

March 12, 2014

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## A Matter of Perspective

Added Costs From a Financial Transaction Tax Would Be Minuscule Compared to Fees Investors Already Pay

## **Acknowledgments**

This paper was written by Taylor Lincoln, Research Director of the Congress Watch division of Public Citizen, and edited by Congress Watch Director Lisa Gilbert. Marcus Stanley, Policy Director for Americans for Financial Reform, and Scott Klinger, Director of Revenue and Spending Policies for the Center for Effective Government, provided helpful comments.

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Public Citizen's Congress Watch  
215 Pennsylvania Ave. S.E  
Washington, D.C. 20003  
P: 202-546-4996  
F: 202-547-7392  
<http://www.citizen.org>

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## Introduction

Proponents of creating a tiny levy, or financial transaction tax (FTT), on transactions involving stocks and other financial products, have justified the proposal on at least three bases:

1. The tax would be fair. Most transactions in which goods are sold are subject to a sales tax. Why shouldn't the same be true for transactions that occur in what is likely the most lucrative sector of the economy?<sup>1</sup> Such a tax would have the added benefit of being progressive, meaning it would fall more heavily on people of greater means. Historically, fewer than one-fifth of households with incomes in the lower 60 percent of the national income spectrum have owned any stock in taxable accounts, according to the Center for Budget and Policy Priorities.<sup>2</sup>
2. The tax would likely make the markets less risky. Proposed FTTs of 0.01 to 0.03 percent would likely dampen the volume of so-called high-frequency trading, which is a strategy in which computers buy and sell massive volumes of stocks and other financial instruments in millisecond intervals. A relatively new phenomenon, high-frequency trading was estimated in 2012 to account for up to 60 percent of all stock transactions and has been blamed for leaving the markets susceptible to dramatic, irrational swings.<sup>3</sup> Such trading is of dubious social value and is arguably predatory because its practitioners exploit technological advantages and tricks (such as posting fake orders to discover prices others are willing to pay) to squeeze minuscule profits out of each trade.<sup>4</sup> These profits come at the expense of ordinary investors. A well-structured FTT would sap much of the profit-making potential out of high-frequency trading without significantly affecting other investors.

The Congressional Budget Office in 2011 appeared to agree. "One argument in favor of a tax on financial transactions is that it might reduce the amount of short-term

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<sup>1</sup> At present, there is a very small fee on transactions that resembles a tax but is not technically a tax. Brokerages often charge a fee, typically less than 10 cents per trade, to cover regulatory fees that they must pay to the Securities and Exchange commission. *See, e.g., Fees to Consider before Your Sell Your Stock*, FINANCIAL WEB (viewed on Jan. 23, 2014), <http://bit.ly/1hPdmY9>.

<sup>2</sup> Joel Friedman and Katherine Richards, *Capital Gains and Dividend Tax Cuts Data Make Clear That High-Income Households Benefit the Most*, CENTER FOR BUDGET AND POLICY PRIORITIES (Jan. 30, 2006), <http://bit.ly/1ehoDwb>.

<sup>3</sup> Tom Polansek, *High-Frequency Trading Does Not Raise Futures Volatility –Study*, REUTERS (Aug. 27, 2013) <http://reut.rs/1luzSXE>. *See also*, Matthew Philips, *How the Robots Lost: High-Frequency Trading's Rise and Fall*, BLOOMBERG BUSINESSWEEK (June 6, 2013), <http://buswk.co/1ciOiDs>.

<sup>4</sup> *See, e.g., Charles Duhigg, Stock Traders Find Speed Pays, in Milliseconds*, THE NEW YORK TIMES (July 23, 2009), <http://nyti.ms/1koMVt4> and Kambiz Foroohar, *Trading Pennies Into \$7 Billion Drives High-Frequency's Cowboys*, BLOOMBERG NEWS (Oct. 6, 2010), <http://bloom.bg/1ftPMLx>.

speculation and computer-assisted high-frequency trading, and direct the resources now dedicated to those activities to more productive uses,” the CBO wrote in 2011. “Excessive speculation can destabilize markets and lead to disruptive events, such as the October 1987 stock market crash and the more recent ‘flash crash’ that occurred when the stock market temporarily plunged on May 6, 2010.”<sup>5</sup>

3. The tax would raise revenue. An FTT of 0.03 percent would raise \$352 billion over nine years, the bipartisan Joint Committee on Taxation estimated in 2011.<sup>6</sup> The Congressional Budget Office estimates that a 0.01 FTT would generate \$180 billion over the nine years beginning in 2015.<sup>7</sup>

Opponents of an FTT have predicted that it would drive up costs for ordinary investors.<sup>8</sup> This paper will illustrate that any costs added by an FTT would be minuscule in relation to the costs that already burden ordinary investors.

- Calculations in this paper show that a person with \$85,000 invested in a mutual fund with average fees and asset turnover rates is paying \$1,144 every year in disclosed and hidden costs. A financial transaction of 0.03 percent would cost an average mutual fund \$24.48 a year to buy and sell stocks on behalf of this hypothetical investor. Assuming these costs were passed on to the investor, the new fees would only increase the investor’s annual costs by 2.1 percent.
- If the investor were to purchase \$85,000 in mutual fund shares at once, a 0.03 percent financial transaction tax would require the investor to pay an extra \$25, in addition to the \$24.48 in recurring costs outlined above. But if the mutual fund in which the investor purchased shares had fees adhering to the industry average, the investor also would also have to pay \$850 in front-end load fees at the point of purchase. Thus, an FTT would raise this investor’s first-year costs by just 2.5 percent.

(Note: Under a bill currently in Congress that would create a 0.03 percent FTT, investors in tax-advantaged accounts, such as 401(k) funds, would be eligible for tax credits to offset their FTT payments.<sup>9</sup>)

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<sup>5</sup> CONGRESSIONAL BUDGET OFFICE, REDUCING THE DEFICIT: SPENDING AND REVENUE OPTIONS (March 2011), <http://1.usa.gov/1j2VcWs>.

<sup>6</sup> Office of Rep. Peter DeFazio (D-Ore), Press Release, *Memo: Joint Tax Committee Finds Harkin, DeFazio Wall Street Trading and Speculators Tax Generates More Than \$350 Billion* (Nov. 9, 2011), <http://1.usa.gov/KgULbb>.

