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The Case for a Green Financial Transaction Tax

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Abstract: The aim of this note is to assess whether and how the Financial Transaction Tax (FTT) could be "greened" – that is, adapted or utilized to support environmental objectives and the financing of the transition to a more sustainable economy. While traditionally conceived as a regulatory tool, the FTT also holds unexploited potential as an instrument for climate finance and broader environmental alignment. This paper outlines five complementary arguments in favor of a green FTT: (1) its capacity to mobilize stable, international funding for global public goods; (2) its symbolic relevance in light of the financial sector's contribution to social and environmental disruption; (3) its ability to modestly lengthen investment horizons and counteract excessive short-termism; (4) its potential to enhance public trust in finance by matching rhetoric about sustainable finance with contributions; and (5) its prospective use as a differentiated tool to reward environmentally responsible issuers. The paper also includes a first quantitative assessment of potential revenues from a tiered green FTT, illustrating how such a mechanism could operationalize the principle of common but differentiated responsibilities and respective capabilities in climate finance. While recognizing practical limitations (in terms of governance, data reliability, and risk of complexity) the paper concludes that a well-calibrated green FTT could be a simple yet effective lever in aligning financial markets with the ecological transition.

Keywords: Financial Transaction Tax, Securities Transaction Tax, Tobin Tax, Innovative Financing; Climate Finance.

JEL-Codes: G1; H2; Q5.

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The work presented here constitutes an independent study undertaken by the authors. The views, interpretations, conclusions, and recommendations expressed in this report are solely those of the author. They do not necessarily reflect the official positions, policies, or opinions of the Global Solidarity Levies Task Force, its secretariat, its members, its observers or its affiliated institutions and partner organisations.

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Introduction

The financial transaction tax (FTT) is a recurring subject of heated debate. Yet, the idea itself is far from new. FTTs have existed for centuries were standard features of most stock markets throughout much of the 20th century.[1] The past few decades have seen a strong backlash against FTTs, driven largely by the rise of liberal economic ideology. Still today, around thirty countries across the world maintain some form of FTT. Criticized from multiple fronts, the FTT came to be viewed as an outdated instrument – at best, a utopian idea. Far from being obsolete, the FTT is arguably more relevant than ever. The evolution of financial markets, the growing volumes of speculative short-term trading, and the persistent under-taxation of financial activities, the needs for innovating financings have only strengthened the case for such a tax. Moreover, the FTT is not an unattainable ideal: existing national regimes demonstrate that it is perfectly feasible to implement and enforce such taxes effectively.

The academic literature on FTTs is already extensive, with numerous studies examining its regulatory rationale, design, and impact on financial markets, including several comprehensive reviews (Matheson, 2011; McCulloch and Pacillo, 2011; Burman et al., 2016; Capelle-Blancard, 2024). Much of this work has focused on how the FTT affects trading volumes, market liquidity, volatility, and market efficiency.[2] A smaller but growing body of research has also explored fiscal aspects of the FTT, including issues related to tax collection and potential revenue generation (Capelle-Blancard and Persaud, 2025). This paper, however, does not aim to revisit these well-explored debates. Instead, it takes a complementary perspective framed within the broader context of the ecological transition: we ask whether and how the FTT could be "greened"; that is, adapted to support environmental objectives and help finance the transition to a more sustainable economy.

The idea of a FTT has long been promoted as a means to finance global public goods and the ecological and social transition, but the specific concept of a green FTT has emerged only recently. It is now increasingly discussed in policy and advocacy circles, but it has not yet been the subject of systematic academic analysis. In most cases, it is only briefly mentioned as one

[1] In the United Kingdom, a stamp duty on stock exchange transactions was introduced in 1694 and remains the oldest tax still in force in the country. Most former territories under British influence inherited this tax, which remains in place in jurisdictions such as Hong Kong and South Africa, for example. In France, the FTT dates back to 1893, implemented in response to a series of financial scandals, including the corruption case surrounding the construction of the Panama Canal. In Belgium and Switzerland, FTTs have been in place since 1913 and 1918, respectively. Even the United States applied a FTT for much of the 20th century, before repealing it in 1981 in the context of financial market deregulation.

[2] Overall, the literature suggests that as long as markets remain sufficiently liquid and the tax rate stays relatively low – as is currently the case – the FTT has minimal effects on financial markets.

tool among many for greening the financial system (see, for instance, Gabor, 2020; Thomä et Schönauer, 2021; Carré et al., 2022), but without a detailed examination of its rational, its operational design, or practical implications. To date, a comprehensive academic analysis that formally conceptualizes the green FTT is still lacking.

We argue that the FTT can be adapted to support environmental objectives and the financing of the transition to a more sustainable economy, in particular the fight against climate change, and we develop five key reasons to support this claim.

1. **The FTT is an effective instrument for raising international funds to finance global public goods.** Revenues from an international (if not global) FTT would provide much-needed resources to support mitigation and adaptation projects.
2. **Globalization, deregulation, and the financialization of the economy have contributed both to the hypertrophy of the financial sector and to environmental disruption.** It would therefore be both logical and fair for financial markets to contribute to addressing some of the problems to which they have historically contributed.
3. **By design, the FTT penalizes the most short-term oriented investors in favor of those with longer-term horizons.** As a result, the FTT tends to lengthen investment horizons and thus encourages greater consideration of long-term challenges, including environmental sustainability.
4. **At a time when the banking and financial sector claims to embrace responsible and environmentally conscious approaches, a direct financial contribution would be timely.** Such a contribution could also help restore public trust in a sector that continues to suffer from widespread public skepticism.
5. **Finally, it is even possible to apply differentiated tax rates based on the environmental footprint of issuers.** However, this would require reliable environmental performance indicators and accurate identification of firms.

