Federal Retirement Thrift Investment Board

State Street Global Advisors

February 28, 2023

STATE STREET GLOBAL ADVISORS

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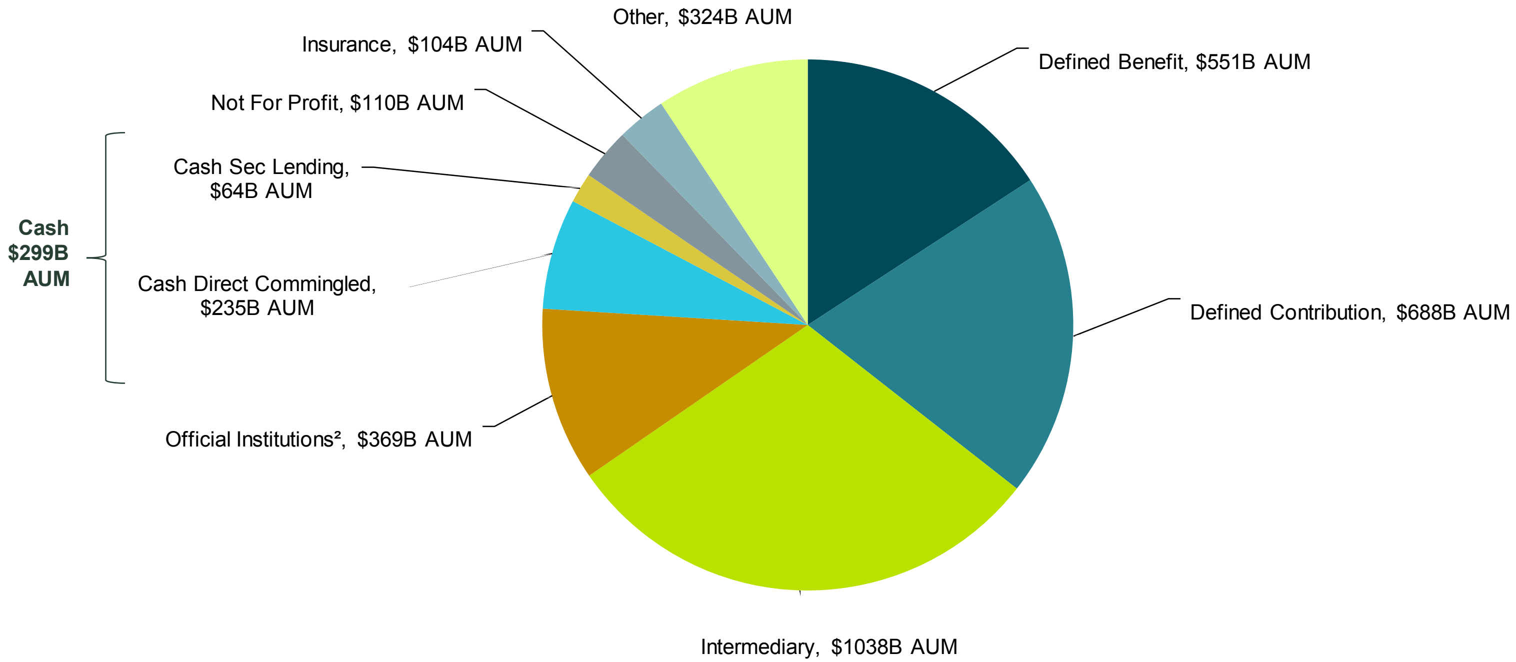
State Street Speakers

US $3.48 Trillion in Assets Under Management[1]

Clients by AUM



[1]This figure is presented as December 31, 2022 and includes approximately $58.6 billions of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.
[2]Official Institutions is a client type that includes all plan type assets including DB and DC.

