The Committee is an independent 501(c)(3) research organization, financed by contributions from individuals, foundations, and corporations. The Committee’s membership includes thirty-five leaders drawn from the finance, business, law, accounting, and academic communities. The Committee Co-Chairs are R. Glenn Hubbard, Dean Emeritus of Columbia Business School, and John L. Thornton, Chairman of the Brookings Institution. The Committee’s President is Hal S. Scott, Emeritus Nomura Professor of International Financial Systems at Harvard Law School and the Committee’s Executive Director is John Gulliver.

Founded in 2006, the Committee undertook its first major report at the request of the incoming U.S. Secretary of the Treasury, Henry M. Paulson. Over ten years later, the Committee’s research continues to provide policymakers with an empirical and non-partisan foundation for public policy.
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Financial Transaction Taxes

Introduction

For over 300 years, financial transaction taxes ("FTTs") have been proposed, discussed, and implemented in various forms across global financial markets.\(^1\) And for over 300 years, FTTs have been a failure wherever imposed, frequently failing to raise the promised revenues, while simultaneously damaging the efficiency of the affected markets.\(^2\) Recent proposals for an FTT in the United States would likely have a similar result. Senator Bernie Sanders advocates for an FTT that would impose a 0.5% tax on stock trades, a 0.1% tax on bond trades and a 0.005% tax on derivative transactions.\(^3\) Senator Kamala Harris proposes an FTT that would tax stock trades at 0.2%, bond trades at 0.1% and derivative transactions at 0.002%.\(^4\) Finally, yet another FTT proposal, supported by Senator Elizabeth Warren among others,\(^5\) has been introduced in both chambers of Congress, and would impose a 0.1% tax each on stock, bond and derivative transactions.\(^6\) While the proposals exempt short-term debt\(^7\) and initial issuances of securities (such as IPOs), they do not exempt secondary trading of U.S. treasury securities.

FTT proponents claim unconvincingly that the tax will serve dual purposes – raising several hundred billion dollars in revenue that can be used to fund unrelated campaign proposals, such as free college tuition and student loan forgiveness (Senator Sanders)\(^8\) or healthcare reform

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\(^{*}\) Committee member Benjamin Friedman dissents from this statement.


7. Short-term securities have maturities of 60 days or less in the Sanders proposal and 100 days or less in the Warren proposal. The Harris proposal does not specify a short-term debt exemption.

8. See Carmen Reinicke, Bernie Sanders has a plan to erase student debt by taxing Wall Street. But industry watchers tell us it will hurt Main Street more, Markets Insider (July 27, 2019),
(Senator Harris), while simultaneously curbing purportedly excessive speculative trading activity. In fact, neither purpose would be achieved, and the claims themselves belie a fundamental misunderstanding of not only how securities markets function but also the direct link between robust securities market activity and jobs, infrastructure investment, innovation and productivity, retirement savings and overall macroeconomic growth. FTT proponents also ignore the empirical evidence from other countries that have imposed FTTs that universally demonstrates that (i) FTTs fall far short of revenue expectations and (ii) securities markets – and by extension the real economy as well as all investors and taxpayers – are significantly harmed by FTTs due to the wide array of beneficial trading activity that is indiscriminately targeted. In fact, many of the G20 countries that have experimented with FTTs in the past, including Germany, Italy, Japan, the Netherlands, Portugal and Sweden, ultimately repealed such taxes due to the damage that they caused. The U.S. should not ignore these international experiences and engage in its own reckless experiment with an FTT. Overall, the negative impact on securities markets, jobs, retirees, public works, and the economy as a whole would vastly outweigh any benefits from the revenue raised by the tax.

Given the historical failure of FTTs and the potentially negative consequences of the current proposals, the Committee on Capital Markets Regulation (the “Committee”) opposes the implementation of an FTT. Our main concerns are (i) the negative impact on U.S. pension plans, retirement accounts and individual savings, (ii) the damage to U.S. financial markets, (iii) the probable harm to jobs, wage growth and public works, and (iv) unrealistic revenue projections.