<sup>7</sup> CONGRESSIONAL BUDGET OFFICE, REDUCING THE DEFICIT: SPENDING AND REVENUE OPTIONS (March 2011), <http://1.usa.gov/1j2VcWs>.

<sup>8</sup> See, e.g., *Financial Transaction Tax Resource Center*, SIFMA (viewed on March 11, 2014), <http://bit.ly/1fnWF20>.

A similar disparity would emerge for investors who buy and sell their own stocks.

- An investor with \$85,000 in stock who turns over one-fourth of his or her portfolio every year would pay \$12.24 to comply with a 0.03 percent FTT. In contrast, that investor would already be paying \$163.92 annually in commissions and other costs. The FTT would increase the investor's total costs by about 7.5 percent.

Aside from costs that can be easily quantified, critics of an FTT have claimed that the tax would reduce market liquidity, which refers to the ease with which assets can be bought and sold. Therefore, these critics contend, an FTT would raise transaction costs for investors.<sup>10</sup> This paper does not address these claims, other than to observe that the only form of trading that would be substantively affected by an FTT is high-frequency trading, which did not exist until last decade.

## I. Costs of Proposed Financial Transaction Taxes on Investors in Institutionally Managed Funds

This paper will evaluate costs to investors through two lenses. The first regards costs to investors who entrust their money to institutions, such as mutual funds and pension funds. The second category, discussed in Section II, concerns costs to investors who buy and sell their own individual stocks.

About 65 percent of stock market equities are held by investors in institutionally managed funds.<sup>11</sup> Therefore, the potential effects of an FTT on investors in institutional funds is likely more relevant, on the whole, to ordinary investors than the tax's potential effect on investors who buy and sell their own stocks.

This paper uses mutual funds that trade in stocks as a proxy for the costs borne by institutional investors. Although an FTT also would apply to non-stock transactions, including those involving bonds and derivatives, this paper focuses on costs involving stocks both for simplicity and because most ordinary investors primarily trade in stocks.

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<sup>9</sup> "Wall Street Trading and Speculators Tax Act," S. 410 (113th Congress), <http://1.usa.gov/1kgYNjZ>.

<sup>10</sup> See, e.g., *Frequently Asked Questions on Securities Transaction Taxes*, INVESTMENT COMPANY INSTITUTE (undated; viewed on March 5, 2013), <http://bit.ly/1f19EeN>.

<sup>11</sup> Marshall E. Blume and Donald B. Keim, *Institutional Investors and Stock Market Liquidity: Trends and Relationships*, The Wharton School, University of Pennsylvania (Aug. 21, 2012), at 4, <http://bit.ly/1kqMKyA>. "The proportion of equities managed by institutional investors hovered around 5 percent from 1900 to 1945. But after World War II, institutional ownership started to increase, reaching 67 percent by the end of 2010."

## A. Methodology for Calculating Costs to Investors in Institutionally Managed Funds

### 1. Size of Investment

For purposes of calculating the potential annual costs associated with a financial transaction tax and other costs borne by investors in institutionally managed stock funds, this study assumes that a hypothetical investor has invested \$85,000 in a single fund. This amount is about equal to the size (\$84,300) of the average 401(k) retirement account, as reported by Fidelity Investments in November 2013.<sup>12</sup> Note, because this paper is primarily concerned with the *ratio* of non-FTT costs to potential FTT costs, altering the size of a hypothetical person's investment would not alter this paper's core finding. The ratio of non-FTT to FTT costs would be about the same regardless of the size of the investment.

This study assumes in each discrete case that the individual has invested all of his or her money in a single mutual fund in a single purchase. This methodological decision, which differs from how an ordinary investor would normally act, was made for the sake of simplicity. This decision should not influence this paper's findings. Investors' costs for a single large mutual fund purchase should roughly parallel the costs that they would pay if they purchased the same amount of shares over many years.

Costs that would be borne by an average 401(k) investor are not synonymous with costs borne by an average American. Only about 51 million people in the United States have active 401(k) accounts, according to the latest available estimate of the Investment Company Institute.<sup>13</sup> That represents just more than 20 percent of adults in the United States.<sup>14</sup>

### 2. Selection of Funds

This study assesses how much a hypothetical investor in five mutual funds would pay in existing costs and in costs resulting from FTTs of 0.01 and 0.03 percent. Additionally, this study assesses these costs for an investor in a hypothetical mutual fund that adheres to industry averages for expense ratio, load fees and annual turnover.

Four of the funds included in the study (which are managed by The Vanguard Group, American Funds, Putnam Equity Capital and Calvert Investments) were chosen from the menu of options available through the author's 401(k) plan. The fifth, managed by Fidelity Investments, was chosen because it is listed by the *Wall Street Journal's* Marketwatch Web

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<sup>12</sup> *401(k) Average Balance Reaches New High, Boosted by Resurgent Stock Market*, FIDELITY.COM (Nov. 14, 2013), <http://bit.ly/1avTFoB>.

<sup>13</sup> See, *Frequently Asked Questions About 401(k) Plans*, THE INVESTMENT COMPANY INSTITUTE (viewed on Feb. 27, 2014), <http://bit.ly/1hlYyAU>.

<sup>14</sup> U.S. Census Bureau, 2012 population estimates. The U.S. population was estimated at 308.7 million, of whom 76.5 percent were 18 years of age or older.

page as the largest actively traded mutual fund investing in stocks.<sup>15</sup> The funds selected reflect diversity in investment strategies, total assets, fees, and their turnover rates.

- Vanguard 500 Index Inv. (VFINX) is among the nation's largest mutual funds (\$159.8 billion under management) and uses a strategy of tracking the performance of its benchmark index, the S&P 500. The S&P 500 consists of the largest public companies by capitalization. This fund charges much lower-than-average costs to consumers and has much lower-than-average annual turnover.
- Fidelity Contrafund (FCNTX) and American Funds Capital World G/I (GWGIX) are large (\$111.1 billion and \$85.2 billion) actively managed funds. "Actively managed" is a term for funds in which managers choose which stocks to buy and sell, as opposed to index funds, in which managers maintain a portfolio that parallels a certain universe of stocks. Fidelity Contrafund and American Funds Capital World charge about average fees compared to other mutual funds. The Fidelity fund has average annual turnover; the American fund has significantly below average turnover.
- Putnam Equity Income A (PEYAX) is an actively managed fund with \$5 billion in assets and higher-than-average costs and turnover.
- Calvert Global Water A (CFWAX) is a \$337.4 million fund that invests in businesses that meet its criteria of demonstrating "corporate responsibility standards and strategies."<sup>16</sup> It charges significantly above-average costs and has significantly above-average turnover.