2023
Global Market Outlook

Navigating a Bumpy Landing

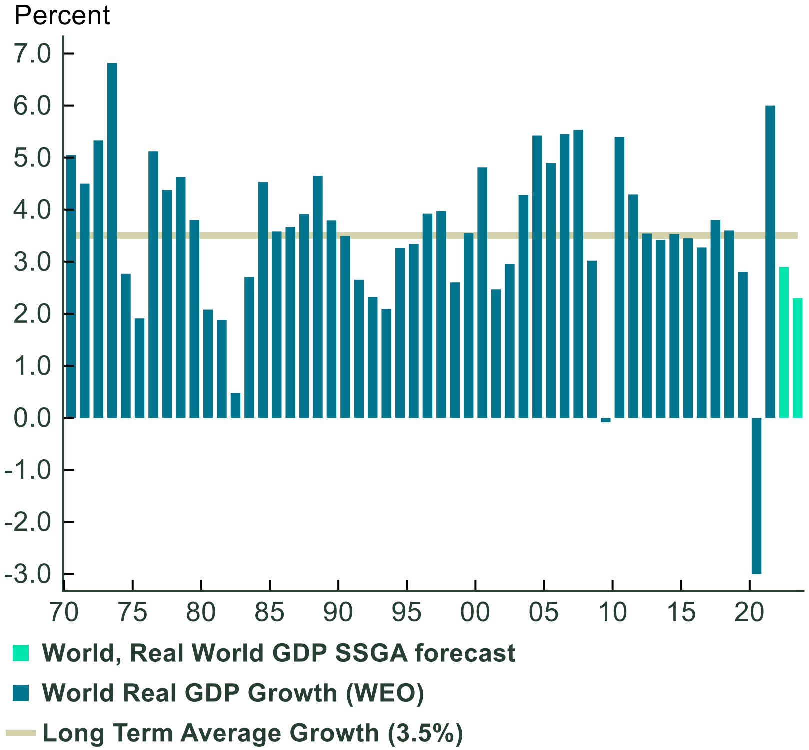
Macroeconomic Outlook

- **In 2023** we expect **US and Europe to be in a "Growth Recession"** with further downside risks. We expect sub-trend growth **into 2024.**
- **Disinflationary episode is now unfolding:** Base effects matter and are powerful, and a mad dash to rebuild inventories is now over.
- Fed's **inflation obsession will gradually shift to growth worries** around H2 2023, leading to **rate cuts by Q4 2023**.
- This will lead to **USD decline as long as global growth dynamics do not deteriorate much further.**

Ex-Crises, Lowest Growth Since 2001

Global slowdown intensifies across both developed and developing economies.

Global Slowdown Intensifies



Sources: SSGA Economics, IMF WEO
Updated as of 1/9/2023

Real GDP Growth (State Street Global Advisors Forecasts)	2022 (%)	2023 (%)
World	2.9	2.3
Advanced Economies	2.3	0.6
United States	1.8	0.4
Eurozone	3.3	0.3
Germany	1.8	-0.1
Japan	1.2	1.5
United Kingdom	4.4	-0.7
Australia	3.7	2.1
Emerging Economies	3.4	3.5
China	3.5	5.0

Source: State Street Global Advisors; Forecasts as of January 09, 2023.

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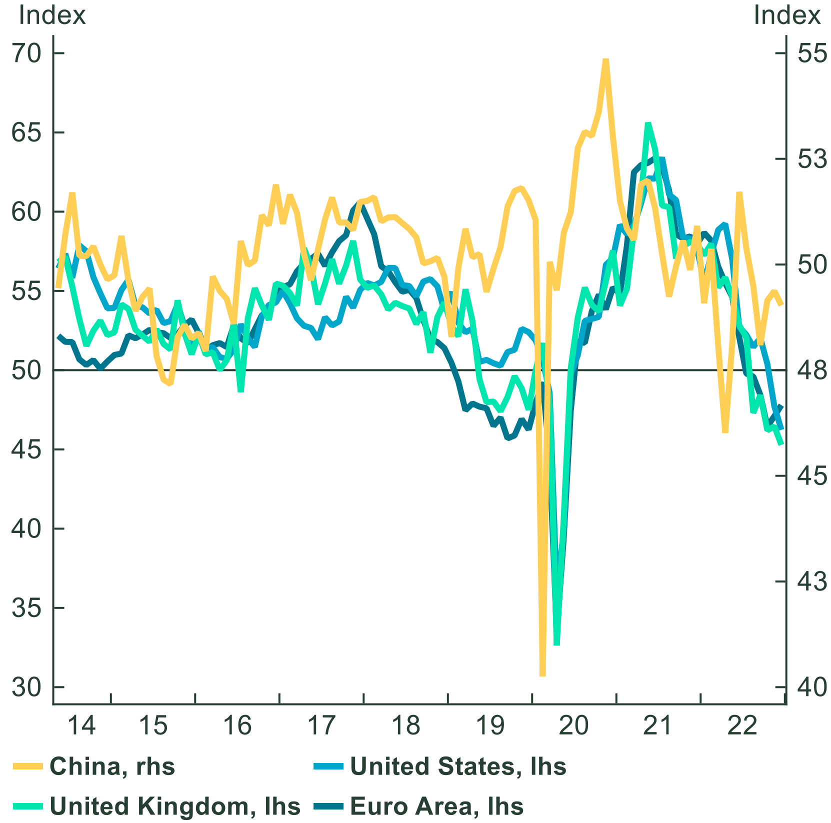
Danger Zone for Global Manufacturing

