We look at the pros and cons and successes and failures of taxing financial transactions.

Executive Summary

As the saying goes, “In this world nothing can be said to be certain, except death and taxes.” In the post-coronavirus world, increased taxes in some shape or form are almost a given as governments build recovery plans from the economic destruction the pandemic has brought. One such tax being proposed in various quarters is that of a financial transaction tax, or FTT.

FTTs exist in some countries and have been tried in others, and they essentially do what they say on the tin: Each trade of a security will trigger a tax liability. They have been an emotive topic, with investors and asset managers in every country where one has been proposed protesting that it will see traders vote with their feet and execute their business in other markets instead.

For this reason, many countries’ governments believe this tax must be implemented worldwide to raise “meaningful” revenue. One challenge is that policymakers are split on the point of the tax. Is it to raise revenue from the wealthier members of society or is it a “sin tax” on the finance sector for frequent trading?

The arguments made in favor of FTTs include ensuring that the financial sector makes a fair and substantial contribution to public finances and to discourage financial transactions that do not contribute to the efficiency of financial markets or of the real economy.

In this paper, we analyze proposed, existing, and repealed financial transaction tax approaches around the world to address the following:

1. How would an FTT affect ordinary investors?
2. Can an FTT achieve a targeted behavioral change or revenue goal?
**Key Takeaways**

- The rationale for an FTT needs to be clearly articulated and judged whether it is the best mechanism to achieve its goal alongside other tax and regulatory levers.
- While the long-term effect on returns is small for fees up to 0.1%, most FTTs create incentives that favor passive strategies and for those focused on broader segments of the market.
- Imposing the tax on sellers rather than buyers might encourage longer-term shareownership.
- Whether a revenue raiser, sin tax, or behavioral changer, these taxes have not raised their target amounts of revenue, making other taxation mechanisms more attractive and predictable.
- Including derivatives is critical to clamp down on tax avoidance, but some level of international collaboration is key to making such an approach work.
- Negative effects on liquidity have been minimal in markets with FTTs, however it could become a concern if the rate of the tax is raised too high, and there is no evidence as to where that threshold might be.
- A foundational requirement should be tax-neutrality for retail investment products, so that investors are not penalized for buying an underlying security via a collective investment product.

**Background**

FTTs are intuitively attractive as a means of raising significant revenues from relatively low taxes on a large universe. The challenge for policymakers in today’s global markets, with sophisticated technology and complex financial instruments, is designing an FTT without creating self-defeating market distortions.

As we will show, most attempts to date have focused predominantly on trades of large listed companies. With bonds, derivatives, commodities, and currencies largely out of scope, the amounts raised are actually very small and usually significantly less than 1% of a country’s total tax revenues.

On top of the securities that are excluded, there usually will be a range of venues, firms, and financial products that are given dispensation from the taxes. In part, this is to prevent double (or even triple) taxation, and it’s important because, regardless of who is on the hook for paying the taxes, the costs are ultimately borne by end investors. For example, think about the long-term mutual fundholder incurring a proportion of the taxes arising every time new investors subscribe to the fund and trigger further share purchases. These compounding costs will ultimately impact a holder’s long-term returns.

The effects would be multiplied in the case of a fund of funds, when, in theory, an investor could suffer a tax when buying the product; the product would be taxed when buying other funds; and those other funds would be taxed when they buy securities. The scenario raises even more concern if the investments were in retirement savings vehicles, which, in many countries, have historically operated under advantageous taxation rules to encourage retirement savings.
It quickly becomes evident why exclusions are necessary, but equally, how those exclusions can trigger behavioral changes. For example, under U.S. proposals, a mutual fund investor might switch to use Collective Investment Trusts, or CiTs; a trader of (taxed) shares might buy (untaxed) derivatives instead; high-frequency traders might just switch their focus to instruments in other markets.

This last scenario leads to one of the big concerns that various parties have raised, namely the (particularly of late, high-profile) issue of liquidity. As individuals and institutions adjust their investment process around the FTT, this can shift assets within the broader market with some segments seeing lower trading volume.