The following sections develop and elaborate on each of these five points. Moreover, beyond theoretical arguments, a practical question remains: how much revenue could a green FTT realistically generate? To address this, we provide a first quantitative assessment of the fiscal potential of a tiered design and we show how it could embed the principle of common but differentiated responsibilities and respective capabilities into global climate finance in a tangible and politically acceptable way.

1. The FTT as an Innovative Financing Mechanisms

The FTT has evolved from a primarily regulatory tool (e.g. Keynes, 1936; Stiglitz, 1989) into a potential instrument of innovative financing. Innovative financing mechanisms are broadly defined as financial tools or arrangements that mobilize new, predictable, and sustainable revenue streams for public goods and global challenges, particularly in areas where traditional funding sources have proven insufficient or volatile (Atkinson, 2004). Since the early 2000s, international bodies such as the Leading Group on Innovative Financing for Development and organizations like the World Bank and the United Nations Development Programme (UNDP) have identified the FTT as a promising tool for mobilizing resources beyond national budgets. In the context of innovative financing, attention was primarily focused on currency transactions (the so-called Currency Transaction Tax, or CTT), following Tobin's proposals (Tobin 1978). Nonetheless, there is no conceptual barrier to extending the tax base to equity transactions. Actually, existing FTTs today typically apply to equity trades (Stamp Duty-type taxes or Securities Transaction Tax, STTs), as in the UK, France, Italy, Spain, Switzerland, Hong Kong, South Korea, etc. The European Commission's 2011 proposal for a harmonized FTT among EU member states explicitly framed the tax as a means to contribute to the financing of public goods, including development aid and climate action (European Commission, 2011).

Thus, the nature of the FTT debate has evolved. With growing public deficits, fiscal considerations now outweigh regulatory concerns. The rationale for the FTT today is less about addressing speculative excesses or market instability, and increasingly about mobilizing new and stable sources of funding for sustainable development and the ecological transition. In this spirit, Esther Duflo recently highlighted the FTT as "*one of the possible avenues for financing*" international solidarity efforts (Duflo, 2024).

The FTT aligns with this approach by offering a way to capture revenue from financial market activities that are under-taxed relative to their scale and social impact (European Commission, 2011; Mooij and Nicodeme, 2014). Unlike conventional taxes on labor or consumption, which can have regressive effects or distort productive economic behavior, well-calibrated FTT target financial markets and short-term activities without significantly burdening long-term investment or financial stability (Capelle-Blancard, 2024).

Empirical studies indicate that even relatively low rates can generate significant revenue. For example, previous estimates for a modest FTT applied across major financial centers suggest potential revenues ranging from tens to hundreds of billions of dollars annually, depending on the breadth of the tax base and the inclusion of derivatives and currency transactions

(Schulmeister et al., 2008). A more recent estimation based on equity transactions only, using very conservative assumptions, reports that a worldwide FTT similar to the UK stamp duty could raise around $100 billion annually (Capelle-Blancard and Persaud, 2025) – an estimate further detailed in the last section of this paper. Notably, existing FTTs already generate approximately $17 billion per year, demonstrating the tax's viability as a revenue source.

While these figures underscore the FTT's potential as a fiscal instrument, they remain modest compared to the scale of global climate finance needs. According to the Global Landscape of Climate Finance 2024 (Climate Policy Initiative, 2024), meeting the Paris Agreement targets will require annual climate finance flows of approximately $7.2 trillion between 2024 and 2030. Current climate finance flows stood at roughly $1.46 trillion in 2022. Therefore, while an FTT alone cannot bridge the entire financing gap, it represents a meaningful and underutilized tool that could contribute significantly to the diversified portfolio of funding mechanisms required for the ecological transition.

There are still problems to be addressed. These are not technical challenges but rather political ones. Currently, FTT revenues flow directly into the general budgets of states and are not earmarked for specific expenditures, particularly development aid. This reflects one of the fundamental principles governing public finance: the principle of budget universality, which includes the rule of non-earmarking. This rule prohibits allocating a particular revenue stream to fund a specific expenditure. The non-earmarking rule is one of the core principles of public budgeting. Nevertheless, several arguments support earmarking certain revenues. The first is transparency: earmarking enhances public understanding and can increase taxpayer acceptance.

Earmarking has strong representative value. Tying a tax to a clear and legitimate purpose, such as climate justice, can significantly strengthen public support and political acceptability. This is particularly true for international solidarity mechanisms, which often struggle to gain traction without visible and dedicated funding channels. Furthermore, earmarking FTT revenues can help safeguard funding for development assistance.

For instance, in France, a portion of FTT revenues (initially 10%, later increased to 25% in 2016) is allocated to international aid. These funds complement revenues collected from the air ticket tax and contribute to the *Fonds de solidarité pour le développement* (Solidarity Development Fund), managed by the French Development Agency (AFD).

Another important challenge concerns who would administer the revenues generated by the tax. Once again, this is primarily an issue of international cooperation rather than a genuine obstacle.

Several potential candidates could reasonably be considered for this role, including the World Bank or the International Monetary Fund (IMF). These organizations have both the technical expertise and the global reach necessary to manage and disburse funds efficiently, especially for cross-border projects related to development aid or climate action.

2. The FTT as a Response to Financialization and its Impacts

The rise of financial markets is symptomatic of the broader process of financialization, defined as the increasing dominance of financial motives, financial markets, financial actors, and financial institutions across economies (Epstein, 2005). Financialization is key to understand the social and environmental crises. Although they may not be causally linked in a direct sense, they share common drivers: the globalization and the deregulation since the 1980s have reshaped economies and resource use patterns worldwide.

First, financialization has contributed to resource misallocation. The growing dominance of short-term profit motives and speculative trading tends to divert capital away from long-term, sustainable investments. Financial markets frequently underprice environmental risks, reinforcing investment patterns that favor high-return, carbon-intensive assets (Christophers, 2017; Scholtens, 2017).