Global manufacturing is feeling the pinch.

Industrial Production

Sources: State Street Global Advisors, CPB
Updated as of 1/4/2023

Manufacturing PMIs



Sources: State Street Global Advisors, ISM, SPDJI
Updated as of 1/9/2023

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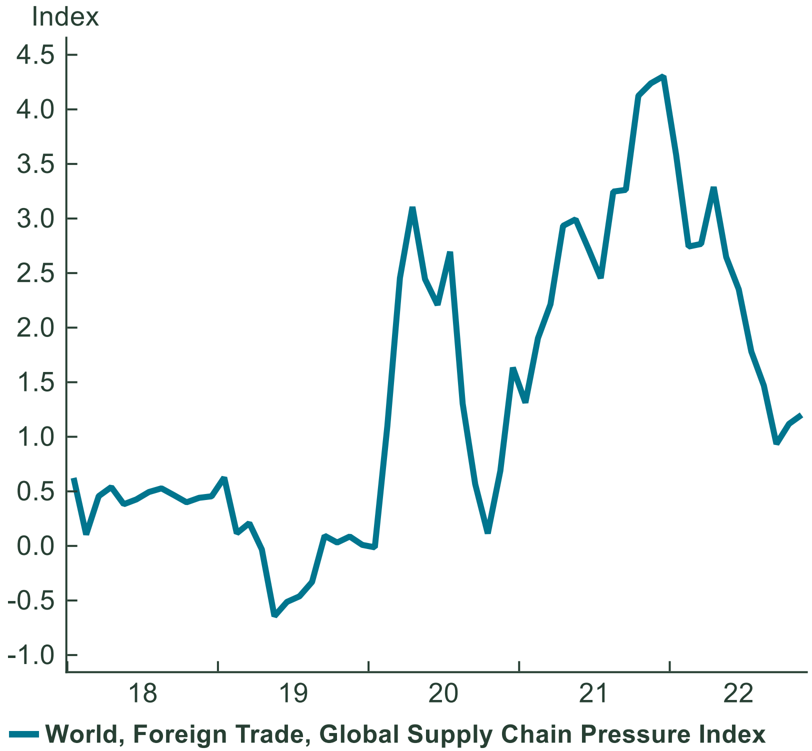
Disinflationary Episode Ahead

