A Case Study on the Effects of a Financial Transaction Tax on Savers in Florida

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Overview

Florida has a population[1] of 21.48 million people. Individuals in Florida are invested in the stock market through pension funds such as the Florida Retirement System Defined Benefit Pension Plan, 529 college savings plans such as Florida 529 Savings Plan, ABLE plans such as ABLE United and individually through individual retirement accounts (IRAs) and 401(k)s.

There are various proposals pending in Congress for a financial transaction tax (FTT). The following report provides an analysis of the projected impact a FTT would have on holders of 401(k) plans, 529 college savings plans, public pension plans and individual investors. The analysis includes the projected impact of a "Type 1" tax on trading (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives); a "Type 2" tax on trading (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives); and a "Type 3" tax on trading (2 basis points across asset classes increasing incrementally over 5 years to 10 basis points ongoing).

Key Findings

FTT Impact on Florida Retirement System Defined Benefit Pension Plan:

TYPE OF FTT	YEARLY PROJECTED BURDEN	**20 YEARS** (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)	**30 YEARS** (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$92.87 million	$4.43 billion	$10.09 billion
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives)	$37.04 million	$1.77 billion	$4.03 billion
TYPE 3 (2 basis points across asset classes increasing incrementally over 5 years to	$27.12 million	N/A	$951.35 million

[1] *U.S. Census Bureau QuickFacts: Florida*. (n.d.). Census Bureau QuickFacts. https://www.census.gov/quickfacts/FL

10 basis points ongoing)			

<u>FTT Impact on Florida 529 Plan Participants</u>:

TYPE OF FTT	YEARLY PROJECTED BURDEN	20 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)	30 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$195,400 or in state tuition for 51 students per year	$9.33 million	$21.24 million
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives)	$139,510 or in state tuition for 36 students per year	$6.66 million	$15.16 million

<u>FTT Impact on ABLE United Participants:</u>

TYPE OF FTT	YEARLY PROJECTED BURDEN	20 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)	30 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$3768.21	$7412.64	$14581.79
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis	$2220.07	$4367.22	$8590.98

points on derivatives)			

FTT Impact on the Individual Investor in Florida

TYPE OF FTT	**YEARLY PROJECTED BURDEN PER INDIVIDUAL**	**OVER 40 YEARS** (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$51.80	$11,886
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives)	$15.76	$3,657
TYPE 3 (2 basis points across asset classes increasing incrementally over 5 years to 10 basis points ongoing)	$3	$2977

I. Florida Retirement System Defined Benefit Pension Plan Analysis

The following is a case study that outlines the impact a FTT would have on Florida Retirement System (FRS) Defined Benefit Pension Plan participants.

The Florida Retirement System (FRS) Defined Benefit Pension Plan was founded in 1970 with the purpose of providing a defined retirement, disability, and survivor benefits program to public employees. Under the plan, participants receive a cost-of-living adjustment based on the inflation rate (CPI) last year. On March 31, 2020, there were 496,581 actively employed FRS members, which equals 76% of the total actively employed FRS members. Notably, the Public Pension Standards Award for Funding and in 2019 was presented to the Florida Retirement System Pension Plan in 2019. In 2011, the FRS was recognized by iCIO, a leading industry publication, as an industry innovator in Public Pension Plans over $15 billion for "innovation for preservation of capital, understanding and acting upon material risks, long-term consistent results, and establishing a solid foundation for future returns."

According to the Florida State Board of Administration's (SBA) Performance Report[2] to the Trustees for April 2020, the Florida Retirement System Defined Benefit Pension Plan has $155.68 billion assets under management, of which 53% are invested in equities, 18.6$ are in bonds, 9.8% are in real estate, 8.1% are in private equity, 9.2% are in strategic investments and 1.3% are in cash and cash equivalents.

For the purpose of this calculation, it is estimated that the Florida Retirement System (FRS) Defined Benefit Pension Plan has a turnover rate of 0.17 for equities, 0.80 for bonds, and 0.48 for derivatives[3]. Calculations of the projected FTT are based on this notional value of the portfolio based on such turnover rate, rather than the assets under management. For the purpose of this case study, the turnover was modeled after publicly available information on average pension fund turnover rates.

It is important to note that public pension plans must continuously rebalance their portfolios, paying out employees each month while also inputting new revenue flow from employees, and that investments in mutual funds are continuously rebalanced.

