

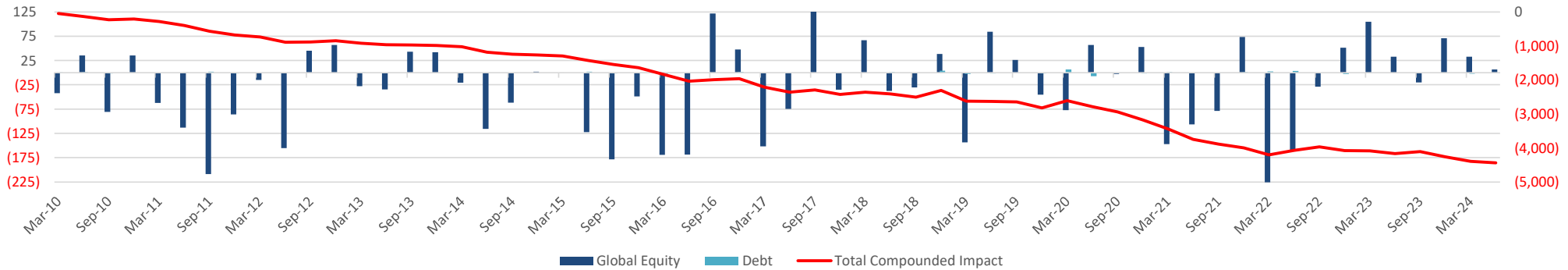


Portfolio Restrictions Cost Analysis

The Investment Committee views engagement as a strategy for the prudent management of risk adjusted returns and opposes any efforts that would either implicitly or explicitly attempt to direct or influence it to pursue investment activities that would violate and breach its fiduciary duties. Based on its analysis, study, and assessment, the Investment Committee may decide to restrict, exclude, or exit such holdings, sectors, sub-sectors, industries, regions, and/or jurisdictions, or take no action as it deems appropriate and consistent with its fiduciary duties.

Total Restriction Impact ¹	
Tobacco prior to 2010	Portfolio Restriction Policy
(5,802,456,257)	(4,436,715,539)
(10,239,171,796)	

Quarterly Restrictions Gain/Loss (\$MM)



Program Impact	Inception	Quarter		6 Months		1 Year		Restriction Period (Inception)		
		\$ (MM) ²	%	\$ (MM) ²	%	\$ (MM) ²	%	\$ (MM) ²	Cumulative	Annualized
Total Fund Restrictions³		(42.81)	0.001%	(172.92)	0.010%	(268.96)	0.025%	(4,436.72)	-1.112%	-0.077%
Global Equity G/L	Jan-10	(41.27)	0.008%	(167.88)	0.037%	(261.25)	0.088%	(4,396.80)	-1.917%	-0.133%
Fixed Income G/L	Jan-10	(1.54)	-0.003%	(5.05)	-0.009%	(7.71)	-0.014%	(39.91)	-0.103%	-0.007%
Tobacco ⁴	Jan-10	(52.51)	-0.007%	(192.14)	-0.009%	(514.08)	-0.156%	(3,814.79)	-1.057%	-0.073%
Firearms ⁵	May-13	8.29	0.011%	4.88	0.020%	99.66	0.124%	(360.37)	-0.201%	-0.027%
Geo Risk ⁴	Oct-22	5.11	0.004%	21.64	0.015%	94.85	0.083%	130.88	0.117%	0.067%
Thermal Coal	Jul-17	(3.71)	0.001%	(7.30)	0.011%	50.61	0.081%	(392.44)	-0.186%	-0.027%

¹ Total Restriction Impact includes the financial impacts of the current Portfolio Restrictions Policy (effective November 2023) and two legacy programs - the Divestment Policy program (January 2010 - October 2023) and the Benchmark Modification Program (March 2000 - December 2009) - reinvested at the return of the Total Fund

² Assumes gains and losses would have earned the return of the Total Fund

³ Return impact is estimated using average market values for each period

⁴ Tobacco and Geopolitical Risk programs are merged under tobacco from January 2010 until October 2022, due to the unavailability of segregated information. Geo Risk corresponds to the exclusion of Iran and other U.S. sanctioned countries. It also includes the exclusion of U.S. Prisons as of January 2019.

⁵ Segregated restriction data available as of December 2016

CalSTRS' Portfolio Restriction Cost Analysis

Background:

This cost analysis tracks the estimated gains and losses associated with CalSTRS' three investment restriction related programs. The current Portfolio Restrictions Policy (effective November 2023) and two Legacy Programs which include the Benchmark Modification program (2000 - 2009) and the Divestment Policy program (2010 – 2023). CalSTRS has excluded several companies, beginning in 2006, when certain companies were excluded due to geopolitical risk concerns, but for the purposes of this analysis the cost of Portfolio Restrictions Policy is calculated as of January 2010.

Prior to 2010, CalSTRS passive strategies excluded all tobacco companies, when they were removed from CalSTRS benchmarks "Benchmark Modification" (Equity as of September 2000 and Debt as of July 2002). During this time there was not a policy requiring restriction for active managers.

The Portfolio Restrictions Policy outlines six current restrictions that are tracked in this analysis based on their implementation dates: tobacco companies (January 2010), firearms companies (May 2013), thermal coal companies (U.S. and Non-U.S. as of July 2017), U.S private prison companies (January 2019) and geopolitical risk (as of January 2010).

Geopolitical Risk corresponds to the exclusion of Iran and other U.S. sanctioned countries. Included in the exclusion cost calculation is the exclusion of Sudan from October 2008 until restrictions were lifted in February 2021. Additionally, in 2018, MSCI added Saudi Arabia to their benchmarks, but CalSTRS chose not to include Saudi Arabia in the custom benchmarks - therefore the cost of excluding Saudi Arabia is captured in the Total Exclusion Impact, but is not tracked separately.

The cost of portfolio restriction is reported at The CalSTRS' Board's request, as a policy requirement.

Methodology:

This cost analysis is a best-effort historical estimate, based on available information. The gain or loss (potential cost) associated with restriction is captured at the Total Plan level, major asset class (Global Equity and Debt), and by program.

To calculate a gain/loss at the Total Plan and asset class level, a return difference is calculated by comparing the monthly return of each asset class levels fully inclusive benchmark versus the CalSTRS' custom version which excludes restricted assets. This return difference is applied to the level's beginning balance to understand that month's gain or loss. The cumulative gain or loss is then compounded each month at the Total Fund's return, net of manager fees.

The program levels use custom indices which exclude only the restricted assets for each program individually. The difference from the standard index is used to estimate each program's ownership percentage of the gain or loss calculated at the Total Plan level.

The Total Fund return serves as the discount rate: the rate of return we would expect had the gain been available to invest, or the return we would have lost had the loss reduced the Total Fund's value. Using a discount / re-investment rate is required to estimate the true value gained or lost over the period and is consistent with industry standard cash flow modeling.

The total restriction impact is captured in terms of two components:

- 1) The Legacy Benchmark Modification Program (the removal of tobacco companies from the CalSTRS' benchmarks -passive strategy divestment), which ran from March 2000 to December 2009, compounded through the present period.*
- 2) The Portfolio Restriction Policy which combines the Divestment Policy Program (captured as of January 2010), with the Portfolio Restrictions Policy Program (captured as of November 2023), compounded through the present period.*