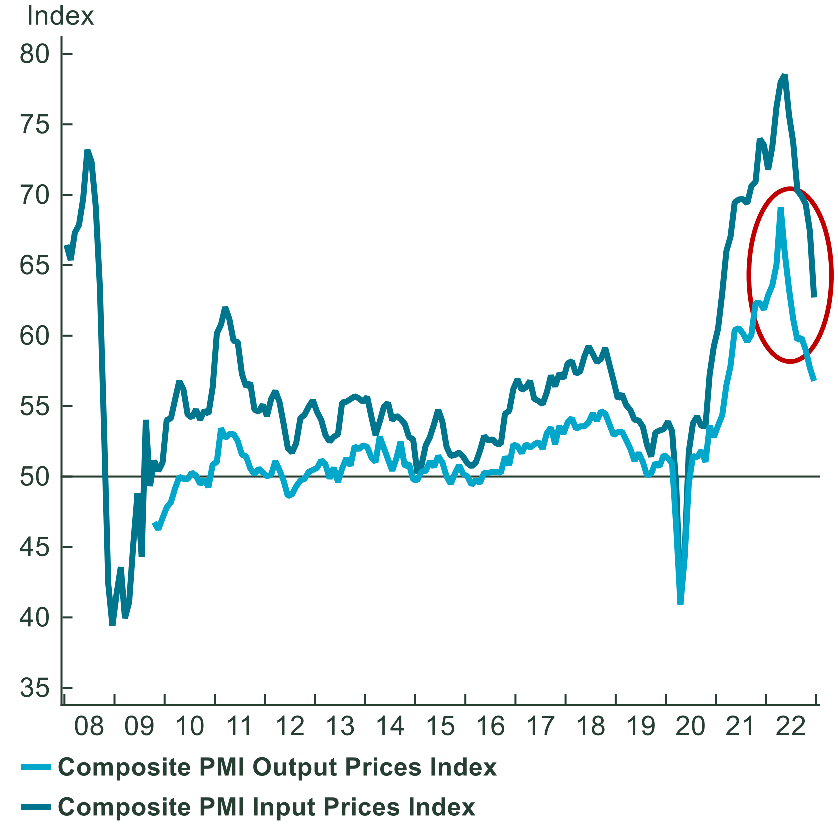
Supply side pressures are easing across the board.

Global Supply Chain Pressure Index



Sources: State Street Global Advisors, Federal Reserve Bank of New York
Updated as of 1/4/2023

