



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

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October 2020

Overview

California has a population of 39.51 million and is home to some of the most successful pension plans and savings vehicles in the nation. Investors in California participate in the stock market through pension funds such as CalPERS, 529 College Savings plans such as ScholarShare 529, ABLE plans such as CalABLE and through individual retirement accounts (IRAs) and 401(k)s.

Of the nearly 40 million people in California, an estimated 21,730,500 individuals are participating in the stock market as a tool for saving for education, retirement, and other savings goals. This is based on a rate of 55% of stock market participation across the United States, according to a Gallup poll last updated in June 2020.¹

There are various proposals pending for a financial transaction tax (FTT) in the United States, and the following is an analysis of the projected impact a FTT would have on public pension plans, 529 college savings plans, holders of 401(k)s and individual investors in California. The following analysis takes into account the projected impact of a “Type 1” tax on trading (50 basis points on equities, 10 basis points on bonds, 0.5 basis point derivatives) and “Type 2” tax on trading (10 basis points on equities, bonds and derivatives).

Key Findings

FTT Impact on CalPERS Participants:

TYPE OF FTT	YEARLY PROJECTED BURDEN	20 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.90% per year)	30 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.90% per year)
TYPE 1 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$564 million	\$23.1 billion	\$53.3 billion
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$207 million	\$8.4 billion	\$19.5 billion

FTT Impact on California 529 Plan 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 (50 basis points on equities, 10 basis points on			

¹<https://news.gallup.com/poll/266807/percentage-americans-owns-stock.aspx>.

bonds, and 0.5 basis points on derivatives)	\$742,746	\$30.4 million	\$70.1 million
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$347,198	\$14.2 million	\$32.7 million

FTT Impact on CalABLE Plan 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 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$1,305	\$53,498	\$123,271
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$616	\$25,249	\$58,179

FTT Impact on the Individual Investor in California:

TYPE OF FTT	YEARLY PROJECTED BURDEN PER INDIVIDUAL	OVER 40 YEARS (Cumulative cost including compounding interest assuming a growth rate of 6.00% per year)
TYPE 1 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$214	\$33,150
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$63	\$9,750

I. CalPERS

The California Public Employees Retirement System (“CalPERS”) was founded in 1932 to incentivize public school teachers and agency members to work in California and has been successful in retaining employees to ensure a high-quality workforce. Under the plan, participants receive a cost of living adjustment if the pension plan makes a 7% return each year. There are over 2 million participants currently supported by CalPERS. Notably, in 2017, CalPERS was honored for its reporting transparency and was awarded its third consecutive Distinguished Budget Presentation Award.²

An examination of the 2019 report indicates that CalPERS has \$373 billion assets under management (AUM), of which approximately 50% is invested in global equities, 28% in global debt securities, 21% in private equity and real assets and 1% in liquidity products and minimal exposure to derivative products.

For the purpose of this calculation, it is estimated that CalPERS has a turnover rate of 30% for equities and 117% for bonds. Calculations of the projected FTT are based on this notional value of the portfolio based on such turnover rate, rather than AUM. Additionally, the turnover was modeled after publicly available information on average pension fund turnover rates.

FTT Impact on CalPERS Participants:

TYPE OF FTT	YEARLY PROJECTED BURDEN	20 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.90% per year)	30 YEARS (Cumulative cost including compounding interest assuming a growth rate of 7.90% per year)
TYPE 1 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$564 million	\$23.1 billion	\$53.3 billion
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$207 million	\$8.4 billion	\$19.5 billion

Notably, this example does not consider “widened spreads” and “deadweight loss” which would also result in increased transaction costs for the pension fund portfolio.

²<https://www.calpers.ca.gov/page/newsroom/calpers-news/2017/government-finance-officers-award>.

II. ScholarShare 529

The California 529 College Savings Plan, ScholarShare 529, was founded in 1999 to encourage 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.³ There are 325,000 participants in the ScholarShare 529 Plan. The ScholarShare 529 Plan earned a gold Morningstar analyst rating for college savings plans in 2019.

An examination of the 2019 report indicates that the California 529 Plan has \$9.39 billion AUM, of which approximately 42% is invested in passive age based plans, 24% in active age based plans, 6% in passive diversified equity plans, 5% in index U.S. large cap equity plans and 23% in several other plans.

For the purpose of this calculation, it is estimated that the California 529 Plan has a turnover range of 4-7% for index equities funds, a turnover range of 27-33% for active equities funds, a turnover range of 30-35% for index bond funds and a turnover range of 350-400% for active bond 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. Additionally, the turnover was modeled after publicly available information on average mutual and index funds turnover rates.⁴

FTT Impact on California 529 Plan 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 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$742,746	\$30.4 million	\$70.1 million
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$347,198	\$14.2 million	\$32.7 million

Notably, the impact of a 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 increased transaction costs for the California 529 plan.

³ <https://www.moneyconfidentkids.com/content/mck/news-and-research/news/parents-are-less-stressed-about-college-costs.html>

⁴ The turnover rate was modeled after the range of average rates of turnover from Marketwatch.com for TIAA-CERF funds.

III. CalABLE

The California ABLE Plan, a type of 529A account, was founded in 2018 to allow individuals with disabilities and their families a tax-advantaged way to save money for disability-related expenses for the account's designated beneficiary.

An examination of the 2019 report indicates that the California ABLE Plan has \$5.3 million AUM, of which 30% is invested in a conservative portfolio, 35% in a moderate portfolio and 35% in an aggressive portfolio.

Calculations of the projected FTT are based on this notional value of the portfolio based on such turnover rate, rather than AUM. For purpose of this case study, the turnover was modeled after publicly available information on average turnover rates for the mutual funds and index funds used in the California ABLE plan investment style options.⁵

FTT Impact on CAABLE Plan 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 6.00% per year)
TYPE 1 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$1,305	\$53,498	\$123,271
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$616	\$25,249	\$58,179

Notably, this example does not consider “widened spreads” and “deadweight loss” which would also result in increased transaction costs for the California ABLE Plan.

⁵ The turnover rate was modeled after the range of average rates of turnover from Marketwatch.com for TIAA-CERF funds.

IV. California Individual Investor

An examination of a “typical” 401(k) portfolio and/or individual savings mutual fund indicates that individual investors are invested in 60% are in equities and 40% in bonds.

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 6% a year. The turnover rate of 63% was modeled after publicly available information from Morningstar on average rates.⁶ Notably, turnover rates can vary widely as high as 800% for some mutual funds and as low as 10% for some index funds.

FTT Impact on the Individual Investor in California:

TYPE OF FTT	YEARLY PROJECTED BURDEN PER INDIVIDUAL	OVER 40 YEARS (Cumulative cost including compounding interest assuming a growth rate of 6.00% per year)
TYPE 1 (50 basis points on equities, 10 basis points on bonds, and 0.5 basis points on derivatives)	\$214	\$33,150
TYPE 2 (10 basis points on equities, bonds and derivatives)	\$63	\$9,750

Further, this example does not consider “widened spreads” and “deadweight loss” which result in increased transaction costs for the individual California investor.

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

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⁶ 63% from Morningstar. <https://www.investopedia.com/articles/mutualfund/09/mutual-fund-turnover-rate.asp>