Second, excessive liquidity and speculative capital flows have fostered economic instability. The proliferation of financial and monetary crises in emerging economies, often viewed as a byproduct of financial globalization, has repeatedly delayed poverty reduction efforts and disrupted sustainable development strategies (Prasad et al., 2007). For example, speculative capital flight has aggravated macroeconomic instability in many developing countries, increasing their vulnerability to both financial and environmental shocks.

Third, the financialization of commodity markets has amplified price volatility with direct environmental and social consequences. The global food price surge of 2007–2008, during which staple grain prices spiked dramatically, was in part driven by speculative investments in agricultural derivatives. This volatility intensified land-use pressures and contributed to poverty and food insecurity in vulnerable regions (Wahl, 2008; Clapp and Helleiner, 2012).

Fourth, financial globalization has contributed to widening income inequalities. Capital flow liberalization has been associated with increasing income disparities, both in advanced and developing economies (IMF, 2021). Growing inequality undermines social cohesion and

weakens political support for long-term environmental policies, further entrenching unsustainable economic practices.

Finally, Joseph Stiglitz also addresses a deeper issue: the disconnect between private gains and social value in modern financial markets. He argues that some of the innovations in financial markets of the past few decades, including high-frequency trading, certain derivatives, and cross-border flows, "*may not have been welfare enhancing*" (Stiglitz, 2014). These innovations often rely on regulatory arbitrage, market power, or rent extraction, rather than real economic contribution; they have produced large private returns while generating limited or even negative welfare effects. He warns against the assumption that increased trading activity is socially beneficial, noting that the most active financial periods have coincided with slower growth, higher volatility, and increased inequality. Instead of banning these practices outright, Stiglitz suggests that tax instruments can be effective tools to discourage socially unproductive forms of trading, particularly excessively fast and speculative ones.

In sum, financialization has indirectly exacerbated environmental degradation by promoting short-termism, fostering instability and volatility, encouraging unsustainable resource exploitation, and contributing to social inequalities that hinder effective environmental transition. Beyond these concrete impacts, the FTT also holds important symbolic value. As a redistributive mechanism, it embodies an effort to rebalance the distribution of wealth and power in a globalized economy increasingly shaped by financial actors. In this sense, it reasserts the political imperative to regulate finance. Not only to address market failures, but to reaffirm democratic control over capital flows. These systemic impacts underscore the need for fiscal instruments, such as a greened FTT, that can help realign market incentives and ensure that financial markets contribute to addressing the crises they have contributed to create.

3. Shifting Investment Horizons: The FTT's Role in Promoting Long-Term Investment

One of the foundational arguments for the FTT has always been its potential to discourage short-term, speculative trading, while minimally affecting long-term investment strategies.

Contrary to what its critics often claim, the FTT is not intended to penalize financial markets *as a whole*. The genuine issue is not that markets function poorly, but rather that they function too well, or more specifically, too fast. Far from the caricature sometimes presented by opponents, economists who support the FTT are not hostile to markets or investors. Quite the opposite. As John Maynard Keynes acknowledged, "*the speculator with resources can provide*

a useful, indeed almost an essential, service" (Keynes, 1923). James Tobin considered that markets had become "*excessively efficient*", allowing rapid trading to dominate over long-term economic considerations. Similarly, Lawrence Summers argued that the objective should not be to hinder markets, but to moderate "*financial markets [that] work too well*" (Summers & Summers, 1989). Joseph Stiglitz went even further: "*No institution in our capitalist society is as venerable as the stock market. A turnover tax might seem, at first glance, to be an attack on this foundation of our economy. I have tried to argue that such a tax is likely to increase the overall efficiency of the economy and may actually enhance the efficiency with which the stock market performs its most important roles.*" (Stiglitz, 1989).

Today, there is a broad consensus among economists – including some of the most influential voices in the field – that modern financial markets generate excessive trading volumes. Werner De Bondt and Richard Thaler described the high volume of trading as "*perhaps the most embarrassing fact for the standard financial paradigm*" (De Bondt & Thaler, 1995). Similarly, Andrei Shleifer argued that the question "*why do investors trade so much with each other?*" should rank at the very top of the research agenda in finance (Shleifer, 2000). In response to the 2008 global financial crisis, Paul Krugman advocated for the FTT asserting that "*there's considerable evidence suggesting that too much trading is going on... it suggests that to the extent that taxing financial transactions reduces the volume of wheeling and dealing, that would be a good thing*" (Krugman, 2011). Even John Cochrane, a vocal opponent of the FTT, acknowledged that "*the high volume of trading is the great unresolved problem of financial economics*" (Cochrane, 2016). Finally, as David Easley and Maureen O'Hara emphasized, the issue is not whether modern markets generate too much trading – "*in our view, it surely can*" – but how to better understand and manage these excesses (Easley & O'Hara, 2016).

The goal, therefore, is not to prohibit trading, but to curb excessive short-term transactions in order to promote longer investment horizons. This idea is simple, but not simplistic. Yet, this very simplicity may be the instrument's greatest strength. As Tobin aptly noted, "*critics seemed to miss what I regarded as the essential property of the transaction tax – the beauty part – that this simple, one-parameter tax would automatically penalize short-horizon round trips, while negligibly affecting the incentives for commodity trade and long-term capital investments. A 0.2 per cent tax on a round trip to another currency costs 48 per cent a year if transacted every business day, 10 per cent if every week, 2.4 per cent if every month. But it is a trivial charge on commodity trade or long-term foreign investments*." (Tobin, 1996).

Encouraging longer investment horizons is not only beneficial for market stability; it is also essential for financing the social and ecological transition. In particular, institutional investors (mainly pension funds, sovereign wealth funds, and insurance companies) represent a major source of long-term financing to support sustainable growth (OECD, 2021). Several academic studies (Chava, 2014; Nofsinger et al., 2019; Starks et al., 2019; Bolton and Kacperczyk, 2020; Krueger et al., 2020; Gibson et al., 2021) provide empirical evidence that institutional investors are increasingly integrating environmental risks into their decision-making processes, particularly when operating with long-term horizons. Moreover, the presence of institutional investors appears to have a causal influence on the social responsibility of the companies in which they invest (Dyck et al., 2019). By modestly penalizing short-term trading and promoting longer holding periods, the FTT can help reorient financial market behavior in a way that supports sustainable, forward-looking investment strategies, including infrastructure, clean energy projects, and climate adaptation initiatives.