Countries that have implemented successful FTTs apply the tax to eligible securities, wherever and by whomever they are traded. For example, over 40% of UK stamp duty revenues come from foreign residents. Before evaluating the landscape of FTTs to understand what design can raise revenue without negatively impacting the overall market, we consider how this tax can impact ordinary investors.

**Cost to Fund Investors Is Generally Small, but the FTT Design Needs to Consider Unintended Incentives**

A financial transaction tax can impact retail investors in two distinct ways: 1) by increasing the cost of investing and 2) by restricting the products and services available to them. While many have debated how much an FTT will cost retail investors, less attention has been given to the preferential treatment the tax can create for certain investment vehicles and strategies that could limit the products brought to market and influence the advice given to investors.

For investors participating in the securities markets directly, many FTT systems focus on the largest shares, putting an extra cost on investing in these securities versus smaller companies or corporate bonds. In addition, they lead to distortions across sectors and potentially act to discourage rebalancing of portfolios. Since the tax is levied each time a share is bought, the securities that are traded more frequently will have higher effective tax rates than assets that are traded less often.

For fund investors, our analysis of an FTT proposed in the U.S. recently demonstrates that the direct cost is relatively small, but certain investment styles and strategies experience greater losses. This is illustrated in Exhibit 1, which analyzes the impact of a 0.1% FTT on all stocks for active and passive portfolios spanning three Morningstar categories. We analyzed the daily trading for an ETF in each of these buckets and applied the 10-basis point tax to all sales and purchases in 2019.

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Exhibit 1  Analysis of 0.1% FTT on 6 ETFs Covering Distinct Morningstar Categories

<table>
<thead>
<tr>
<th>Morningstar Category</th>
<th>Active/Passive</th>
<th>Reduction in Return Normalized to an Assumed 6% Annual Return</th>
<th>Difference After 20 Years of a $10,000 Initial Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Fund Foreign Large Blend Passive</td>
<td>Passive</td>
<td>0.06%</td>
<td>$368.63</td>
</tr>
<tr>
<td>US Fund Foreign Large Blend Active</td>
<td></td>
<td>0.07%</td>
<td>$448.54</td>
</tr>
<tr>
<td>US Fund Large Growth Passive</td>
<td>Passive</td>
<td>0.01%</td>
<td>$81.30</td>
</tr>
<tr>
<td>US Fund Large Growth Active</td>
<td></td>
<td>0.09%</td>
<td>$586.44</td>
</tr>
<tr>
<td>US Fund Small Blend Passive</td>
<td>Passive</td>
<td>0.04%</td>
<td>$221.64</td>
</tr>
<tr>
<td>US Fund Small Blend Active</td>
<td></td>
<td>0.07%</td>
<td>$415.30</td>
</tr>
</tbody>
</table>

Source: Morningstar data and analysis.

There is a clear disparity between the impact on passive and active funds and between strategies with broader and narrower investable markets, even with a small sample size. Across all three categories, the passive fund experienced a smaller reduction on return. This occurred regardless of their relative performance, with the passive foreign large-blend ETF returning less than its active counterpart while the passive large-growth ETF surpassed its active peer.

The variation in return reductions for passive funds across the different investment strategies also shows an increased impact on funds with smaller or more constrained investable markets and markets with more turnover. Considering just the passive investments allows us to draw conclusions based on the category of the fund and remove the element of what strategic decisions an active manager might make. The U.S. large-growth ETF, with the most stable holdings, experienced a minimal reduction in return, while the U.S. small-blend ETF was double its rate and the foreign-large blend more than 4 times as much.

ETFs, depending on their replication method, have no choice but to trade daily. Mutual funds and, to a greater extent, CITs have more flexibility on their trade execution as they can hold assets in cash longer. Active fund managers will be, in the normal course of business, trading both due to inflows and outflows, as well as changing the allocation of their fund from time to time. As a result, certain investment styles, strategies, and vehicles can be disproportionately affected.