9 Harris, supra note 4.
I. Negative impact on U.S. pension plans, retirement accounts and individual savings

Nearly half of all U.S. households have exposure to stocks, either directly or indirectly through mutual funds and retirement accounts. All would find their portfolios negatively impacted by the FTT. For example, the Financial Economists Roundtable has noted:

“Proponents of financial transaction taxes expect that the tax burden would be borne by the financial services industry. In fact, although the industry would collect the tax, the burden would fall primarily on its customers [emphasis added] through higher fees and wider spreads….Repeated experience has shown that the ultimate bearers of a tax burden are always those least capable of avoiding it.”

An FTT would impose costs on ordinary investors and retirees in multiple ways. First, the FTT would directly impact investors through the payment of the tax itself on every purchase or sale of a security (i.e. the 10 or 50 basis point tax that must be paid to the government). Second, the FTT would indirectly impose costs on investors through wider bid-ask spreads and inefficient prices, given the degradation to securities market quality explored further in the following section. Ordinary investors would face these higher costs when they invest both on their own and through pension funds and retirement accounts, such as 401(k)s, reducing the retirement savings of U.S. workers.

The FTT would deplete retirement savings each time a pension fund or retirement account makes a new investment or rebalances its portfolio. Since workers contribute to their retirement savings, such as 401(k)s, on a relatively frequent basis (e.g. every bi-weekly pay period), retirement accounts are constantly investing new savings. These savings would be taxed every time a new contribution is made and subsequently invested. Further, portfolio rebalancing occurs frequently - as often as daily - for the most common type of retirement account, a target date

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fund, which continually adjusts its mix of stocks, bonds, and other assets. Due to this cascading tax on U.S. retirement accounts, even a seemingly small FTT (such as 10 basis points) may result in a high tax burden on retirement accounts and savers.

Several empirical analyses confirm these concerns. For example, the 50-basis point FTT imposed under the Sanders proposal would have an enormous impact on pension funds. The Modern Markets Initiative finds that the California Public Employees’ Retirement System (CalPERS), the largest defined-benefit pension fund in the United States, would pay more than half a billion dollars annually in direct costs from the FTT. Indirect costs due to the widening of bid-ask spreads would add an additional $162 million in costs to CalPERS. New York City public pension funds would cumulatively fare even worse, facing a total annual cost of $1.3 billion. In cases like CalPERS and the New York City public pension funds, the FTT costs are not borne by wealthy individuals or large banks, but rather by teachers, police officers, firefighters and other workers. As set forth in Table 1, there are 43 pension plan sponsors with over $50 billion in assets, all of which would similarly suffer higher costs and lower returns as a result of an FTT.

**Table 1**

**Pension Plan Sponsors with over $50 Billion in Plan Assets**

<table>
<thead>
<tr>
<th>Name</th>
<th>Total Plan Assets (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Retirement Thrift Investment Board</td>
<td>$578,755.00</td>
</tr>
<tr>
<td>California Public Employees' Retirement System</td>
<td>$376,859.00</td>
</tr>
<tr>
<td>California State Teachers' Retirement System</td>
<td>$230,209.00</td>
</tr>
<tr>
<td>New York State Common Retirement Fund</td>
<td>$213,241.00</td>
</tr>
<tr>
<td>New York City Retirement Systems</td>
<td>$200,805.00</td>
</tr>
<tr>
<td>State Board of Administration of Florida</td>
<td>$174,721.00</td>
</tr>
<tr>
<td>Teacher Retirement System of Texas</td>
<td>$153,126.00</td>
</tr>
</tbody>
</table>