Empirical research supports this theoretical expectation. Colliard and Hoffmann (2022) analyzed the effects of the French FTT, introduced in 2012, which applied to equity trades of large French companies. They found that the tax reduced trading volume, but they documented "*a shift in security holdings from short-term to long-term investors*." Their findings confirm that a well-calibrated FTT can help shift market dynamics towards longer investment horizons, mitigating the distortions caused by speculative, high-frequency trading.

While promoting longer investment horizons is crucial, a significant portion of modern trading is driven by strategies that prioritize speed and volume over long-term value, most notably, high-frequency trading (HFT). In the contemporary financial landscape, HFT represents the most extreme manifestation of short-termism. HFT strategies exploit millisecond price differences across markets, generating vast volumes of trades with virtually no holding periods. While proponents argue that HFT adds liquidity, a growing body of academic research highlights its destabilizing effects. Kirilenko et al. (2017) found that HFT exacerbated volatility during the 2010 "Flash Crash" and contributed to market fragility. Budish et al. (2015) further argued that the race for ever-faster execution in HFT creates a socially wasteful "arms race" for speed, producing private profits at the expense of market efficiency and stability. The core problem is that speed has overtaken information as the main source of market advantage, undermining the fundamental role of markets in aggregating expectations about the future value of assets. As Keynes noted as early as 1936: "*The social object of skilled investment should be to defeat the dark forces of time and ignorance which envelope our future*. *The actual, private*

object of the most skilled investment to-day is (…) to outwit the crowd and to pass the bad, or depreciating, half-crown to the other fellow." (Keynes, 1936). Seventy-five years later, Andy Haldane echoed this critique in remarkably similar terms: "*Being informed used to mean being smarter than the average bear about the path of future fundamentals (…). Today, it pays to be faster than the average bear, not smarter. To be uninformed is to be slow*." (Haldane, 2012). By imposing even a minimal cost on each transaction, the FTT disproportionately affects trading strategies that rely on ultra-rapid turnover and razor-thin margins employed by HFT firms, while having little impact on longer-term investors. The profits earned by HFT traders can be likened to a tax levied at the expense of long-term investors, obtained through overinvestment in technology (Biais et al., 2015), increased market opacity, and a growing erosion of public trust in the fairness of financial markets.

4. Rebuilding Public Trust: A Sector Contribution Aligned with Stated Values

Since Mark Carney's influential 2015 speech on the "tragedy of the horizon," the financial sector has increasingly portrayed itself as a key player in addressing environmental transition, in particular climate change. Major financial institutions have committed to aligning their portfolios with net-zero targets, notably through initiatives, such as the Principles for Responsible Investment (PRI) supported by the United Nations, or the Glasgow Financial Alliance for Net Zero (GFANZ). In principle, finance being at the heart of the economy has a critical role to play in directing capital towards companies and projects that will drive the transition. Yet, there are growing concerns that this is more posture than substance. Studies increasingly highlight the prevalence of greenwashing within the financial industry (Colaert and De Houwer, 2025). In particular, many so-called ESG or sustainable investment funds fail to meet their objectives and lack transparency about their environmental impact (Joliet and Titova, 2018; Raghunandan and Rajgopal, 2020; Kim and Yoon, 2020, Michaely et al., 2020).

This disconnect between discourse and action contributes to a persistent lack of public trust in the financial sector (Guiso et al. 2008). After decades of scandals and repeated crises, this widespread skepticism is understandable. Even so-called sustainable finance has struggled to convince individual investors of its credibility and effectiveness. As warned by Luigi Zingales, without public support, the financial sector undermines its own legitimacy: "*As finance academics, we should care deeply about the way the financial industry is perceived by society.*" (Zingales, 2015).

One concrete way for the financial sector to demonstrate genuine commitment would be to support the implementation of a FTT dedicated to funding the ecological transition. A modest contribution would align rhetoric with action. It is therefore striking – if not outright paradoxical – that the financial sector, while presenting itself as a champion of sustainability, often opposes even minimal taxation on financial transactions when aimed at climate finance. Accepting the FTT would be a credible gesture toward restoring public trust and fulfilling the promise of sustainable finance in a sector still struggling with credibility issues.

5. Towards a Green Differential: Linking Tax Rates to Environmental Performance

Designing and implementing a green FTT is not only about raising new public revenues, internalizing negative externalities, extending investment horizons, or rebuilding public trust in financial markets. It also introduces – perhaps most innovatively – a mechanism to differentiate among issuers based on their environmental responsibility. This would mark a significant evolution in the purpose and design of the FTT: not only as a tool to shape investor behavior, but also to influence corporate behavior through capital markets.

It should be acknowledged that the incentive effect of a green FTT on corporate behavior would likely be modest in practice. The underlying idea is that a higher transaction cost could be reflected in firms' cost of capital by making their shares less attractive to investors and thus raising the required return. While theoretical models suggest that secondary market frictions can indeed affect primary market financing conditions (Amihud et al., 2005), there is little robust empirical evidence to confirm that existing FTTs have materially impacted issuers' cost of capital. In other words, while the differentiation of tax rates sends a useful signal and aligns market incentives at the margin, its real impact on corporate financing conditions should not be overstated. The primary value of such differentiation may lie more in its emblematic and political value, and reinforcing public acceptance, rather than in directly altering corporate cost structures.