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<sup>15</sup> *The 25 Largest Mutual Funds*, THE WALL STREET JOURNAL (viewed on Jan. 27, 2014), <http://on.mktw.net/1figveq>.

<sup>16</sup> See Calvert Global Water Fund (CFWAX), Calvert Investments Web page (viewed on Jan. 14, 2014), <http://bit.ly/1d1heTV>.



**Table 1: Mutual Funds Included in This Study**

Mutual Fund (Ticker symbol)	Index / Actively Managed	Net Assets	Expense Ratio	Annual Turnover Rate
Vanguard 500 Index Inv (VFINX)	Index	\$159.8 billion	0.17%	3%
Fidelity Contrafund (FCNTX)	Active	\$111.1 billion	0.74%	48%
American Funds Capital World G/I A (CWGIX)	Active	\$85.2 billion	0.82%	23%
Putnam Equity Income A (PEYAX)	Active	\$5.0 billion	1.06%	57%
Calvert Global Water A (CFWAX)	Active	\$337.4 million	1.85%	104%
Industry average mutual fund (hypothetical)	Both	\$398 million	0.77% (asset weighted)	48% (asset weighted)

Sources: Yahoo! Finance (figures as of Jan. 27, 2014) and Investment Company Institute 2013 Fact Book

### 3. Assumptions on Costs Paid by Investors in Institutionally Managed Funds

This paper analyzes existing costs experienced by investors in institutional funds pursuant to the three most significant categories of costs: expense ratio, transaction costs and front-end sales load fees. Costs that would result from FTTs of 0.01 and 0.03 percent also are calculated.<sup>17</sup> It is assumed that FTT-related costs borne by mutual funds for trading stocks would be passed along to investors.

For reasons of simplicity, not all existing costs are included in this study. However, omission of less significant costs does not alter the core conclusion of this paper, which is that expenses already borne by ordinary investors dwarf those that would be added by an FTT. If other costs were added, the ratio of current costs to those potentially imposed by an FTT would simply rise further.

The three categories of costs assessed are explained below.

1. The **annual report expense ratio**. The expense ratio is officially defined as “the percentage of assets deducted each fiscal year for fund expenses.”<sup>18</sup> The *annual report expense ratio*, used in this study, is drawn from the fund’s audited annual report. In reality, not all expenses are included in a fund’s reported expense ratio. As *Morningstar* notes,

<sup>17</sup> For more on costs, see, Ty A. Bernicke, *The Real Cost of Owning a Mutual Fund*, FORBES (April 4, 2011), <http://onforb.es/1caQffw> and *Mutual Funds: The Costs*, INVESTOPEDIA (viewed on Jan. 24, 2014), <http://bit.ly/1itX2ig>.

<sup>18</sup> *Expense Ratio*, MORNINGSTAR (viewed on Jan. 27, 2014), <http://bit.ly/L1jfpq>.



“Portfolio transaction fees ... as well as initial or deferred sales charges are not included in the expense ratio.”<sup>19</sup>

Costs pursuant to the expense ratio reduce a fund’s performance. For instance, if an investor purchased shares in a fund with a 1 percent expense ratio and the stocks the fund owned neither gained nor lost value for one year, the investor’s capital would be 1 percent less at the end of the year, notwithstanding factors not included in the expense ratio. Expense ratios in 2012 for mutual funds investing in stocks (known as “equity funds” in industry terminology) averaged 0.77 percent, according to the Investor Company Institute.<sup>20</sup>

For this study, costs relating to expense ratio were calculated by taking each fund’s annual report expense ratio and that for a hypothetical fund that adheres to industry averages, and multiplying each by \$85,000, the amount this study assumes an individual has invested in a mutual fund.

2. Funds experience **transaction costs** for buying and selling stocks. Such expenditures are not included within reported expense ratios.<sup>21</sup> Transaction costs primarily consist three categories: 1) losses due to the discrepancy in the difference between the prices that sellers are demanding and buyers are offering for a stock at any given time (known as the “bid-ask spread”); 2) the effect on a stock’s price of making large purchases or sales (known as the “price impact” or “market impact”); and 3) the administrative costs of conducting a transaction on an exchange, essentially commissions.

Professors Roger Edelen, Richard Evans and Gregory Kadlec in 2013 published a study concluding that the average cost associated with a mutual fund transaction is 0.8 percent.<sup>22</sup> John Bogle, who founded the mutual fund company The Vanguard Group, estimates transaction costs to average 0.6 percent.<sup>23</sup> Elkins McSherry, a business that analyzes securities transaction costs, estimates per-unit transaction costs at 0.4 percent.<sup>24</sup> This

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<sup>19</sup> *Id.*

<sup>20</sup> *Trends in the Expenses and Fees of Mutual Funds, 2012*, ICI RESEARCH PERSPECTIVE (April 2013), <http://bit.ly/1m1fOgO>.

<sup>21</sup> See, e.g., *Morningstar Investing Glossary: Expense Ratio*, MORNINGSTAR (viewed on Jan. 14, 2014), <http://bit.ly/L1jfpq>.

<sup>22</sup> Roger Edelen (associate professor of finance at the University of California, Davis), Richard Evans (assistant professor of business administration at the Darden School of Business, University of Virginia, Charlottesville) and Gregory Kadlec (R.B. Pamplin Professor of Finance at Virginia Tech, Blacksburg), *Shedding Light on ‘Invisible’ Costs: Trading Costs and Mutual Fund Performance* (February 2013), <http://bit.ly/1cq9DLf>.

<sup>23</sup> See, e.g., Susan Weiner, *Using Trading Costs to Identify Better Mutual Funds*, ADVISOR PERSPECTIVES (2007), <http://bit.ly/1cWnL3v>.

<sup>24</sup> *Asset Owners Should Measure Turnover Rates in Conjunction with Trading Costs*, ELKINS MCSHERRY LLC NEWSLETTER (August 2012), <http://bit.ly/M4rVwy>.

paper adopts a methodology of averaging the aforementioned estimates, yielding a 0.6 percent transaction cost.