Developed Markets

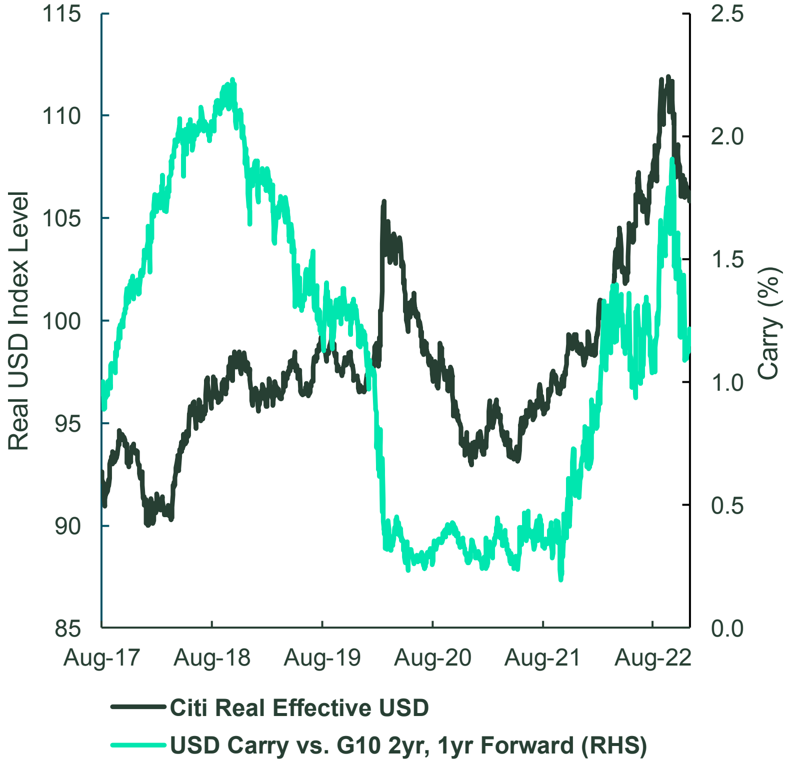


Sources: State Street Global Advisors, SPDJI
Updated as of 1/9/2023

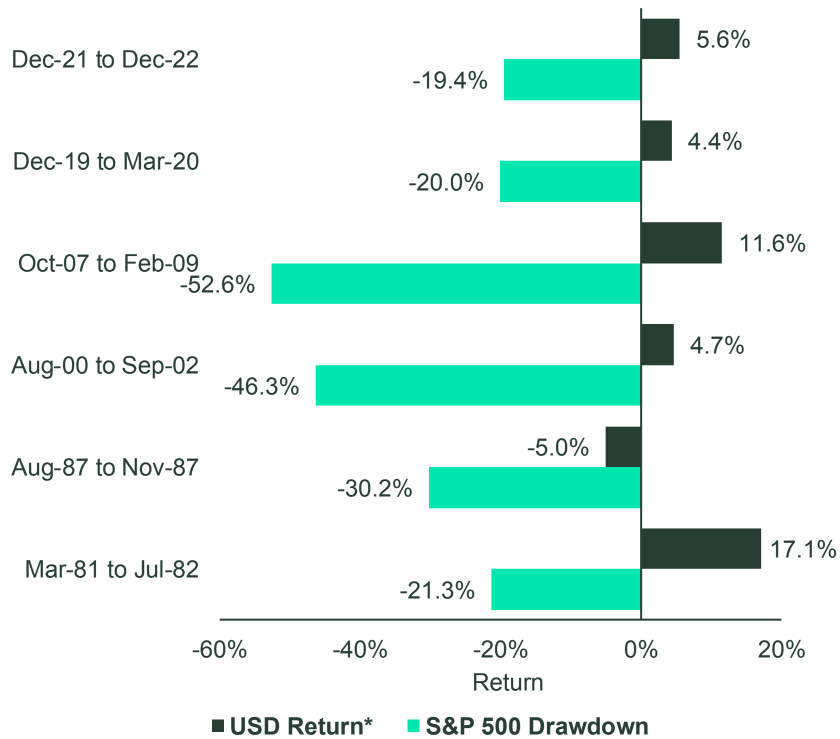
USD Strength Likely Cyclical, Not Permanent

Rising inflation and yields plus weakness in risky assets underpin USD strength, which should continue until inflation/yields roll over and risky assets (+growth ex-US) bottom.

USD is expensive relative to carry…



Due to safe haven demand



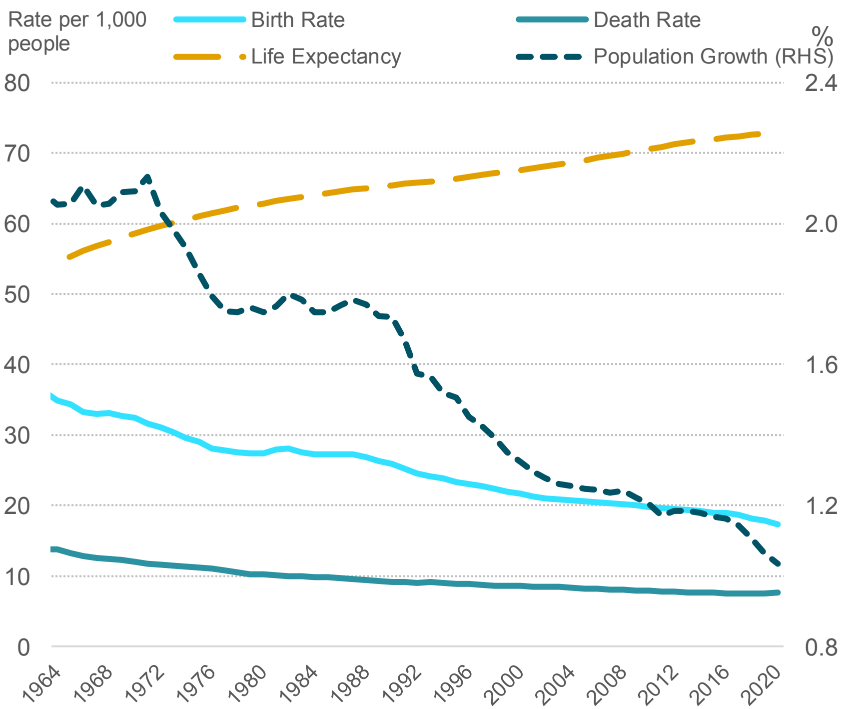
Source: State Street Global Advisors; Bloomberg as of 30th December 2022
*Return of the US Federal Reserve Broad Real Trade Weighted US Dollar Exchange Rate.