In practice, several approaches can be envisaged to implement an environmental differentiation within the FTT framework. The first consists in excluding so-called "brown" companies from existing exemptions. Today, most FTT regimes include numerous exemptions: for instance, transactions related to initial public offerings (IPOs) or primary market capital increases; trades involving small-cap firms (such as companies with a market capitalization below €1 billion in France); start-ups listed on recognized growth markets (as in the UK); transactions made under

employee share ownership schemes; and market-making activities. Under this proposal, only companies meeting specific social and environmental criteria would benefit from preferential treatment, while environmentally harmful companies would be subject to the full tax.

A second, more explicit approach would be to apply differentiated tax rates based on issuers' environmental performance. The FTT could be levied universally, but with a lower rate for green issuers and/or a higher rate for brown ones. This would send a clear price signal to financial markets, rewarding companies with strong sustainability credentials and penalizing those contributing most to environmental degradation, much like a carbon tax functions in the real economy. One might even envision setting the FTT rate at zero for green firms. However, this would come at the cost of sacrificing one of the core benefits of the FTT: its capacity to modestly extend investment horizons and discourage excessive short-term trading. Striking the right balance between fiscal incentive and regulatory function would therefore be key to designing an effective green FTT.

While appealing in principle, the idea of applying differentiated tax rates according to environmental performance raises some practical and conceptual challenges. The first and most immediate issue is data availability and reliability. Implementing a tiered tax regime requires a robust, consistent, and verifiable system for assessing firms' environmental impact—something that current ESG ratings and corporate disclosures still fail to deliver with sufficient precision and comparability (see for instance, Berg et al. 2022). The heterogeneity of methodologies used by different rating agencies often leads to contradictory assessments of the same firm, undermining the credibility of any tax differentiation based on such indicators. Moreover, the risk of greenwashing is well known, as firms may seek to benefit from favorable classifications without undertaking meaningful environmental changes.

Beyond these risks, there is also a danger that adding layers of complexity to the FTT (though well-intentioned) could undermine one of its core strengths: its simplicity. A major appeal of the FTT lies in its straightforward structure, which allows for low implementation and compliance costs. Introducing differentiated rates would entail additional monitoring and verification mechanisms, potentially increasing legal uncertainty and implementation costs. As James Tobin himself cautioned, this would risk sacrificing what he considered the "*as the essential property of the transaction tax –the beauty part*" (Tobin, 1996).

That said, in practice, most existing FTT regimes already apply differentiated rates in a straightforward and efficient manner. Exemptions are typically designed to protect small-cap firms; in particular, shares listed on the Alternative Investment Market in the United Kingdom

are exempt from stamp duty, and in France and Italy, only transactions involving companies above a certain market capitalisation threshold are taxed. In other words, smaller firms are effectively subject to a zero rate. These differentiated regimes are implemented with minimal administrative complexity. In France, for instance, the list of companies subject to the tax is published annually on December 1st and applies from January 1st of the following year. Maintaining two lists, each associated with a different rate, is operationally manageable and cost-effective. Applying a similar model based on environmental performance, rather than market size, would require only a modest adaptation of these existing practices.

6. Fiscal Potential of a Tiered Green FTT

How much revenue could a green FTT realistically generate, based on conservative assumptions and using the same type of mechanisms already in place today that have proven to be effective in practice?

6.1. The Baseline

Currently, existing FTTs generate approximately $17 billion annually worldwide, without any environmental differentiation. Rates vary across jurisdictions, typically ranging between 0.1% and 0.5%, though in some cases they can reach 1% or more. According to prior estimates, a broader application of existing FTTs on equity transactions based on the prevailing 0.5% rate used in the UK could yield up to $100 billion per year globally (Capelle-Blancard and Persaud, 2025).

This estimate relies on very conservative assumptions: (H1) a total global equity transaction volume of $170 trillion (based on data compiled from the World Bank and Refinitiv); (H2) a tax rate of 0.5%, which is the rate applied in the UK; (H3) a tax design similar to the UK stamp duty or the French and Italian FTTs; (H4) an estimated 20% decline in trading volume due to the introduction of the tax (assumed to apply uniformly, even in countries that already levy an FTT); and (H5) an exemption rate of 85%. Importantly, this scenario considers only the taxation of actual transfers of ownership, thereby excluding intra-day trading. This design feature enhances enforceability, as taxes are levied upon legal settlement, where ownership is formally transferred.

6.2 Green FTT Specific Assumptions

In addition to these baseline assumptions, several additional elements must be considered to model a green FTT. The overall revenue impact of introducing differentiated tax rates depends on: (H6) the design of the bonus-malus system; (H7) the classification of issuers – that is, the criteria and thresholds used to define green and brown firms; and (H8) how investors adjust their trading behavior in response to the new incentive structure. Let us now explore each of these factors in turn.

We first assume a simple two-rate structure for a green FTT. This offers simplicity, and ease of implementation, though more complex designs with additional rates could also be envisaged. In this framework, one can either maintain a base rate of 0.5% and apply a penalty (surcharge) for brown issuers, grant a preferential rate (a "greenium") for green issuers, or combine both approaches. The level of this bonus-malus system can be adjusted according to revenue objectives. In practice, there are many possible combinations; this is ultimately a matter of policy calibration.

The second key parameter in estimating potential revenue outcomes is the relative share of green and brown firms within the taxable universe. Once again, this is primarily a political choice. As discussed in the previous section, assessing the environmental footprint of issuers is challenging. But here, the issue is compounded by the need to define thresholds: should we favor the top quartile, third, or half of the most "virtuous" companies? Or, alternatively, penalize the most polluting quarter, third, or half? There is no clear economic rationale to guide this decision, which is why, in the simulation exercise that follows, we present a range of scenarios. It is also worth noting that the choice of thresholds is closely linked to the chosen tax rates. Indeed, similar outcomes can be achieved either by applying a larger penalty to a smaller group of brown firms (emphasizing the price effect) or a smaller penalty to a larger number of companies (emphasizing the volume effect); both options can yield comparable fiscal and environmental results.