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15 See, e.g., Target-Date Funds – Fine the Right Target for You, FIN. IND. REG. AUTH., https://www.finra.org/investors/target-date-funds-find-right-target-you (last visited July 1, 2019).
18 Id.
19 Id.; NYC public pension funds include the New York City Employees’ Retirement System, the Teachers’ Retirement System of the City of New York, the New York City Police Pension Fund, the New York City Fire Department Pension Fund, and the New York City Board of Education Retirement System.
<table>
<thead>
<tr>
<th>Name</th>
<th>Total Plan Assets (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T Inc.</td>
<td>$124,129.00</td>
</tr>
<tr>
<td>The Boeing Co.</td>
<td>$123,700.00</td>
</tr>
<tr>
<td>New York State Teachers' Retirement System</td>
<td>$120,088.00</td>
</tr>
<tr>
<td>State of Wisconsin Investment Board</td>
<td>$114,626.00</td>
</tr>
<tr>
<td>Washington State Investment Board</td>
<td>$112,474.00</td>
</tr>
<tr>
<td>North Carolina Retirement Systems</td>
<td>$111,370.00</td>
</tr>
<tr>
<td>International Business Machines Corp.</td>
<td>$103,254.00</td>
</tr>
<tr>
<td>Ohio Public Employees Retirement System</td>
<td>$100,707.00</td>
</tr>
<tr>
<td>University of California Retirement System</td>
<td>$93,296.00</td>
</tr>
<tr>
<td>General Motors Co.</td>
<td>$88,527.00</td>
</tr>
<tr>
<td>New Jersey Division of Investment</td>
<td>$83,876.00</td>
</tr>
<tr>
<td>Virginia Retirement System</td>
<td>$83,876.00</td>
</tr>
<tr>
<td>State of Michigan Retirement Systems</td>
<td>$81,899.00</td>
</tr>
<tr>
<td>Oregon Public Employees Retirement Fund</td>
<td>$81,269.00</td>
</tr>
<tr>
<td>General Electric Co.</td>
<td>$80,954.00</td>
</tr>
<tr>
<td>State Teachers Retirement System of Ohio</td>
<td>$79,153.00</td>
</tr>
<tr>
<td>Minnesota State Board of Investment</td>
<td>$77,631.00</td>
</tr>
<tr>
<td>Teachers Retirement System of Georgia</td>
<td>$77,523.00</td>
</tr>
<tr>
<td>Lockheed Martin Corp.</td>
<td>$76,555.00</td>
</tr>
<tr>
<td>Massachusetts Pension Reserves Investment Management Board</td>
<td>$73,848.00</td>
</tr>
<tr>
<td>United Parcel Service Inc.</td>
<td>$66,244.00</td>
</tr>
<tr>
<td>United Nations Joint Staff Pension Fund</td>
<td>$65,605.00</td>
</tr>
<tr>
<td>Bank of America Corp.</td>
<td>$59,960.00</td>
</tr>
<tr>
<td>Tennessee Consolidated Retirement System</td>
<td>$58,355.00</td>
</tr>
<tr>
<td>Ford Motor Co.</td>
<td>$57,710.00</td>
</tr>
<tr>
<td>Los Angeles County Employees Retirement Association</td>
<td>$57,133.00</td>
</tr>
<tr>
<td>Pennsylvania Public School Employees' Retirement System</td>
<td>$55,147.00</td>
</tr>
<tr>
<td>Public Employees' Retirement Association of Colorado</td>
<td>$54,035.00</td>
</tr>
<tr>
<td>DowDuPont Inc.</td>
<td>$53,903.00</td>
</tr>
<tr>
<td>Kaiser Foundation Health Plan Inc.</td>
<td>$53,761.00</td>
</tr>
<tr>
<td>Verizon Communications Inc.</td>
<td>$53,353.00</td>
</tr>
<tr>
<td>Northrop Grumman Corp.</td>
<td>$52,966.00</td>
</tr>
<tr>
<td>Wells Fargo &amp; Co.</td>
<td>$52,901.00</td>
</tr>
<tr>
<td>Maryland State Retirement &amp; Pension System</td>
<td>$52,355.00</td>
</tr>
<tr>
<td>Teachers' Retirement System of the State of Illinois</td>
<td>$51,844.00</td>
</tr>
<tr>
<td>United Technologies Corp.</td>
<td>$50,220.00</td>
</tr>
</tbody>
</table>

Even a relatively smaller 10-basis point FTT would negatively impact individual investors and retirees. According to the American Retirement Association, a 10-basis point FTT “could
reduce an American’s retirement savings by as much as 3% over their working life.”