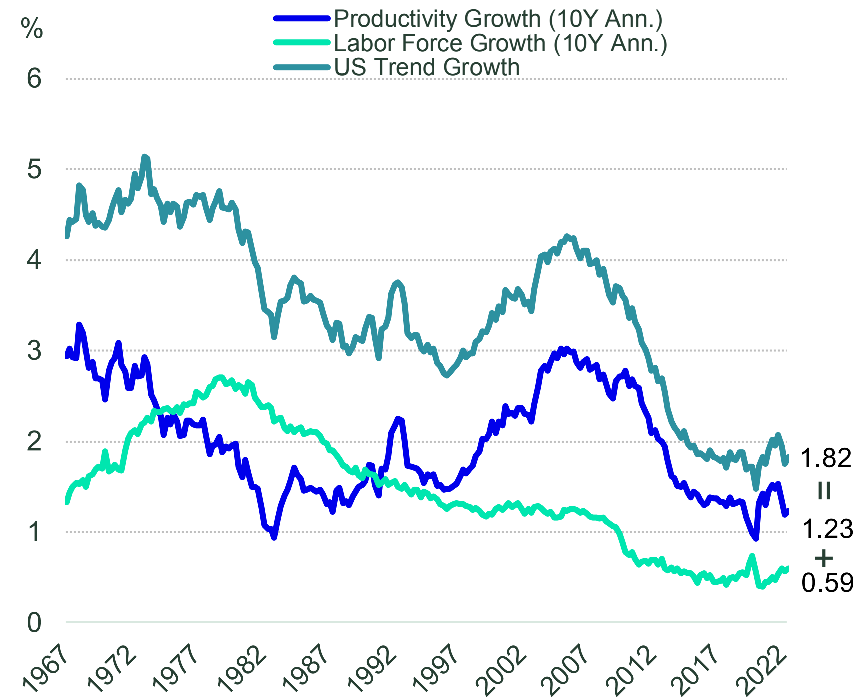
Fixed Income Outlook

- **Secular slowdown from demographic forces** will, in time, pressure yields downward, despite the short-term spike as Central Banks fight inflation.
- **Value** in rates which have risen dramatically; **Yields at or near highest levels** over past decade. We **favor Duration versus Spread** at this point in the cycle.
- **We prefer Investment Grade**—given that fundamentals are slowing but still holding up, and Defined Benefit pension demand remains—versus **High Yield** given that downgrades are creeping higher while the distress ratio is climbing.