If one assumes a 0.6 percent transaction cost, the annual costs to an investor in a fund should be calculated by multiplying 0.6 percent by 2 (yielding 1.2 percent), then multiplying 1.2 percent by the fund's reported annual turnover rate, then multiplying that result by the amount of principal invested.

Multiplying the per-unit transaction cost by two is necessary because both a purchase and a sale is necessary to constitute an instance of reportable fund turnover. In simplified terms, if a fund consists of 10 stocks of equal value and reports 100 percent annual turnover, it must have sold 10 stocks and made equivalent purchases to replace them.<sup>25</sup>

**3. Front-end sales load fees** are expenses paid by investors when they purchase shares of mutual funds. The fees typically are paid by funds to brokers as commissions, although funds may retain the sales loads fees that they charge.

The Financial Industry Regulatory Authority, a private entity that regulates the securities industry, caps front-end sales loads at 8.5 percent.<sup>26</sup> Funds must disclose their maximum front-end sales load but have discretion to waive some or all of that fee, and often do. In 2012, the average disclosed maximum front-end sales load for the purchase of stock mutual funds was 5.3 percent, while the average fee charged was 1.0 percent, according to the Investment Company Institute.<sup>27</sup>

For this study, front-end sales load fees for existing funds are calculated based on each fund's reported maximum sales load. For the hypothetical average mutual fund, the 1 percent industry-average sales load is used.

This paper does not assess the effects of **back-end load fees**, which are fees paid by investors in some funds at the point at which they sale shares in the funds. Back-end load fees are less common than front-end loads. According to the Investment Company Institute,

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<sup>25</sup> The Securities and Exchange Commission calls for calculating the rate of portfolio turnover "by dividing (a) the lesser of purchases or sales of portfolio securities for the reporting period by (b) the monthly average of the value of the portfolio securities owned by the registrant during the reporting period." Thus, in order for a fund to have 100 percent turnover, it would not only need to sell assets equivalent to the amount of capital under its management, but also to purchase an equivalent value of replacement assets. See *Form N-SAR Semi-Annual Report for Registered Investment Companies*, U.S. SECURITIES AND EXCHANGE COMMISSION, at 12, <http://1.usa.gov/1dFNtWX>.

<sup>26</sup> *Investor Fees: Sales Loads*, U.S. SECURITIES AND EXCHANGE COMMISSION (viewed on Jan. 14, 2014), <http://1.usa.gov/1Zkwgp>.

<sup>27</sup> *Trends in the Expenses and Fees of Mutual Funds, 2012*, ICI RESEARCH PERSPECTIVE (APRIL 2013), <http://bit.ly/1m1fOgO>.

\$424 billion was invested in mutual funds with back-end load fees in 2012, compared to \$1.9 trillion invested in funds with front-end loads.<sup>28</sup>

## B. Findings

At present, investors in institutionally managed funds pay costs that significantly hinder their returns. Such costs dwarf those that might be added by an FTT. An investor in an average mutual fund pays nearly 0.8 percent of his or her capital in annual fees that are included in the fund's reported expense ratio. The investor pays additional, hidden transaction costs of nearly 0.8 percent of capital. Thus, an investor in an average mutual fund absorbs annual costs amounting to nearly 1.6 percent of his or her capital.

Existing costs to invest \$85,000 in the funds included in this study would range from \$175 to \$2,633 annually, and \$1,144 to invest in a hypothetical average fund. [See Table 2]

**Table 2: Existing Annual Costs Borne Currently Borne By Investors in Selected Institutionally Managed Funds**  
(Hypothetical example involves investor with \$85,000 invested in a given fund)

	Vanguard (VFINX)	American (CWGIX)	Fidelity (FCNTX)	Putnam (PEYAX)	Calvert (CFWAX)	Average Equity Mutual Fund
Amount invested	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
Reported expense ratio	0.17%	0.82%	0.74%	1.06%	1.85%	0.77%
Expense ratio cost	\$144.50	\$697.00	\$629.00	\$901.00	\$1,572.50	\$654.50
Reported annual turnover	3%	23%	48%	57%	104%	48%
Turnover cost calculated by Public Citizen (Equals [Size of Investment] x [Reported annual turnover] x 0.6% x 2 )	\$30.60	\$234.60	\$489.60	\$581.40	\$1,060.80	\$489.60
% of investment lost due to annual turnover costs	0.04%	0.28%	0.58%	0.68%	1.25%	0.58%
Total non-FTT costs (excluding front-end load)	\$175.10	\$931.60	\$1,118.60	\$1,482.40	\$2,633.30	\$1,144.10
% of investment lost due to non-FTT costs (excluding load)	0.21%	1.10%	1.32%	1.74%	3.10%	1.35%

Sources: Yahoo! Finance (figures as of Jan. 27, 2014) and Public Citizen calculations

<sup>28</sup> INVESTMENT COMPANY INSTITUTE, 2013 INVESTMENT COMPANY FACT BOOK, CHAPTER 5: MUTUAL FUND EXPENSES AND FEES (2013), at 86, <http://bit.ly/1caNTax>.

In proportion to the amount that investors in institutionally managed funds already pay, the costs resulting from an FTT of 0.01 or 0.03 percent would be tiny.

This paper calculates two categories of costs that investors would pay pertaining to an FTT: turnover costs and purchase costs. Turnover costs, discussed first, would result from a fund's purchase and sale its assets. For each transaction, it would have to pay the tax, and that cost would be passed on to investors.