SIFMA estimates that “[a] typical mutual fund investor will have to save an additional $600 per year…or work an additional two years to achieve his/her retirement goals.”

Finally, BlackRock estimates that a 10 basis-point FTT would cause investors to lose $2,300 in expected returns on a $10,000 investment in its global equity fund over ten years. A 50 basis-point FTT, as proposed by Senator Sanders, would certainly impose even higher costs. In all, an FTT would worsen an already tenuous retirement landscape in the United States.

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II. Damage to U.S. financial markets

FTT proponents contend, without substantiation, that there is excessive speculative trading activity that needs to be curtailed. In reality, electronic trading has made U.S. equity markets the most efficient and liquid in the world. While a few bad actors may leverage technology to engage in manipulative trading activity, such as front-running or spoofing, these practices are already prohibited by law and the SEC, CFTC and Department of Justice actively prosecute wrongdoers. An FTT is not needed to address improper trading activities, and is ill-suited for targeting illegal trading activity. The introduction of an FTT would simply decrease all trading activity, including the beneficial high frequency trading that has improved market quality in the United States. The consequence would be a significant reduction in both liquidity and price efficiency.

The importance of liquidity in securities markets cannot be overstated. Liquidity is a key feature of efficient markets, providing investors several benefits, including the ability to trade with relative ease at the best prevailing prices with minimal price impact. Liquid markets also allow capital to be both efficiently deployed and efficiently reallocated to its most productive uses, which contributes to the overall health and growth of the entire economy. At the heart of liquidity are robust trading volumes – thus, as an FTT would dampen trading volumes, it would significantly compromise market liquidity, damaging both securities markets and the macroeconomy as a whole.

Studying the effects of FTTs and other market frictions on liquidity, Matheson (2012) illustrates that higher transactions costs, including those imposed by FTTs, in fact lead to a reduction in liquidity through lower trading volumes. Burman et al. (2016) notes that “[e]ven a miniscule FTT can represent a significant proportional increase in transaction costs on liquid..."
assets, which is why their trading volume is most sensitive to the imposition of the tax.”

In a study of the SEC’s nearly de minimis fees on stock transactions, Auten and Matheson (2010) found that increases in the fee led to a reduction in trading volume for the most liquid U.S. stocks.

Transaction costs for market participants would also be increased through substantially higher bid-ask spreads, as market makers would seek to offset the increased trading costs from the FTT. Burman et al. (2016) summarize the empirical evidence supporting this concern, highlighting that a New York state FTT led to higher bid-ask spreads in affected securities and a similar effect when Canada imposed an FTT.

Liquidity problems have arisen in several countries that have implemented FTTs. Sweden’s FTT in the mid-1980s caused a severe drop in trading volumes across its securities markets. Umlauf (1993) estimates that when Sweden increased its FTT from 1% to 2%, sixty percent of the trading volume of the top 11 most actively traded stocks and thirty percent of stock trading volume overall moved to the London markets. Liquidity in other securities markets fared even worse as fixed income volumes fell by 85% and futures volumes fell by 98% in the first week of post-FTT trading. France imposed an FTT in 2012 and experienced an overall reduction in trading volume of 30%. Much of the lost trading volume migrated to other European securities markets.

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29 Burman et al., supra note 11.
30 The SEC currently imposes a nominal transaction fee of 0.00125% or 0.125 basis points on the dollar value of equity transactions.
37 Burman et al., supra note 11, at 177–78.
Multiple other countries have also experienced drops in trading volume due to the introduction of an FTT, including China,38 Taiwan,39 Japan40 and the United Kingdom.41

Financial markets in the United States would likely face even larger reductions in trading volumes since, unlike the FTTs in most other countries, the U.S. proposals fail to include an exemption for intermediaries. For example, France’s FTT exempts transactions conducted by an intermediary, including market makers, defined as firms engaged in the “simultaneous quoting of firm, competitive bid and ask prices, of comparable size, with the result of ensuring market liquidity on a regular and continuous basis.”42 In addition, intermediaries who “execut[e] the orders on behalf of clients or in response to client buy and sell interest” are also exempted from the tax.43 Since market makers play an important role in securities markets, the U.S. proposals’ failure to provide a similar exemption would prove even more damaging to market liquidity.

