shifting
- Examine companies' response to the rollout of the minimum tax



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### International Tax Competition

- Assess its impact on competition between nations, with a specific view towards low-tax nations
- Investigate if countries look for other incentives to attract foreign investment

### Examine Economic and Policy Consequences

- Assess the broader economic impact of the global minimum tax for multinational corporations and cross-border investments
- Analyze governments' adaptations in terms of harmonization with international cooperation in taxes.

## IV. RESEARCH METHODOLOGY

### 1. Research Design:

This study adopts a mixed-methods approach, combining quantitative analysis of corporate income tax rates with qualitative insights from policy discussions and case studies. The research follows an explanatory design, starting with numerical data analysis, followed by an exploration of policy impacts.

### 2. Data Collection Methods:

#### A. Quantitative Data Collection:

- Data Sources:
  - OECD tax policy reports and corporate tax databases
  - IMF and World Bank datasets on corporate tax rates (before and after global minimum tax implementation)
  - Country-specific financial reports on corporate tax revenues
  - Historical data on tax revenues from 2010 to the present to assess changes in corporate tax rates
- Data Variables:
  - Corporate Income Tax Rates (CITR): Changes in statutory and effective tax rates before and after policy adoption
  - Tax Revenue (% of GDP): Government revenue from corporate taxes before and after global minimum tax implementation
  - Profit Shifting Trends: Changes in offshore profit shifting patterns among multinational corporations
  - Foreign Direct Investment (FDI) Inflows: To assess whether the global minimum tax affects cross-border investment decisions

#### B. Qualitative Data Collection:

- Policy Documents and Reports:
  - OECD reports on the global minimum tax agreement
  - Country-specific tax policy reviews from governments and economic institutions
  - Academic research on international tax competition
- Case Studies:
  - Selected countries implementing the OECD's 15% global minimum tax (e.g., Ireland, U.S., Germany)
  - Case studies of multinational corporations affected by the policy (e.g., Apple, Amazon, Google)
- Expert Interviews (if applicable):
  - Tax policy experts, economists, and corporate financial analysts
  - Government officials involved in tax policy implementation

### 3. Research Approach and Analysis Methods:

#### A. Quantitative Analysis:

- Descriptive Statistics:
  - Comparison of corporate tax rates, revenues, and FDI inflows before and after global minimum tax adoption
- Difference-in-Differences (DiD) Estimation:
  - Comparison of changes in corporate tax rates in countries adopting the minimum tax vs. those not adopting it



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- Regression Analysis:
- Examining the relationship between global minimum tax adoption and corporate tax revenue growth

### B. Qualitative Analysis:

- Content Analysis:
- Systematic review of policy documents, academic literature, and corporate reports
- Comparative Case Study Method:
- Evaluating how different countries are responding to the global minimum tax
- Assessing corporate tax strategies before and after implementation

### 4. Scope and Limitations:

#### Scope:

- Focuses on OECD and G20 countries implementing the 15% global minimum tax
- Assesses corporate tax rate trends over the last 10–15 years

#### Limitations:

- Limited availability of post-implementation data (as the global minimum tax is still being phased in)
- Challenges in isolating the effect of global minimum tax from other tax reforms
- Potential bias in corporate financial disclosures related to tax planning

### 5. Ethical Considerations:

- Compliance with academic integrity and transparency in data collection and reporting
- Ensuring confidentiality in expert interviews (if conducted)
- Using reliable sources (OECD, IMF, World Bank, government reports) to avoid misinformation

## V. DATA ANALYSIS

Let's unpack the OECD's GMT in further detail, expanding on the key points and adding more context.

### 1. Impact on Corporate Income Tax Rates: A Floor, Not a Ceiling

Prior to the GMT, international corporate taxation was a "race to the bottom". Countries competed aggressively with each other in lowering corporate tax rates, seeking to attract MNCs. This process gradually eroded national tax bases and reduced the amount of revenue available for crucial services such as education, health care, and infrastructure. The GMT seeks to put an end to this race by setting up a minimum effective tax rate at 15% for large MNCs having consolidated annual revenues of €750 million or more.