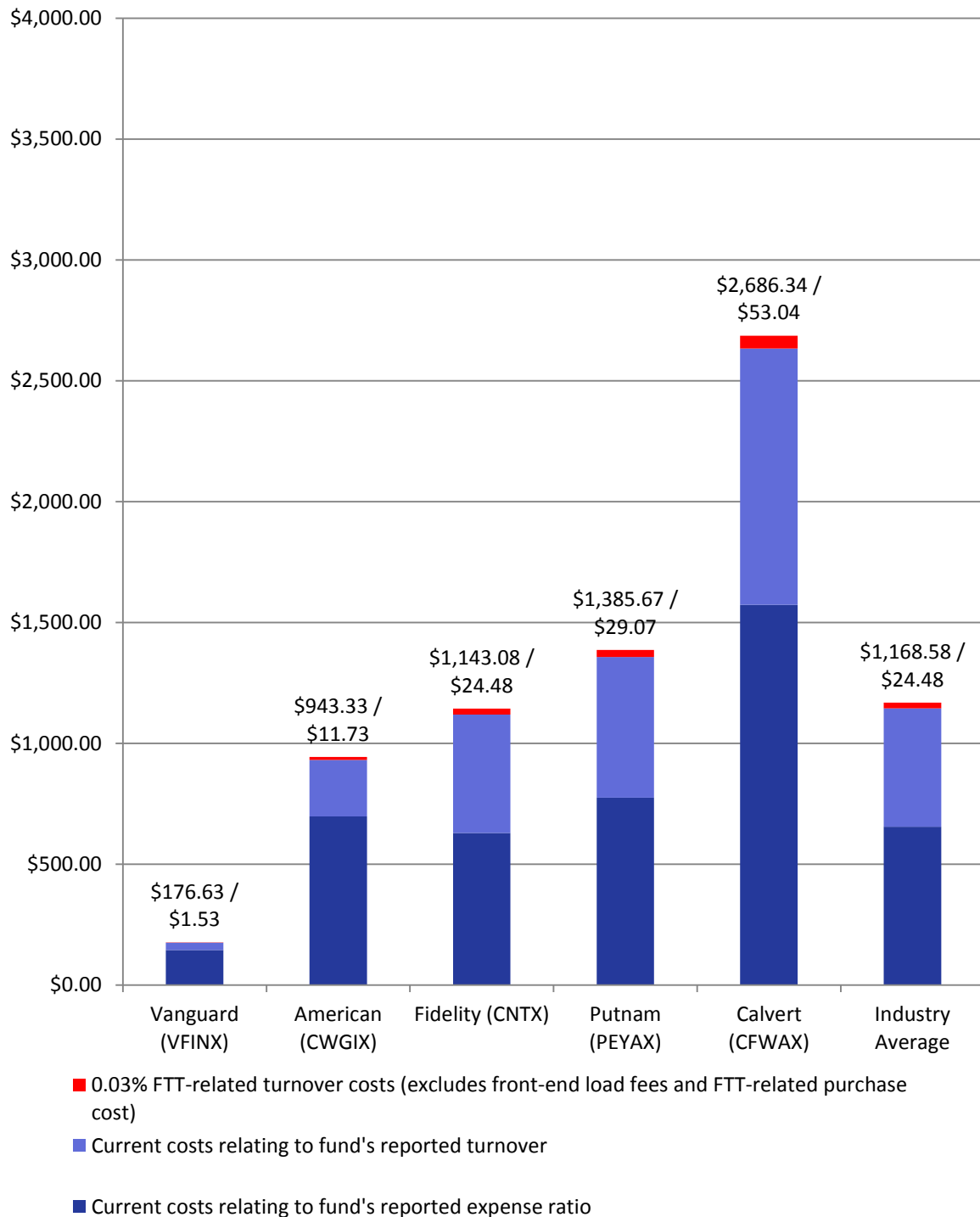
The annual FTT turnover costs that investors in funds included in this study would pay pursuant to a 0.03 percent FTT on \$85,000 of capital would range from \$1.53 to \$53.04. Investors in a hypothetical average mutual fund would pay \$24.48 in annual FTT turnover costs on \$85,000 of capital. [See Table 3 for data on FTT turnover costs. A graphical display of turnover costs relating to a 0.03 percent FTT in relation to existing costs is provided in Figure 1, on the ensuing page.]

**Table 3: Annual Recurring Costs Borne by Investor, Taking Into Account Turnover Costs Relating to a Financial Transaction Tax**  
(Hypothetical example for individual with \$85,000 invested in a given fund)

	Vanguard (VFINX)	American (CWGIX)	Fidelity (FCNTX)	Putnam (PEYAX)	Calvert (CFWAX)	Average Stock Mutual Fund
Amount invested	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
Total non-FTT costs (excluding front-end load) (as shown in Table 2)	\$175.10	\$931.60	\$1,118.60	\$1,482.40	\$2,633.30	\$1,144.10
FTT turnover costs						
FTT at 0.01%	\$0.51	\$3.91	\$8.16	\$9.69	\$17.68	\$8.16
FTT at 0.03%	\$1.53	\$11.73	\$24.48	\$29.07	\$53.04	\$24.48
Total annual recurring costs including FTT turnover costs						
FTT at 0.01%	\$175.61	\$935.51	\$1,126.76	\$1,492.09	\$2,650.98	\$1,152.26
FTT at 0.03%	\$176.63	\$943.33	\$1,143.08	\$1,511.47	\$2,686.34	\$1,168.58
Effective recurring tax rate on total investment						
FTT at 0.01%	0.0006%	0.0046%	0.0096%	0.0114%	0.0208%	0.0096%
FTT at 0.03%	0.0018%	0.0138%	0.0288%	0.0342%	0.0624%	0.0288%
Percent of recurring annual costs from FTT						
FTT at 0.01%	0.2904%	0.4180%	0.7242%	0.6494%	0.6669%	0.7082%
FTT at 0.03%	0.8662%	1.2434%	2.1416%	1.9233%	1.9744%	2.0949%

Source: Public Citizen calculations

**Figure 1: Annual Costs for Selected Mutual Funds, Including Existing Fees Except for Load Plus Turnover-Related Costs Associated With a 0.03% FTT**  
 (Data labels show Totals/FTT component)



Aside from costs relating to a fund's turnover, investors in institutionally managed funds would potentially have to pay FTT-related fees when they purchased and sold shares in a fund. In this paper, these are termed FTT purchase costs. These costs would not necessarily apply to everyone. For example, the Wall Street Trading and Speculators Tax Act, which would institute a 0.03 percent FTT, would provide credits for investors in tax-preferred accounts, such as retirement accounts.<sup>29</sup> For those who would not receive credits, an FTT of 0.03 percent would impose a cost of \$25.50 on an individual purchasing \$85,000 in mutual fund shares, and a subsequent 0.03 percent cost at the point of sale. (This paper assumes that the sale would not occur in the first year of investment.) [See Table 4 and Figure 2 on the next page.]