FTTs also impair the accuracy of market prices by curtailing trading volumes. Fundamental information about a public company becomes reflected in its stock price when active traders, such as traditional fund managers or other stock pickers, buy or sell the stock based on their research and analysis of the company. Introducing additional trading costs through an FTT would reduce the efficiency of this important market mechanism. Empirical studies confirm this concern. Matheson (2012) finds that the reduction in liquidity brought about by the FTT does indeed damage the accuracy of market prices, as fundamental information is incorporated more slowly into market prices when liquidity is reduced.44 As a result, the prices of public companies at any given point in time become less accurate.45 Habermeier and Kirilenko (2001) further show that even small transaction costs, such as the proposed FTT, can cause prices to deviate from their

38 Badi H. Baltagi et al., Transaction tax and stock market behavior: evidence from an emerging market, 31(2) EMPIRICAL ECON. 393 (June 2006).
43 Id.
44 Matheson, supra note 16.
45 Id.
fundamental value.\textsuperscript{46} Empirical studies of the effects of FTTs on price discovery in Chinese\textsuperscript{47} and Japanese\textsuperscript{48} securities markets have further confirmed these negative consequences.

The increasingly important passive fund sector would also be negatively impacted by the deterioration of liquidity. Passive investment funds, including index mutual funds and exchange traded funds (ETFs), are constructed and managed to track the return of a specified index (e.g. S&P 500 index). The net asset value (NAV) of these funds depends crucially on accurate pricing of the underlying stocks, which would be compromised by an FTT. In addition, ETFs rely on constant trading by arbitrageurs, who ensure that the current market price of the ETF is reflective of the fund’s NAV. Investors can be confident in the accuracy of their ETF price only if the arbitrageurs continue to rapidly trade away price discrepancies. However, an FTT would discourage this important arbitrage activity, thus compromising the accuracy of ETF prices and harming investors. Overall, because of the impact on price efficiency and on passive fund pricing, investors would be forced to trade at worse prices that do not reflect true fundamental value at any given point in time.

Finally, while some proponents of reforms aimed at encouraging long-term investment by public companies suggest that FTTs can help achieve that policy goal,\textsuperscript{49} there is no support for this claim. It is unlikely that an FTT’s 10 to 50 basis point tax on liquidity would affect the incentives of the activist investors, firm executives, and other market participants who are at the heart of the short-termism debate, which posits that public companies are foregoing profitable long-term investment due to an excessive focus on short-term stock returns.

\textsuperscript{47} See Baltagi et al., supra note 38.
\textsuperscript{48} See Liu, supra note 40.
III. Probable harm to jobs, wage growth and public works

The increased trading costs from an FTT would lead to lower asset prices, which in turn increases the cost of capital for both private sector businesses and the public sector – at each of the local, state, and federal levels. Schert and Seguin (1993) study the effect of FTTs on cost of capital generally and find that a 50 basis point FTT would increase businesses’ cost of capital by up to 180 basis points. The higher cost of capital for corporations would negatively impact their ability to fund new investments and grow, while also lowering after-tax returns. The long-run impact would be borne by workers, both in the form of fewer jobs as well as lower wages, resulting from the increase in the firm’s costs. State and local governments would also suffer from the effects of an FTT. The higher cost of capital on municipal borrowing would negatively impact the funding of public works and infrastructure projects, while also raising interest payments on public borrowing that ultimately would be borne by all taxpayers.