Low rates and growth are anchored by demographics and flagging productivity

Secular slowdown is well entrenched with trend growth estimated to be < 2%

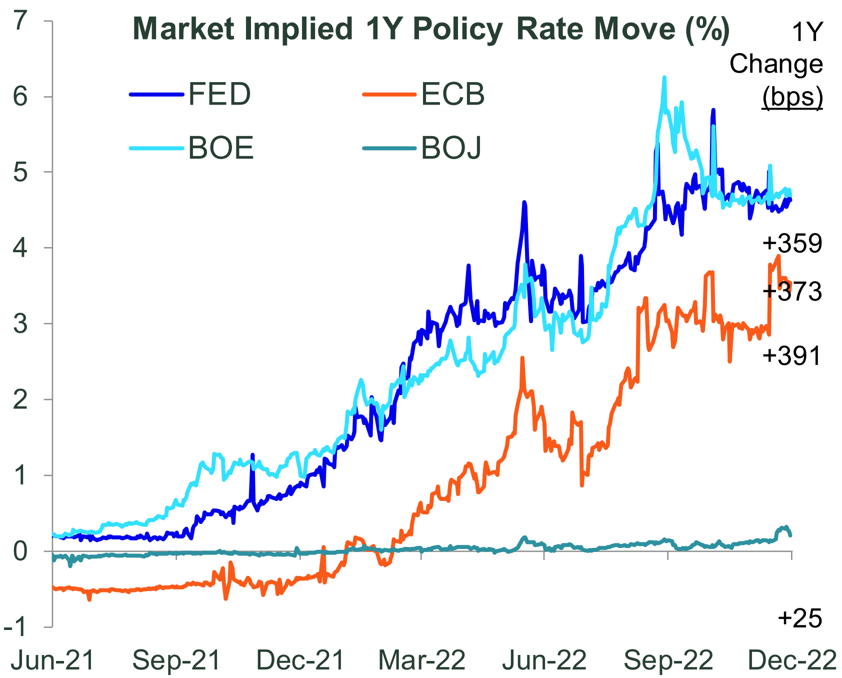




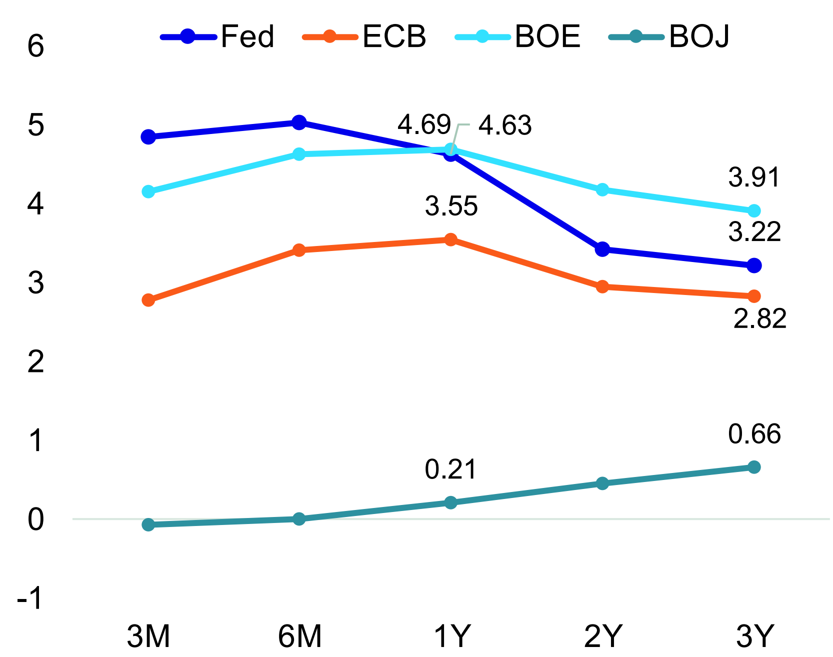
Left chart sources: World Bank. Data are annual from 1964 to 2020.
Right chart sources: State Street Global Advisors, Bloomberg Finance, L.P. Data are quarterly from March 1948 to September 2022.

Fed is nearing peak policy rates, Europe has more work to do

Aggressive tightening phase is coming to an end…



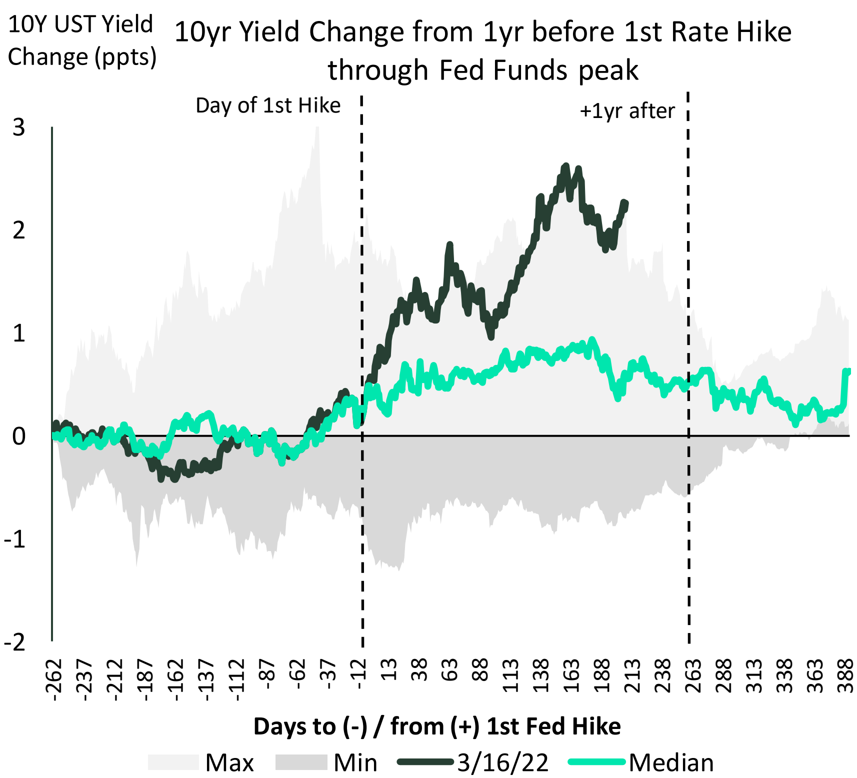
US Fed likely to peak ahead of Europe and Japan