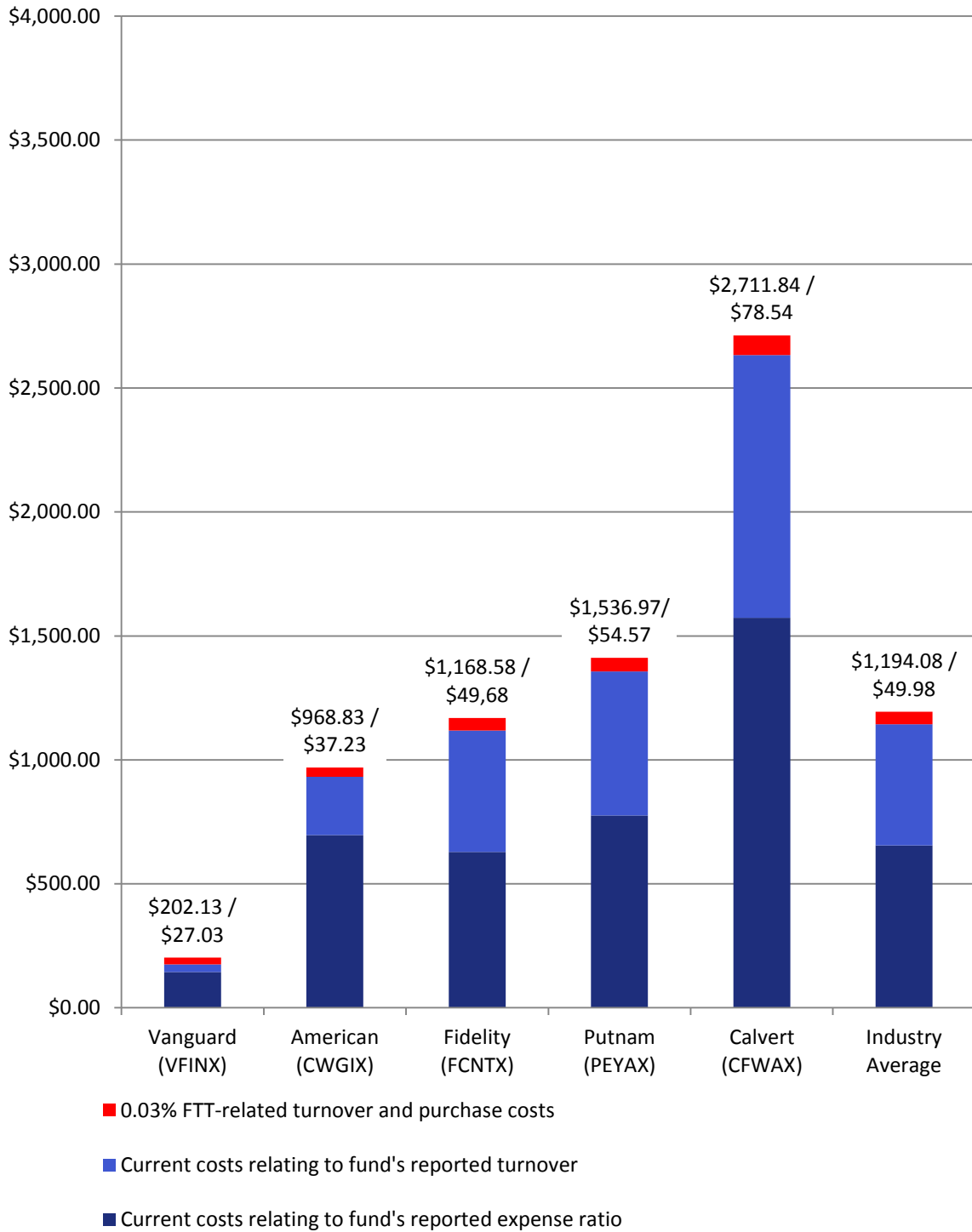
**Table 4: First-Year Costs Borne by Investor, Taking Into Account FTT Turnover and Purchase Costs and Existing Costs, But Excluding Load**  
(Hypothetical example involves investor with \$85,000 invested in a given fund)

	Vanguard (VFINX)	American (CWGIX)	Fidelity (FCNTX)	Putnam (PEYAX)	Calvert (CFWAX)	Average Equity Mutual Fund
Amount Invested	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
FTT Purchase cost						
FTT at 0.01%	\$8.50	\$8.50	\$8.50	\$8.50	\$8.50	\$8.50
FTT at 0.03%	\$25.50	\$25.50	\$25.50	\$25.50	\$25.50	\$25.50
Total costs for FTT, including purchase and turnover costs (Turnover costs shown in Table 3)						
FTT at 0.01%	\$9.01	\$12.41	\$16.66	\$18.19	\$26.18	\$16.66
FTT at 0.03%	\$27.03	\$37.23	\$49.98	\$54.57	\$78.54	\$49.98
Total costs, including all costs associated with FTT plus non-FTT costs excluding load (Non-FTT costs shown in Table 2)						
FTT at 0.01%	\$184.11	\$944.01	\$1,135.26	\$1,500.59	\$2,659.48	\$1,160.76
FTT at 0.03%	\$202.13	\$968.83	\$1,168.58	\$1,536.97	\$2,711.84	\$1,194.08
Effective tax rate on investment resulting from an FTT, including FTT purchase and turnover costs						
FTT at 0.01%	0.01%	0.01%	0.02%	0.02%	0.03%	0.02%
FTT at 0.03%	0.03%	0.04%	0.06%	0.06%	0.09%	0.06%
Percent of total costs (excluding front-end load) reflected in FTT turnover and purchase costs						
FTT at 0.01%	4.89%	1.31%	1.47%	1.21%	0.98%	1.44%
FTT at 0.03%	13.37%	3.84%	4.28%	3.55%	2.90%	4.19%

Source: Public Citizen calculations

<sup>29</sup> "Wall Street Trading and Speculators Tax Act," S. 410 (113th Congress), <http://1.usa.gov/1kgYNjZ>.

**Figure 2 : Annual Fees for Selected Mutual Funds, Including Existing Fees and Both Turnover-Related Costs and Purchase Costs Associated With a 0.03% FTT**  
 (Data labels show Totals/FTT component)





The relative toll of an FTT on investors in institutionally managed funds would be even smaller in relation to existing costs if one takes front-end sales load fees into account. Calculating the actual effects of sales load fees on investors in any given fund is difficult because the average fees that funds charge in practice are just a fraction of the maximum sales loads that they are required to disclose. The average mutual fund reports a maximum front-end load fee of 5.3 percent but only charges 1 percent in practice.<sup>30</sup> Thus, 1 percent is a more instructive figure than the 4.75 to 5.75 percent maximums that three of the funds included in this study report.