50 See, e.g., Paul H. Kupiec, Noise traders, excess volatility, and a securities transactions tax, 10(2) J. of Fin. Services Research 115 (June 1996).
52 See Matheson, supra note 16.
IV. Unrealistic revenue projections

FTT proponents trumpet its revenue potential, with the Joint Committee on Taxation (“JCT”) projecting total revenue of $777 billion over the next decade. However, while the projection attempts to factor in the reduction in trading activity that would result from the tax – which therefore reduces revenue – the estimate is otherwise static and fails to consider several countervailing effects that would further reduce revenue. For example, the impact on U.S. financial markets discussed above would negatively impact macroeconomic growth in the U.S., thus lowering the tax base for federal income tax receipts and offsetting FTT revenues. Workers would be forced to save more for retirement to counter the costs of the FTT, reducing consumption and consequently lowering GDP growth. Conversely, if workers maintain consumption, then retirement savings would decline, thus depriving U.S. capital markets with a source of capital that companies can use to fund innovation and growth. Either way, the macroeconomy suffers and federal tax receipts would decline. The JCT estimate fails to consider any of these effects.

Not only is the JCT analysis highly speculative in its methodology, but it is also premised on extremely uncertain assumptions. The Congressional Budget Office (“CBO”) highlights that the JCT’s estimate relies on significant uncertainty regarding “how much transactions would drop in response to a tax.” As has been the experience in other countries (e.g. U.K., France and Italy), securities trading often evolves in markets subject to FTTs, either through the creation of new financial instruments that are not subject to the tax or through movement of trading activity out of the country entirely. Variations in any of these assumptions could dramatically reduce actual revenues. It should also be noted that the JCT analysis does not consider a potential market-maker exemption. If the U.S. implementation of an FTT were to include such an exemption, revenues would fall even further short of the current projections.

Another significant concern with the JCT analysis is its failure to consider the effects of an FTT on U.S. government borrowing costs. Since treasuries are taxable securities under the FTT proposals, revenue projections must factor the offsetting effect of the increase in interest payments.

53 Klein, supra note 10.
55 Also noted by the CBO. See id.
owed by the U.S. Treasury. The CBO notes that “[t]he cost to the Treasury of issuing federal debt could increase because of the increase in trading costs and the reduction in liquidity.”

Based on the experiences in other countries, actual revenues are typically significantly less than projected, and a U.S. FTT would likely be no exception. For example, when Sweden imposed an FTT in the mid-1980s, projected annual revenue from its tax on fixed income transactions was SEK 1.5 billion. In the end, actual revenue fell far short of this expectation, averaging roughly SEK 50 million per year - nearly 97 percent less than anticipated. France projected annual revenue of €1.5 billion from its FTT, but generated less than half of that each year, €700 million, during the first two years of implementation. Italy suffered a similar fate with its FTT, generating only €159 million in its first year, 84 percent less than its projection of €1 billion.

56 Id.
58 Id.
Conclusion

Implementing any version of the proposed FTTs would wreak havoc on financial markets and the broader macroeconomy – all without raising the expected tax revenue. The negative consequences would be borne by pension holders, retirees, and other individual investors as they would ultimately pay the tax and receive inferior pricing through increased bid-ask spreads. The quality, efficiency, and resiliency of securities markets would also be compromised. The consequences would reach far beyond Wall Street, as the FTT would potentially undermine capital formation, curb job and wage growth, and discourage innovation outside the financial sector. Moreover, actual revenue raised by an FTT would certainly fall far short of projections. In addition, an FTT imposed unilaterally by the United States, rather than in coordination with other countries, would likely drive trading out of the U.S. and into other jurisdictions, further reducing revenue. The Committee firmly believes that the potential damage to our financial markets and macroeconomy are too great and significantly outweigh any tax revenue from an FTT. Accordingly, the Committee recommends that the proposed FTT not be adopted.

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Should you have any questions or concerns please do not hesitate to contact the Committee’s President, Prof. Hal S. Scott (hscott@law.harvard.edu), or the Committee’s Executive Director, John Gulliver (jgulliver@capmktsreg.org).