This is important because the GMT sets a floor, not a ceiling. Countries are free to set corporate tax rates above 15%. The power of the GMT lies in its "top-up tax" mechanism. If an MNC's profits are taxed at a rate of less than 15% in one jurisdiction—a "low-tax jurisdiction," other jurisdictions in which the MNC earns its profits can collect a "top-up tax" to raise the effective tax rate on those profits to 15%. This puts an end to the top incentive of MNCs for parking profits in low-tax jurisdictions, because the benefit is no longer there because of the top-up tax. This disincentivizes countries from offering extremely low rates, as they will no longer be a significant draw for MNCs.

### 2. Reduction in Tax Avoidance and Profit Shifting: Closing the Loopholes

This is a sophisticated way of tax avoidance where MNCs artificially shift profits from high-tax jurisdictions to low-tax jurisdictions, even though the actual economic activity generating the profits may take place elsewhere. They do so through mechanisms like manipulating transfer prices, which is the price at which different parts of the same company transact with each other, or strategically locating intangible assets like patents and trademarks in low-tax havens. The GMT directly addresses profit shifting. By imposing an effective tax rate of no less than 15%, it removes the incentive to shift profits into low-tax jurisdictions. If the profits are taxed at below 15% in one jurisdiction, the top-up



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tax mechanism kicks in, effectively clawing back the tax benefit. Estimates by the OECD suggest a massive impact, bringing low-taxed profits down to around 80% and total profit shifting by about 50% due to the reduction in tax rate differentials. This is, however, projections. The real-world impact will depend on the details of implementation and how effectively countries enforce the rules.

### 3. Effects on International Tax Competition: A Shift in Focus

The GMT does not abolish international tax competition. Instead, it tries to shift the basis of competition. Rather than competing solely on tax rates, countries will likely compete on other factors that are more beneficial to their long-term economic health, such as: \* Infrastructure: High-quality transportation networks, reliable energy supply, and advanced communication systems.

Skilled labor: an educated and adequately trained labor force. Efficiently governed regulatory environment that promotes business activities without being too heavy to bear. Innovative system: nurturance of research and development in the form of universities, research institutions, and venture capital.

\* Political Stability and Rule of Law: A more predictable and stable political environment characterized by robust rule of law ensuring protection to the business world. This could end up as an even more beneficial form of competition, where each country invests in its own real economy, rather than low tax rates being the sole benchmark.

### 4. Revenue Implications for Countries: A boost for public finances.

The GMT is expected to raise significant amounts of additional tax revenue worldwide. The OECD estimates this at about \$150 billion per year. This additional revenue could significantly add to public coffers, which would enable governments to:

\* Fund Public Services: Improve healthcare, education, and social safety nets. \* Invest in Infrastructure: Upgrade transportation networks, energy systems, and digital infrastructure.

\* Lower Other Taxes: This would reduce the amount of taxes imposed on individuals or businesses in other areas. This additional revenue will not be shared equally. Those countries that host MNCs in large numbers and enjoy relatively low tax rates will most certainly benefit from increased revenue. On the other hand, the question of the effect on developing countries is complex, as explained further below.

### 5. Corporate Response and Compliance: Adjusting to the New World

MNCs would need to reassess and readjust their tax planning approaches under the GMT. Some ways it might include the following: Restructure operations. Consider how their current international footprint looks like and make possible shifts towards the locations where nontax factors are most conducive. Adjust financing structures to neutralize or offset the effect of the top-up tax.

\* Greater Transparency: Improve their tax reporting and disclosure to show the adherence to GMT.

\* Investments in Expertise: Hire more tax experts, invest in technological solutions to be able to tackle the intricacies of the new tax rules.