Based on the average front-end sales load of 1 percent, an individual purchasing \$85,000 of shares in a mutual fund would pay \$850 in sales load fees. If a 0.03 percent FTT were applied to that investor's purchase, his or her FTT-related costs for purchase and a year's worth of turnover costs would be just \$49.98. Thus, the average sales load, alone, would be 17 times greater than the amount than an investor in an average fund would pay in total FTT-related fees in the first year. [See Table 5]

**Table 5: First-Year Costs Borne by Investor, Taking Into Account FTT Turnover and Purchase Costs and Existing Costs, Including Load**

	Vanguard (VFINX)	American (CWGIX)	Fidelity (FCNTX)	Putnam (PEYAX)	Calvert (CFWAX)	Average Equity Mutual Fund
Amount invested	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000
Total costs FTT, including Turnover and Purchase costs (as shown in Table 4)						
FTT at 0.01%	\$9.01	\$12.41	\$16.66	\$18.19	\$26.18	\$16.66
FTT at 0.03%	\$27.03	\$37.23	\$49.98	\$54.57	\$78.54	\$49.98
Maximum front-end load %	0%	5.75%	0%	5.75%	4.75%	1.00%
Maximum front-end load cost	\$0	\$4,887.50	\$0	\$4,887.50	\$4,037.50	\$850.00
Total non-FTT costs (including maximum front- end load)	\$175.10	\$5,819.10	\$1,118.60	\$6,369.90	\$6,670.80	\$1,994.10
% of investment lost due to non-FTT costs (including maximum front- end load)	0.21%	6.85%	1.32%	7.49%	7.85%	2.35%
Percent of costs, including load, reflected in an FTT						
FTT at 0.01%	4.89%	0.21%	1.47%	0.28%	0.39%	0.83%
FTT at 0.03%	13.37%	0.64%	4.28%	0.85%	1.16%	2.45%

<sup>30</sup> *Trends in the Expenses and Fees of Mutual Funds, 2012*, ICI RESEARCH PERSPECTIVE (APRIL 2013), <http://bit.ly/1m1fOgO>.

## II. Costs of Proposed Financial Transaction Taxes on Investors Managing Own Portfolio

### A. Methodology

#### 1. Assumptions on Investor Activity

The study assumes that an individual has \$85,000 invested in a diversified portfolio of stocks, with 3 percent of his or her money invested in each stock. This means the investor holds about 33 stocks, with an average stock value of about \$2,550. Additionally, this study assumes that the investor trades 25 percent of his or her portfolio each year. For the sake of this example, stock prices are assumed to remain the same throughout the year. Although that would not occur in reality, this methodology was chosen because changes in stock prices cannot be predicted and would not significantly affect this paper's calculations on trading costs.

With these assumptions, the investor would make eight stock sales and eight purchases a year, cumulative involving \$40,800 in purchases and sales.

#### 2. Assumptions on Costs Paid by Investors Managing Own Portfolio

This study's methodology assumes two types of costs that a retail investor currently pays: commissions paid to a broker and costs relating to the bid-ask spread. Additionally, the paper assesses how much investors would pay if a financial transaction tax of 0.01 percent or 0.03 percent were implemented.

**Commissions paid to a broker.** This study's methodology uses prices from TD Ameritrade, which is one of the three largest online brokerages, along with Charles Schwab and E\*Trade.<sup>31</sup> Here, this paper assesses three subsets of costs, associated with three different transaction methods: online, through a touch-tone telephone, and through a telephone conversation with a discount brokerage representative. [See Table 6]

In the interest of making conservative estimates, this paper does not consider costs for trading with full-service brokers, which can be several times those of discount brokers.

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<sup>31</sup> Maxime Rieman, *Etrade vs. TD Ameritrade vs. Schwab: Reviewing the Biggest Online Brokers*, NERDWALLET INVESTING (March 5, 2013), <http://bit.ly/1d6sZZi>.

**Table 6: Commissions Charged by TD Ameritrade for Sale and Purchase of Stocks**

Method of Transaction	Cost
Online	\$9.99
Touch-tone	\$34.99
Phone conversation	\$44.99

Source: TD Ameritrade

**Bid-ask spread.** As discussed briefly in Section I, there is a transaction cost in selling or purchasing an asset because, at any given time, a slightly discrepancy exists between the price for which a stock is being offered for sale and the price for which buyers are offering to purchase a stock.

Therefore, if an investor sought to sell a stock and purchase the same stock at the exact same time, the investor would suffer a small loss in value. The bid-ask spread tends to be lower for highly traded large stocks than for less frequently traded assets. For this study, bid-ask differentials for a specific time were recorded for stocks of companies at the top of each quintile in *Fortune's* 2013 list of the largest companies by revenues.<sup>32</sup> Companies included were Wal-Mart Stores Inc. (1st), 3M Co. (101st), Yum Brands (201st), Ball (301st) and Region Financial (401st). The bid-ask spreads for these companies were as follows in Table 7.

**Table 7: Bid-Ask Spread for Stocks Concerning Companies Representing Each Quintile of the Fortune 500**  
(as observed during the morning of Jan. 8, 2013)

Company	Bid	Ask	% Difference
Wal Mart Stores Inc. (WMT)	\$78.05	\$78.06	0.01%
3M Co. (MMM)	\$137.28	\$137.30	0.01%
Yum Brands (YUM)	\$76.83	\$76.84	0.01%
Ball (BLL)	\$52.03	\$52.06	0.06%
Regions Financial Corporation (RF)	\$10.21	\$10.22	0.10%

Source: Yahoo Finance!

The snapshot in Table 7 indicates a mean bid-ask spread of 0.04 percent and a median of 0.01. In the interest of estimating existing costs conservatively, this paper uses the median of 0.01 percent as the estimated transaction costs relating to the bid-ask spread.

<sup>32</sup> The list of companies is available on CNN's Web site, <http://cnnmon.ie/1b1AH3Z>.

## B. Findings

In the scenario analyzed, in which a retail investor has a portfolio of \$85,000 and turns over 25 percent of his or her portfolio every year, the investor's annual costs relating to a 0.01 percent FTT would be \$4.08 and costs relating to a 0.03 percent FTT would be \$12.24.