By way of illustration, major ESG indices apply varying levels of selectivity: from 28% of the reference universe for the MSCI World SRI Index (377 companies out of 1,353 constituents – MSCI World SRI Index Factsheet, May 2025) to roughly 44% inclusion for the FTSE4Good All-World Index (1,850 companies out of a reference universe of 4,225 companies – FTSE Russell Factsheet, May 2025). Conversely, if one considers the European Union's green taxonomy, it appears that only about 10% to 20% of companies are currently aligned with its

criteria (Morningstar Sustainalytics, Oct. 2024); albeit, this percentage is expected to increase gradually as corporate practices improve and reporting becomes more robust.

6.3 The Model

To estimate potential revenues, we follow the methodology proposed by Capelle-Blancard and Persaud (2025). This approach, rather than relying on a purely theoretical model, infers most of the key parameters from actual FTT implementations, where reliable data on tax revenues and total transaction volumes are available. These empirical benchmarks offer a practical foundation for calibration. In particular, we use the FTT designs in the UK and France as primary references.

In the case of a *single-rate* structure, the tax revenue for country *i* and year *t* can be expressed as follows:

$$R_{i,t} = \tau_{i,t} \times T_{i,t} \left(1 - \varepsilon_{i,t}\right)\left(1 - z_{i,t}\right) \quad (1)$$

where $\tau_{i,t}$ is the tax rate, $T_{i,t}$ is the total value of transactions, $\varepsilon_{i,t}$ is the decrease of volumes in percent and $z_{i,t}$ represents the share of exemptions and leakages in total transactions volume.

For a *two-rate* structure, this simply involves computing a weighted sum of revenues from each category of issuers. The total tax revenue can be expressed as follows:

$$R_{i,t} = \left[\tau_{i,t}^{G} \times s_{i,t}^{G} + \tau_{i,t}^{B} \times s_{i,t}^{B}\right] \times T_{i,t}\left(1 - \varepsilon_{i,t}\right)\left(1 - z_{i,t}\right) \quad (2)$$

where $\tau_{i,t}^{G}$ and $\tau_{i,t}^{B}$ are the tax rates applied to green and brown issuers, respectively; $s_{i,t}^{G}$ and $s_{i,t}^{B}$ represent the respective shares of transactions involving green and brown issuers (with $s_{i,t}^{G} + s_{i,t}^{B} = 1$); $T_{i,t}, \varepsilon_{i,t},$ and $z_{i,t}$ are defined as in the single-rate model.

Depending on whether one chooses to implement a penalty for brown firms or a preferential rate for green firms ($\Delta\tau_{i,t} = \tau_{i,t}^{B} - \tau_{i,t}^{G}$), the expression can be simplified accordingly:

- Penalty approach:

$$R_{i,t} = \left[\tau_{i,t} + \Delta\tau_{i,t} \times s_{i,t}^{B}\right] \times T_{i,t}\left(1 - \varepsilon_{i,t}\right)\left(1 - z_{i,t}\right) \quad (3a)$$

- Greenium approach:

$$R_{i,t} = \left[\tau_{i,t} - \Delta\tau_{i,t} \times s_{i,t}^{G}\right] \times T_{i,t}\left(1 - \varepsilon_{i,t}\right)\left(1 - z_{i,t}\right) \quad (3b)$$

6.4 The Calibration

Following Capelle-Blancard and Persaud (2025), we adopt constant parameters, based on best available empirical estimates in the literature: $\varepsilon \equiv \varepsilon_{\forall i,\forall t} = 20\%$ and $z \equiv z_{\forall i,\forall t} = 85\%$. Finally, we assume a basic rate $\tau \equiv \tau_{\forall i,\forall t} = 0.5\%$, consistent with the current rate of the UK Stamp Duty Reserve Tax.

The brown penalty and the greenium vary from $\Delta\tau \equiv \Delta\tau_{i,t} = 0\%$ to 0.5%, in increments of 0.1%. In addition, we consider a wide range for the share of green firms, varying from $s^G \equiv s^G_{\forall i,\forall t} = 10\%$ to 80%, with particular attention to the 20% and 40% cases. The way we parameterize this share warrant two clarifications. First, these percentages refer to the share of total transaction volume. While most available data on green and brown firms typically relate to market capitalization, we make the simplifying assumption that trading activity is proportional to firm size. In other words, we assume that green and brown firms exhibit, on average, similar turnover ratios, which is again a conservative hypothesis. Second, the two-rate structure introduces a (modest) incentive for issuers to green their activities in order to benefit from a relatively lower tax rate. However, since such adjustments are likely to occur gradually, we treat the share of green and brown firms as exogenous and fixed in our calibration.

In this study, we focus primarily on estimating potential revenues at the global level, with a further breakdown by major geographic and economic zones. The underlying data on stock market transactions are drawn from the estimates provided by Capelle-Blancard and Persaud (2025), based on data from the World Bank and Refinitiv.

6.5 The Results

Table 1 provides estimated global revenues from a tiered green FTT under different parameter scenarios. It reports the revenues that could be generated worldwide, considering two alternative assumptions regarding the share of green firms in the taxable universe: 20% (Panel A) and 40% (Panel B). The penalty applied to brown firms and the preferential rate (greenium) granted to green firms vary simultaneously from 0% to 0.5%, relative to the baseline rate of 0.5%. As a result, the tax rate for a specific firm can range from a minimum of 0% to a maximum of 1%. At the global level, we assume a total volume of equity transactions of USD 170 trillion (corresponding to the estimated amount for 2022). All results are expressed on an annual basis and in billions of US dollars.