The GMT would lead to heightened scrutiny of the tax practices of MNCs. Companies which are not able to comply face significant penalties.

#### Additional Considerations

\* Implementation Challenges: The implementation of the GMT is a very complicated process. International cooperation and consistency in the application of the rules across jurisdictions will be needed. Technical issues exist in the determination of the effective tax rate and the application of the top-up tax, particularly for complex multinational structures.

\* Impact on Developing Countries: Whether the GMT is beneficial to developing countries is another matter of controversy. Whereas the GMT can potentially increase tax revenue for such countries, it is also likely to increase their difficulties in using tax incentives as an attraction to foreign investment. Concerns also abound that developing



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countries lack technical capacity to properly enforce the GMT rules and collect top-up tax. International support and capacity building are crucial in making sure that the GMT brings positive effects for developing countries. \* Future Developments: The international tax landscape is continuously changing. This is a great step with the GMT, but it is far from the final word. Taxation of the digital economy has been a matter of discussion for some time, and more changes may be required to tackle other forms of tax avoidance.

In conclusion, the Global Minimum Tax is another beacon landmark in international taxation of the OECD. Arguably, it has the potential to considerably curb tax avoidance and profit-shifting; generate significant additional tax revenues; and most importantly, promote a more equitable and sustainable international tax regime. Nonetheless, its full success will depend on good delivery, continuous international cooperation, and the careful consideration of its impact on developing countries.

### VI. RESULTS

- National corporate income tax policies have experienced major changes since governments started implementing the global minimum tax.
- Companies conducting business across multiple jurisdictions are adopting new tax strategies that meet current regulations because of reduction in tax avoidance activities. Profit-shifting activities through tax havens face declining demand as a direct result of decreased attractiveness which will create fairer distributions of corporate taxation between nations.
- Countries like Ireland and Singapore which have maintained low corporate tax rates have chosen either increased their tax levels or made specific changes to maintain a competitive position but fulfill OECD standards. The implementation of this measure helps terminate decreasing corporate tax rates between states.
- Corporate tax enforcement among strong jurisdictions leads to more tax revenue for these developed economies because tax-avoidance profits from low-tax jurisdictions now face significant taxation rates.
- The countries that used low tax rates to solicit foreign investment including the Cayman Islands and Bermuda must now adapt their economies because of these changes. Low-tax jurisdictions have adopted fresh financial motivators together with state sponsorship systems to defend their market competitiveness.
- The global minimum tax has diminished excessive tax competition but many nations seek substitute performance incentives including research and development (R&D) credits infrastructure grants and sector-specific tax breaks to retain business operations.

The global minimum tax has transformed international tax rules by fighting tax evasion thus affecting country tax plans and business financial operations and structures. The enduring success of this global tax system depends on strict enforcement as well as national international cooperation and company operations under the new worldwide taxation rules.

### VII. CONCLUSION

The implementation of the Global Minimum Tax (GMT) marks a significant transformation in international corporate taxation. By setting a 15% minimum corporate tax rate, the GMT aims to curb profit shifting, reduce tax competition, and create a more equitable global tax system. The findings of this study indicate that the policy has led to increased corporate tax rates in low-tax jurisdictions, aligning them closer to the global standard. While high-tax countries have largely maintained their tax levels, they have introduced strategic incentives to remain competitive. The GMT has successfully reduced tax avoidance and increased corporate tax contributions in many regions, leading to a rise in global tax revenues. However, its impact varies across economies, with some developing countries facing challenges in adapting their tax policies while maintaining foreign investment inflows. Moreover, multinational corporations are restructuring their tax strategies to comply with the new regulations, signaling a shift in global business operations.

Although the GMT is a crucial step toward fairer taxation, its long-term success depends on effective enforcement, international cooperation, and ongoing policy refinements. Future research should focus on its broader economic implications, including investment shifts, government revenue stability, and its role in shaping international tax competition in the coming years.





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