FTT Impact on Florida Retirement System Defined Benefit Pension Plan:

TYPE OF FTT	YEARLY PROJECTED BURDEN	**20 YEARS** (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)	**30 YEARS** (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10	$92.87 million	$4.43 billion	$10.09 billion

[2] *Performance Report to the Trustees*. (2020, April). https://www.sbafla.com/fsb/Portals/FSB/Content/Performance/Trustees/2020/20200430_Trustees_Performance_Report.pdf?ver=2020-06-22-104112-010

[3] For purposes of the below calculations, this report assumes **turnover rates of 0.472 to 0.51 for public pension funds**, utilizing data collected from mid-size pension funds, depending on asset classes. It should be noted that public pension funds have diverse asset management structures – with some pension funds employing in-house asset managers, and others utilizing third parties – such that the turnover rate could vary according to asset allocations, management (active management vs. investing in mutual funds), and otherwise.

basis points on bonds, 10 basis points on derivatives)			
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives)	$37.04 million	$1.77 billion	$4.03 billion
TYPE 3 (2 basis points across asset classes increasing incrementally over 5 years to 10 basis points ongoing)	$27.12 million	N/A	$951.35 million

Notably, this example does not take into account "widened spreads" and "deadweight loss" which would also result in an increased transaction cost for the pension fund portfolio. The FTT would pose a setback of $92.87 million going to the federal government and require potentially extra funding from the State Treasurers to meet that shortfall.

On an individual level, as of April 14, 2020, US retirees reported an increased reliance on a work sponsored pension plans – 50% reliance[4], which is a majority source of their retirement income.

[4] Gallup. (2020, April 28). *Americans' retirement outlook largely intact*. Gallup.com. https://news.gallup.com/poll/309470/americans-retirement-outlook-largely-intact.aspx

II. Florida 529 Savings Plan Analysis

The following is a case study on the projected impact a FTT would have on Florida 529 Savings Plan participants. The Florida 529 Savings Plan was founded in 2002 with the purpose of encouraging saving for future education costs and is authorized by Section 529 of the Internal Revenue Code as a tax-advantaged saving plan. Overall, in the United States, over 44% of parents utilize 529 plans to save for college. Florida offers a unique College Saving Plan called the Florida 529 Savings Plan. As of December 31, 2019, there were 84,199 savings accounts in the Florida 529 Savings Plan with total assets in 529 Plan reaching over $736.38 million.

An examination of the most recent 2019 report[5] indicates that Florida 529 Savings Plan has $736.38 million AUM, of which 42.12% are invested in equities, 56.13% in bonds, and 1.75% are in cash equivalents.[6]

For the purpose of this calculation, it is estimated that the turnover rate is 4% to 13% for equity index funds, 27% to 33% for equity mutual funds, 26% to 66% for fixed income index funds, and 350% to 400% for fixed income mutual funds.[7] Calculations of the projected FTT are based on this notional value of the portfolio based on such turnover rate, rather than the assets under management.

<u>FTT Impact on Florida 529 Plan Participants</u>:

TYPE OF FTT	YEARLY PROJECTED BURDEN	20 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)	30 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$195,400 or in state tuition for 51 students per year	$9.33 million	$21.24 million
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives)	$139,510 or in state tuition for 36 students per year	$6.66 million	$15.16 million

[5] *Financial Statements*. (2019). College Savings Plans | College Tuition Funding | Florida Prepaid. https://www.myfloridaprepaid.com/wp-content/uploads/2019-Florida-Prepaid-College-Board-Financial-Statements.pdf

[6] The assets are assumed to be equally invested in each Age-based Options for Florida 529 Savings Plan. The individual portfolios are not counted as they represent a relatively small percentage.

[7] Both the equity mutual funds and fixed income mutual funds contain funds of funds (FOF), which can have higher turnover rates and can be taxed multiple times. The assumptions for FOF's turnover rates are conservative, using the average turnover rates of the funds invested by the FOF.

In the past 10 years, the annual growth rate of savings accounts is 4.1% and the annual growth rate of total assets in the 529 Plan is 17.8%. In our calculations, the annual growth rate of savings accounts and the annual growth rate of total assets are not included. The total cost of FTT could be even higher.

In the past 10 years, the annual growth rate of the average account size of 529 plans is 9.8%. In our calculation, the annual growth rate of the average account size of 529 plans is not included. The tax burden on an individual level could be even heavier.