If neither a penalty nor a preferential rate is applied, the amount that could be raised through a global FTT, implemented under the same conditions as the UK stamp duty, would exceed USD 100 billion annually (first cell, top left of the table, Panel A or B). According to the OECD (2024), developed countries provided and mobilised a total of USD 115.9 billion in climate finance for developing countries in 2022, higher than the annual USD 100 billion goal for the first time. This achievement, while notable, occurred two years later than the original 2020 target year. Therefore, a globally implemented FTT, calibrated with a base rate of 0.5%, could potentially double the current volume of international climate finance flows. Such a mechanism would provide a stable and predictable source of funding, complementing existing efforts and helping to bridge the persistent financing gap in addressing climate change challenges.

Adjusting the tax rate to penalize brown firms and/or favor green firms naturally leads to higher or lower overall revenues. In the table, green-shaded cells indicate an increase in revenues, while brown-shaded cells indicate a decrease compared to the single-rate structure; variations greater than ±25% and ±50% are highlighted in a darker shade to reflect more significant changes. It should be emphasized that this is not intended as a precise forecast, but rather as an illustrative exercise to highlight the wide range of possible policy combinations.

For example, assuming that green firms account for 20% of total transaction volumes (Panel A), it is possible to maintain overall revenue close to $100 billion by applying a rate of 0.6% to brown firms and only 0.1% to green firms. If one adopts a broader definition of green firms, assuming they represent 40% of transactions (Panel B), the $100 billion target can be reached with a smaller rate differential between the two categories: for instance, by applying a 0.2% rate to the least polluting firms and a 0.7% rate to the other firms.

It is also possible to significantly increase revenues by applying a higher penalty rate, particularly when the share of brown firms is high (Panel A). For example, revenues easily reach USD 150 billion with a penalty of 0.3% (i.e. a 0.8% total rate for brown firms). Conversely, the fiscal cost of granting a preferential rate to green firms remains limited, provided that the scope of eligible green firms is strictly defined. Under such conditions, revenues remain well above USD 80 billion, even with full exemption of green firms.

Table 1. Estimated Revenues from a Green FTT

The estimates are based on a two-rate structure (baseline rate of 0.5%) and varying levels of greenium or brown penalty (from 0% to 0.5%, applied as a subtraction from or addition to the baseline). The share of green firms in the taxable universe is set at 20% in Panel A and 40% in Panel B. The model applies conservative assumptions: a transaction elasticity of –20% and an exemption/leakage rate of 85%. The global volume of equity transactions is estimated at USD 170 trillion, based on data from the World Bank and Refinitiv. Figures are reported in billions of US dollars. Cell colors indicate the relative change compared to a single-rate structure: dark green for increases above 50%; green for increases between 25% and 50%; light green for increases between 0% and 25%; light brown for decreases between 0% and 25%; brown for decreases greater than 25%.

Panel A. Share of Green Firms: 20%

Greenium \ Brown Penalty	0%	+0.1%	+0.2%	+0.3%	+0.4%	+0.5%
0.0%	102	118	135	151	167	184
–0.1%	98	114	131	147	163	180
–0.2%	94	110	126	143	159	175
–0.3%	90	106	122	139	155	171
–0.4%	86	102	118	135	151	167
–0.5%	82	98	114	131	147	163

Panel B. Share of Green Firms: 40%

Greenium \ Brown Penalty	0%	+0.1%	+0.2%	+0.3%	+0.4%	+0.5%
0.0%	102	114	126	139	151	163
–0.1%	94	106	118	131	143	155
–0.2%	86	98	110	122	135	147
–0.3%	78	90	102	114	126	139
–0.4%	69	82	94	106	118	131
–0.5%	61	73	86	98	110	122

More than the specific tax rates themselves, a key variable is the share of firms classified as green or brown. To better illustrate the impact of this factor on revenues, Table 2 reports estimated tax revenues as the brown penalty or green premium varies, across a broad range of market shares, from 10% to 80%. Mechanically, revenues increase with both the penalty rate and the share of brown firms. Revenues can nearly double compared to the baseline in the most stringent scenarios, or collapse if the definition of green firms is overly lax.

Table 2. Sensibility of the Revenue to the Share of Green Firms

The estimates are based on a two-rate structure (baseline rate of 0.5%) and varying levels of greenium or brown penalty (from 0% to 0.5%, applied as a subtraction from or addition to the baseline). The share of green firms in the taxable universe is set at 20% in Panel A and 40% in Panel B. The model applies conservative assumptions: a transaction elasticity of –20% and an exemption/leakage rate of 85%. The global volume of equity transactions is estimated at USD 170 trillion, based on data from the World Bank and Refinitiv. Figures are reported in billions of US dollars. Cell colors indicate the relative change compared to a single-rate structure: dark green for increases above 50%; green for increases between 25% and 50%; light green for increases between 0% and 25%; light brown for decreases between 0% and 25%; brown for decreases greater than 25%; dark brown for decreases greater than 50%.

% of Green	10%	20%	40%	50%	60%	80%
Brown Penalty						
+0.1%	120	118	114	112	110	106
+0.2%	139	135	126	122	118	110
+0.3%	157	151	139	133	126	114
+0.4%	175	167	151	143	135	118
+0.5%	194	184	163	153	143	122
Greenium						
–0.1%	100	98	94	92	90	86
–0.2%	98	94	86	82	78	69
–0.3%	96	90	78	71	65	53
–0.4%	94	86	69	61	53	37
–0.5%	92	82	61	51	41	20

It is also useful to disaggregate potential FTT revenues by geographic and economic zones. This breakdown is particularly relevant in light of the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), enshrined in the 1992 United Nations Framework Convention on Climate Change. A green FTT offers a unique opportunity to operationalize this principle. Because the tax is levied on equity transactions, the fiscal contribution of each country automatically reflects the size, depth, and liquidity of its financial markets, which correlate with national wealth and historical carbon footprints. In other words, this is a progressive mechanism that channels greater contributions from those best able to pay, without imposing artificial or arbitrary quotas.