In contrast, the investor's existing annual costs using the cheapest method of trading via Ameritrade would be \$163.92 per year, mostly consisting of commission fees. Thus, a 0.01 percent FTT would make up about 2.43 percent of the investor's annual costs, assuming the investor uses the cheapest trading option. A 0.03 percent FTT would make up 6.95 percent of the investor's annual trading costs. [See Tables 8 and 9 for data, and Figure 3, on the next page, for a graphical comparison.]

**Table 8: Annual Costs for an Investor With a Portfolio of \$85,000 Who Trades One-Fourth of Portfolio in a Given Year Assuming a 0.01 Percent FTT**

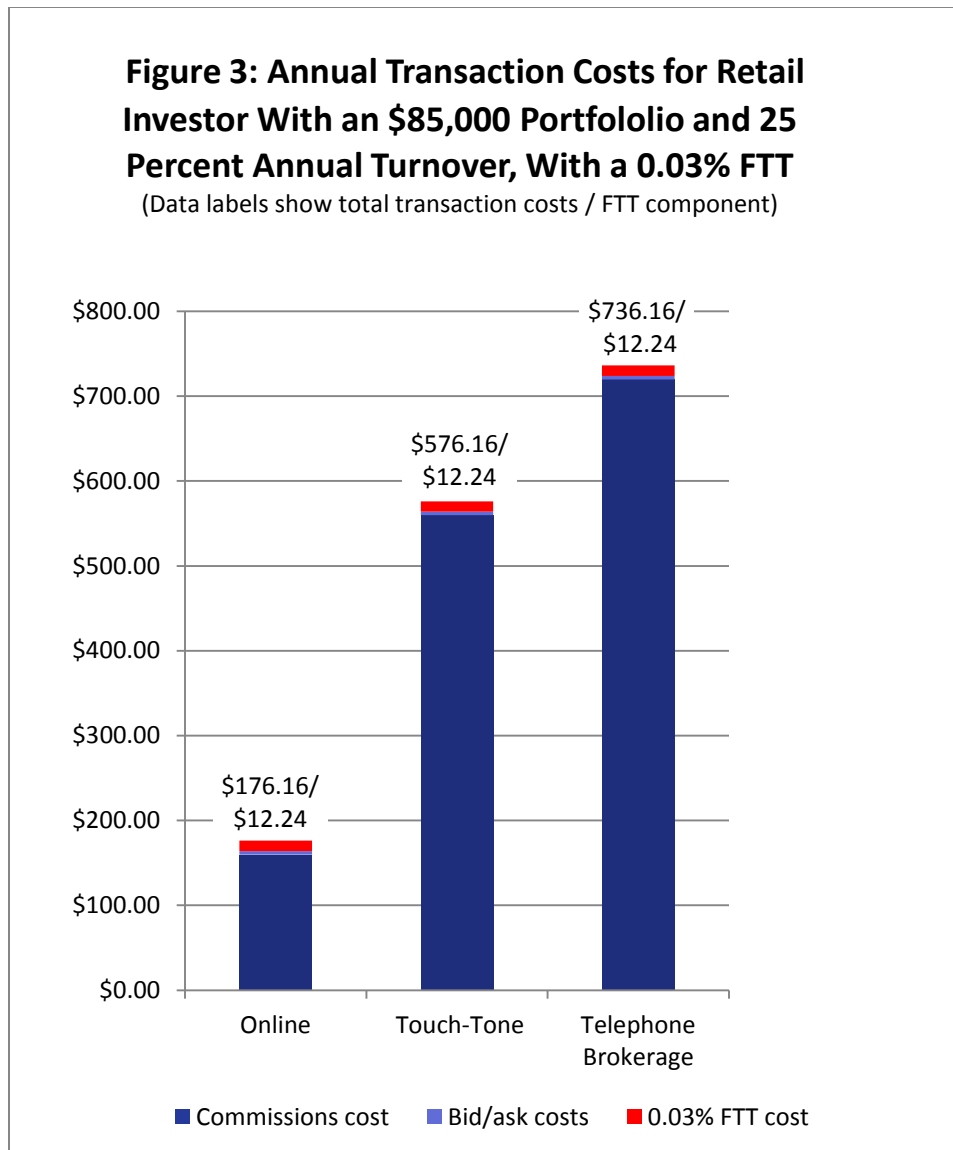
Transaction Method	Commission Per Trade	Number of Trades	Total Value of Stocks Traded	Annual Commissions	Annual Bid/Ask Spread Costs	Cost of 0.01 Percent FTT	Total Transaction Costs Without FTT	Total Transaction Costs With FTT	% of Costs Imposed by 0.01% FTT
Online	\$9.99	16	\$40,800	\$159.84	\$4.08	\$4.08	\$163.92	\$168.00	2.43%
Touch-tone	\$34.99	16	\$40,800	\$559.84	\$4.08	\$4.08	\$563.92	\$568.00	0.72%
Phone conversation	\$44.99	16	\$40,800	\$719.84	\$4.08	\$4.08	\$723.92	\$728.00	0.56%

Source: Ameritrade and Public Citizen analysis

**Table 9: Annual Costs for an Investor With a Portfolio of \$85,000 Who Trades One-Fourth of Portfolio in a Given Year Assuming a 0.03 Percent FTT**

Transaction Method	Commission Per Trade	# of Trades	Total Value of Stocks Traded	Annual Commissions	Annual Bid/Ask Spread Costs	Cost of 0.03% FTT	Total Transaction Costs Without FTT	Total Transaction Costs With FTT	% of Costs Imposed by 0.03% FTT
Online	\$9.99	16	\$40,800	\$159.84	\$4.08	\$12.24	\$163.92	\$176.16	6.95%
Touch-tone	\$34.99	16	\$40,800	\$559.84	\$4.08	\$12.24	\$563.92	\$576.16	2.12%
Phone conversation	\$44.99	16	\$40,800	\$719.84	\$4.08	\$12.24	\$723.92	\$736.16	1.66%

Source: Ameritrade and Public Citizen analysis



## Conclusion

Costs already borne by ordinary investors, both by those invested in institutional funds and self-directed investors in the stock market tend to be on the order of 12 to 25 times greater than those that might be added by implementing a financial transaction tax of 0.03 percent. If potential sales load fees are included, the ratio would be much higher.

Industry representatives who profess concern for American investors could bolster their credibility by using their platform and resources to educate investors on the poorly understood charges under the current regime that are eroding returns instead of fighting a tax that would be barely perceptible to most investors.