Further, while designing FTTs to include a broad range of derivatives might increase the impact on high-frequency traders, it could also disadvantage ordinary mutual fund investors. A growing number of these funds utilize derivatives for defensive hedging purposes, particularly in the area of currency rates and bond durations. The funds have less control over the frequency at which they need to trade their portfolio to accommodate incoming and exiting investors, which could instead benefit institutional investors with more control over their trading patterns.
**Existing FTTs Focus on Large Stocks, Raising Minimal Revenue**

The current landscape of financial transaction tax schemes spans several continents and provides examples of different designs and implementations of the tax from which we can learn. Although there is variety in the rate and payer of the tax, most active FTTs exclusively tax stocks, with some limiting the scope to an even narrower segment of the market. As a result of the narrower scope, the revenue these taxes raise is limited and there are avenues for investors to avoid taxation by moving to other asset classes. A sample of FTTs currently implemented are summarized in Exhibit 2.

### Exhibit 2  Summary of Select Existing FTTs

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Securities in Scope</th>
<th>Rate</th>
<th>Payer</th>
<th>Estimated Annual Proceeds</th>
<th>% of Tax Revenues</th>
<th>% of GDP</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>FTT</td>
<td>Companies headquartered in France with market cap greater than EUR 1 bil</td>
<td>0.30%</td>
<td>Buyer</td>
<td>EUR 1 bil</td>
<td>0.20%</td>
<td>0.04%</td>
<td>Separate tax on HFT</td>
</tr>
<tr>
<td>Italy</td>
<td>FTT</td>
<td>Shares issued by an Italian entity with market cap greater than EUR 500 mil and the transfer of derivative financial instruments that have as underlying assets financial instruments governed by Italian law</td>
<td>0.02% on high-frequency traders 0.10% on exchange-traded equities 0.20% on over-the-counter equities</td>
<td>Transferee (intermediary receiving the buy order from the end client) For derivatives - buyer and seller</td>
<td>—* —* —*</td>
<td>Tax applies regardless of what market the trade is executed in or the residence of the buyers and sellers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>Stamp Duty</td>
<td>Companies incorporated in the UK</td>
<td>0.50%</td>
<td>Buyer</td>
<td>GBP 3.7 Bil</td>
<td>0.80%</td>
<td>0.17%</td>
<td>Tax applies to foreign and UK-based investors and regardless of what market the trade is executed in</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Stamp Duty</td>
<td>Companies incorporated in Hong Kong</td>
<td>0.10%</td>
<td>Buyer and seller</td>
<td>HKD 33.2 Bil 2</td>
<td>10.99%</td>
<td>1.15%</td>
<td>ETFs excluded</td>
</tr>
<tr>
<td>South Korea</td>
<td>Securities</td>
<td>Stocks traded on Korean exchanges</td>
<td>0.25%</td>
<td>Seller</td>
<td>W50²</td>
<td>0.95%</td>
<td>0.26%</td>
<td>Tax applies regardless of the residence of the buyers and sellers</td>
</tr>
<tr>
<td>Singapore</td>
<td>Stamp Duty</td>
<td>Stocks traded on Singapore exchanges</td>
<td>0.20%</td>
<td>Buyer</td>
<td>—* —* —*</td>
<td>—*</td>
<td>—*</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>Transaction Fee</td>
<td>Stocks traded on U.S. exchanges</td>
<td>0.00051% on exchange-traded equities 0.42% on security futures</td>
<td>Transferee For futures—buyer and seller</td>
<td>USD 1.7 Bil⁴</td>
<td>0.05%</td>
<td>0.01% Rate is adjusted at least annually in relation to trailing trade volume to ensure total revenue aligns with the SEC fiscal year budget⁵</td>
<td></td>
</tr>
</tbody>
</table>

Source: Morningstar analysis. * Revenue estimates of FTTs are not available for all markets.