Notably, the impact of an FTT on a “target date” fund would be substantial and multi-layered, given the number of transactions utilized for such funds.

Further, this example does not consider “widened spreads” and “deadweight loss” which would also result in an increased transaction cost for the Florida 529 College Savings Plan.

III. ABLE United Plan Analysis

The following is a case study on the projected impact a FTT would have on ABLE United plan participants. The ABLE United, a type of 529A account, was founded in 2016 with the purpose of allowing individuals with disabilities and their families a tax-advantaged way to save money for disability-related expenses of the account's designated beneficiary. As of June 30, 2019, there are 3,434 participants currently enrolled in the ABLE United plan. The average age of the beneficiary is 31 years old. The average account balance is $4,696.

An examination of the 019 report[8] indicates that the ABLE United plan has $16.13 million AUM, of which 60% are invested in equities, 36.67% are in bonds, and 3.33% are in cash equivalents. Asset distribution across investment options: Conservative Portfolio – 25%, Moderate Portfolio – 16%, Growth Portfolio – 20%, FDIC Savings Fund – 2%, US Stock Fund – 12%, International Stock Fund – 3%, US Bond Fund – 4%, Money Market Fund – 18%.

For the purpose of this calculation, it is estimated that the turnover rate is 4% to 13% for equity index funds, 27% to 33% for equity mutual funds, 26% to 66% for fixed income index funds, and 350% to 400% for fixed income mutual funds. Calculations of the projected FTT are based on this notional value of the portfolio based on such turnover rate, rather than the assets under management. For the purpose of this case study, the turnover was modeled after publicly available information on average ABLE United turnover rates.[9]

FTT Impact on ABLE United Participants:

TYPE OF FTT	YEARLY PROJECTED BURDEN	20 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)	30 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$3768.21	$7412.64	$14581.79
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis	$2220.07	$4367.22	$8590.98

[8] *2018-19 Annual Report*. (2019). ABLE United. https://www.ableunited.com/wp-content/uploads/2019-ABLE-United-Annual-Report.pdf

[9] The turnover rate was modeled after the turnover rates of funds in which the ABLE plan is invested. Check citations for links to annual reports of the funds.

points on derivatives)			

Notably, this example does not consider “widened spreads” and “deadweight loss” which also results in an increased transaction cost for ABLE United plan participants.

IV. Individual Investor/401(k) Analysis

The following is a case study on the projected impact a FTT would have on individual and 401(k) investors in Florida.

Florida has an estimated 11.81 million individuals participating in the stock market as a tool for saving for education, retirement, and other life milestones. This is based on a rate of 55% stock market participation across the United States, according to a Gallup poll last updated in June 2020[10].

An examination of a “typical” 401k portfolio indicates that individual investors[11] on average are invested with – 67.4% in equities, 26.4% in bonds, 6.2% in derivatives (including options) and cash equivalents.

For the purpose of this calculation, it is estimated that the individual investor has $100,000 invested in a mutual fund over 40 years, with an estimated growth rate of 7% a year. Notably, turnover rates can vary widely as high as 400% for some mutual funds and as low as 3% for some index funds. For the purpose of this study case, it is estimated that the turnover rate is 12% for equity funds, 35% for fixed income funds, and 18% for mixed funds. The 401(k) asset-weighted average portfolio turnover rate is 22%, a conservative rate which includes between these valuations.

FTT Impact on the Individual Investor in Florida

TYPE OF FTT	YEARLY PROJECTED BURDEN PER INDIVIDUAL	OVER 40 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.00% per year)
TYPE 1 (10 basis points on equities, 10 basis points on bonds, 10 basis points on derivatives)	$51.80	$11,886
TYPE 2 (50 basis points on equities, 10 basis points on bonds, 0.5 basis points on derivatives)	$15.76	$3,657
TYPE 3 (2 basis points across asset classes increasing incrementally over 5 years to	$3	$2977

[10] . https://news.gallup.com/poll/266807/percentage-americans-owns-stock.aspx

[11] Assume the individual investor at age of 20-30 and have about 40 years remaining before retirement.

10 basis points ongoing)		

Further, this example does not consider "widened spreads" and "deadweight loss" which also account for an increased transaction cost for the individual Florida investor.

Notably, for individual investors invested in a 401(k) qualified retirement plan, the tax would apply under all three of the taxes to accounts that were designed to be eligible for tax benefits under IRS guidelines.

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