Table 3 presents potential revenue estimates for a set of alternative groupings: first by broad geographic regions (North America, East Asia & Pacific, Europe & Central Asia, Rest of the World); then by income level (High income; Upper-middle income; Lower-middle & Low

income); and finally by key political groupings relevant to international climate finance negotiations (European Union, G7, BRICS, G20, OECD). This multi-dimensional decomposition is intended to inform reflections on international burden-sharing and to illustrate the considerable financial potential that exists in jurisdictions with large and liquid equity markets. We maintain the total global volume of equity transactions at USD 170 trillion. For each geographic and economic zone, this total is apportioned based on the zone's respective share of global stock market transactions.

For this breakdown, we should make an additional assumption: (H9) the share of green and brown firms is assumed to be the same across all geographic and economic zones (mainly due to the lack of harmonized granular data). To keep the presentation manageable, we report results based on two alternative assumptions for the share of green firms (20% and 40%) and three two-rate structures: (i) a penalty of +0.2% for brown firms, with the baseline rate (0.5%) maintained for green firms; (ii) a greenium of –0.2% for green firms, with the baseline rate maintained for brown firms; and (iii) a combined structure with a brown penalty of +0.1% and a greenium of –0.1%.

The breakdown highlights that the bulk of potential revenues would originate from high-income countries, particularly North America (52% of trading activity) and Europe & Central Asia (15%), as well as advanced markets in East Asia & Pacific (29%), collectively accounting for more than 90% of global equity trading. For instance, under a penalty-based scenario (+0.2% brown penalty), North America alone could generate between USD 66 and 71 billion annually, while Europe & Central Asia could contribute USD 20 to 21 billion. In contrast, lower middle and low-income countries would contribute only marginal amounts (USD 1 to 2 billion), reflecting their smaller financial markets, which aligns with the CBDR-RC principle by ensuring that the fiscal burden is borne primarily by countries with the greatest capacity.

In aggregate terms, advanced economies (OECD, G7) would bear the majority of the fiscal effort. For instance, G20 countries alone could mobilize between USD 81 and 128 billion, while OECD members would contribute between USD 64 and 101 billion depending on the scenario. Importantly, BRICS countries would contribute at an intermediate level (USD 18 to 29 billion), reflecting their transitional role in the global economy.

Table 3. Revenue from a Green FTT breakdown by zones

The estimates are based on a two-rate structure (baseline rate of 0.5%). The share of green firms in the taxable universe is set at either 20% or 40% , assumed to be uniform across all zones. The model applies conservative assumptions: a transaction elasticity of –20% and an exemption/leakage rate of 85%. Estimates are based on a total global volume of USD 170 trillion in equity transactions, apportioned across zones according to each zone's share of global trading activity (in parenthesis). Three rate structures are considered: (i) brown penalty +0.2%; (ii) greenium –0.2%; (iii) combined penalty/greenium ±0.1%. Figures are reported in billions of US dollars. Cell colors indicate the relative change compared to a single-rate structure: green for increases between 25% and 50%; light green for increases between 0% and 25%; light brown for decreases between 0% and 25%.

% of Green		**20%**	**40%**	**20%**	**40%**	**20%**	**40%**
Greenium **Brown Penalty**		**0.0%** **+0.2%**	**0.0%** **+0.2%**	**–0.2%** **0.0%**	**–0.2%** **0.0%**	**–0.1%** **+0.1%**	**–0.1%** **+0.1%**
Zone (%of global trading activity)							
North America	(52%)	71	66	49	45	60	56
East Asia & Pacific	(29%)	39	37	27	25	33	31
Europe & Central Asia	(15%)	21	20	15	13	18	16
Rest of the World	(3%)	4	3	2	2	3	3
High income	(78%)	105	98	73	67	89	82
Upper middle income	(21%)	28	27	20	18	24	22
Lower middle & Low income	(1%)	2	2	1	1	1	1
EU	(10%)	14	13	10	9	12	11
G7	(65%)	88	83	61	56	75	69
BRICS	(21%)	29	27	20	18	25	23
G20	(95%)	128	120	89	81	108	101
OECD	(75%)	101	94	70	64	85	79

It should be stressed that a significant share of the potential revenues (more than half in most scenarios) would come from North America, primarily the United States. However, this raises a political caveat: the U.S. is currently among the countries least likely to implement a green FTT, due both to longstanding domestic opposition to such a tax and to its more limited commitment to global climate finance. In the short to medium term, this suggests that realizing the full global revenue potential of a green FTT would likely depend on strong participation from other major financial centers – particularly in Europe – and on building international momentum that could gradually shift the political feasibility of such an instrument in the U.S.

Still, the implementation of a green FTT does not require universal adoption to be effective. While international cooperation would clearly represent the first-best scenario, individual

countries can adopt FTTs unilaterally – as they already do. As already noticed, several jurisdictions have long-standing FTT regimes (including the UK, France, Honk Kong, and others), which coexist with vibrant and liquid financial markets. The experience of these countries demonstrates that a well-designed FTT, applied at the national level, can be both operational and compatible with dynamic equity markets. The same applies to a green FTT: pioneering countries could lead by example, generating revenues and embedding climate incentives into their financial systems, while encouraging gradual broader adoption over time.

Conclusion: Making Finance Pay Its Due

The ecological transition requires not only massive public and private investment, but also a rethinking of the role of financial markets in serving long-term societal goals. The FTT, long discussed as a regulatory or purely fiscal tool, could be reimagined as a modest yet meaningful instrument of sustainable finance.

This is not about punishing investors or rejecting markets outright. Nor is it about setting finance and environmental protection against each other. Quite the contrary: it is about bringing them into better alignment. As Joseph Stiglitz has argued, the goal is to "*harness the benefits of markets while taming their excesses, ensuring that markets work for people, not the other way around*" (Stiglitz, 2019).

While not a silver bullet, a well-designed green FTT can simultaneously help mobilize resources, correct harmful incentives, and restore a sense of fairness in the way financial actors contribute to global challenges. In short, it is time for finance not just to speak the language of sustainability, but to pay its fair share.

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