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3 https://www.hankyung.com/finance/article/2020092398807
Some European Countries Have Gone Alone and Others Continue to Explore a Joint Cross-Border Solution

Several EU members have, or have had, independent financial transaction tax systems. After the financial crisis, and when it became clear the G20 discussions were not going to get a global approach off the ground, the EU published proposals to go it alone with an EU-bloc FTT. Failing to gain unanimous support, it then permitted a subset of countries to pursue a scaled-back scheme, estimating in 2013 that annual revenues would be in the range of EUR 30 to 35 billion, or 0.4 to 0.5% of the GDP of the participating Member States.

The original proposal was to harmonize the tax base and set minimum rates for all transactions on financial markets, once at least one EU financial institution was involved. To reduce chances of the system being gamed or markets becoming distorted, the concept was that the tax should apply to all markets, all instruments, and all types of firm.

Nearly 10 years later those discussions are still ongoing between 10 countries--Germany, Austria, Belgium, France, Greece, Italy, Portugal, Slovakia, Slovenia, and Spain--with one of the sticking points being how to ensure a minimum level of revenue for each participating country. Sweden is a notable omission, having had an unhappy experience with its own FTT in the 1980s, seeing security prices drop; trading move to other markets; and the double whammy of raising a fraction of anticipated revenues combined with a consequent lowering of capital gains tax receipts.

The current European proposals envisage a minimum standard rate of 0.2% applied to transactions of shares issued by listed companies located in a participating Member State with a market capitalization above EUR 1 billion. Overall, the German Finance Minister anticipates that the tax will generate around EUR 3.5 billion of tax revenue a year across the 10 countries.

At this point, the plans look very much like the existing scheme running in France since 2012. By applying the tax only to shares, an FTT can be avoided by switching to derivatives trading. For example, UK stamp duty does not apply to derivatives (and derivatives trading has grown significantly), although the Labour Party proposed a new FTT that would include them prior to losing the last general election in 2019.

Italy’s scheme, effective since 2013, is also similar but goes further in that it applies to derivatives that have as underlying assets financial instruments governed by Italian law. In 2020, the European Court of Justice ruled against a claim that it was incompatible with the provisions of free movement of capital and services, highlighting that the tax is only based upon Italian securities and applied equally to residents and nonresidents.
In some cases, new transaction taxes are floated with the idea of curbing high-frequency trading as an auxiliary goal. In the French system, the role of high-frequency traders in providing liquidity to the market is acknowledged, and they are exempt from the FTT. For the purposes of raising revenue or treating an FTT as a sin tax, it is clearly disadvantageous to exclude high-frequency traders. An argument in favor of FTTs is their ability to decrease price volatility by decreasing speculative trading. However, this remains largely unproven and could result in the loss of tighter price spreads that have been brought about by more trading.

**Fewer Examples of FTTs in Asia**

Perhaps because many Asian governments have lower structural deficits, the use of FTTs is lower in this region. As is evident from the Morningstar Global Investor Experience, illustrated in Exhibit 3, Asian countries take pride in providing very competitive tax frameworks for investors.

### Exhibit 3  Taxation of Mutual Fund Investors Around the World

<table>
<thead>
<tr>
<th>Generally Tax-Free</th>
<th>Lower</th>
<th>Moderate</th>
<th>Higher</th>
<th>NA</th>
</tr>
</thead>
</table>

Source: Morningstar, Inc.

The three countries we have explored are generally reducing, rather than expanding, their already modest FTTs. In South Korea, the securities transaction tax on stock trading is being phased out as the government introduces an investment income tax and expands taxation on capital gains. The current FTT rate will be lowered gradually from its current 0.25% and eliminated in 2023 for KOSDAQ stock-trading but remain for unlisted securities.

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6  Art. 235 ter ZD C. gén. imp.
In 2020, Hong Kong announced the waiving of stamp duty on stock transfers for primary market ETF activities in a concerted effort to attract more ETFs to the market. The stamp duty for trading ETFs in the secondary market in Hong Kong has been waived since 2015. However, as they narrow the focus of their FTT, Hong Kong is considering slightly raising the tax rate on the remaining applicable securities. In early 2021, Hong Kong introduced legislation that would increase the stamp duty rate from 0.1% to 0.13% for all Hong Kong stocks.

Hong Kong is an exception to other active FTTs, as the region generates a significant portion of its total tax revenue and over 1% of its GDP from the current transaction tax. There are many contributing factors to this outsize revenue, including China’s use of Hong Kong’s markets for interacting with other international markets and the longer time for which this tax has been active, as it was originally introduced in 1981.

In Singapore, there has been no recent discussion of reducing the scope or rate of their stamp duty. They apply one of the lighter fees, at only 0.2% of all stocks traded on the Singapore Exchange.

**An Analogous Tax in the U.S. That Could Form the Foundation of a Broader FTT**

FTTs have been of particular interest in the U.S. as a way to raise revenue without changing individual or corporate tax rates. The U.S. has what amounts to an FTT in place already, however the revenue from the tax is solely used as the funding mechanism for the primary investment regulator-- the Securities and Exchange Commission (SEC).

Imposed by the 1934 Exchange Act, this fee is charged to self-regulatory organizations (such as the national securities exchanges) based on the volume of securities sold on their markets. Since these fees are designed to cover the costs of regulating the securities markets and professionals, the rate fluctuates frequently but is lower than a traditional FTT. In the last two decades, the rate has ranged from 0.00051% to 0.00468%--in other words, it has never exceeded $50 for $1 million of trading.

Operating as a funding mechanism, the rate has been reviewed at least annually since 2001 and adjusted to align with the fiscal year budget of the SEC. As a result, the fee generally increases following a period of low trading volume and decreases after a period of high trading volume to ensure the agency is not under- or overfunded. Despite this relation to the trailing trade volume, this fee has not inhibited the market from rebounding following trading lulls. While some of this can be attributed to the minimal rate of the fee even at its peak, it is a reassuring example that a higher FTT need not drastically impact future trading volume and market liquidity.

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Broader FTTs Could Be Implemented Successfully, but Thorough Planning Is Needed

These examples demonstrate that it is possible to implement an FTT without severe detrimental effects for the local market and investors, but if the goal is to raise significant revenue, policymakers need to design the tax conscientiously as they expand the scope beyond stocks. In each region there are success stories of taxes focused on transactions of corporate stocks, however only in Hong Kong has the revenue raised eclipsed 1% of total tax revenues or 0.5% of GDP. Even FTTs with such a narrow scope sometimes fail and always require monitoring to ensure the rate is at an appropriate level.

When looking to generate more tax dollars from an FTT, the scope of the transactions taxed needs to be considered to avoid investors altering their behavior drastically to sidestep the tax. Additionally, any incentives created by including and excluding elements of the investment landscape in the scope should be weighed against the benefits of the additional revenue and the potential for these incentives to negatively impact investors. Finally, the magnitude of the tax must be balanced between a high enough level to generate the revenue needed and a low enough level to not create a significant barrier to market participants.

The FTT most recently proposed in the U.S. seems to achieve many of these aims but could be improved by ensuring investors are not double or triple taxed. The proposed scheme would tax all securities--shares, bonds, derivatives--purchased on a U.S. exchange or by a U.S. resident at a modest rate of 0.1%. This design incorporates elements of the UK stamp duty by taxing foreign investors in U.S. securities and starts at the lower end of the rate range, ideally resulting in less market disruption. Further, expanding the tax to asset types beyond shares should raise more revenue and limit the extent to which investors can evade the tax. The tax does not, however, make allowances for investors in pooled investments, such as mutual funds and CITs, to ensure these investors are not double taxed. This is particularly concerning when considering retirement savers, as an ever-increasing portion of their assets go into target-date strategies that are often implemented as fund of funds. Considering this tax would be imposed on investments traditionally shielded from taxation during either accumulation or decumulation, it is doubly important that these details be implemented carefully.

The many factors at play present a challenge for policymakers when considering implementing any new FTTs. However, with thoughtful decisions and ongoing oversight, we believe it is possible for a broader FTT to be implemented without causing long-term harm to investor outcomes.
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