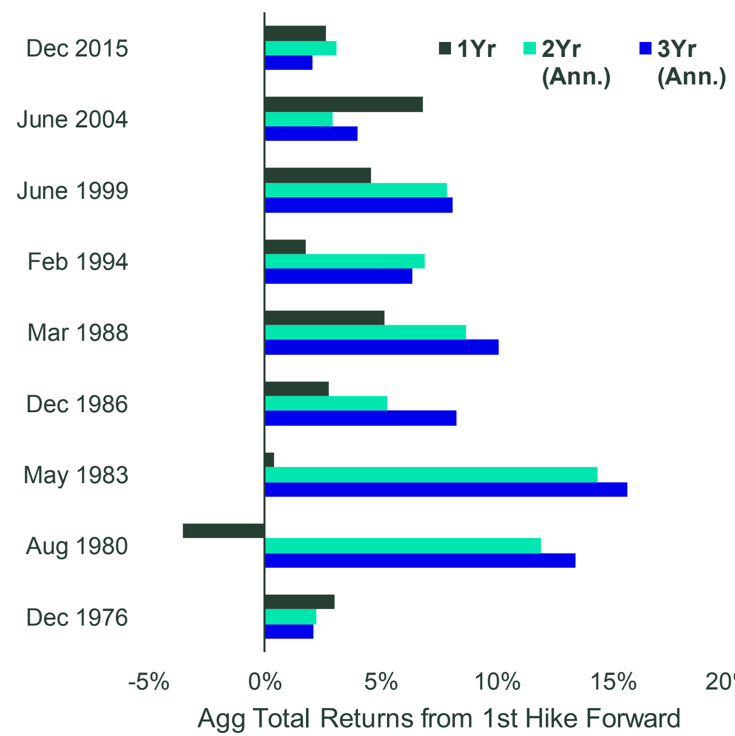
Source: Bloomberg Finance, L.P.,, as of December 30, 2022.

Potential Buying Opportunity for Strategic Investors

Value in rates which have risen dramatically along with tightening expectations



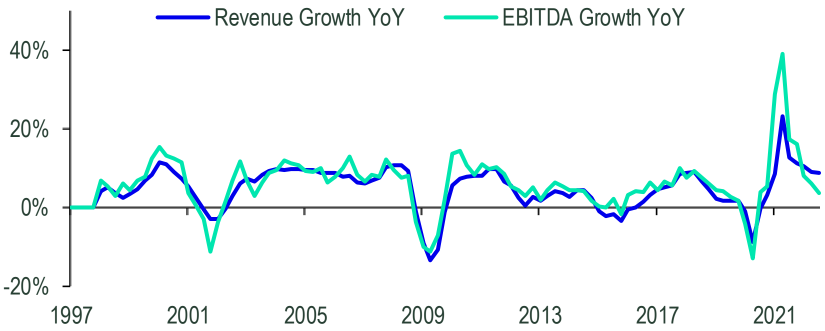
Historically, fixed income has performed well from the start of Fed tightening cycles



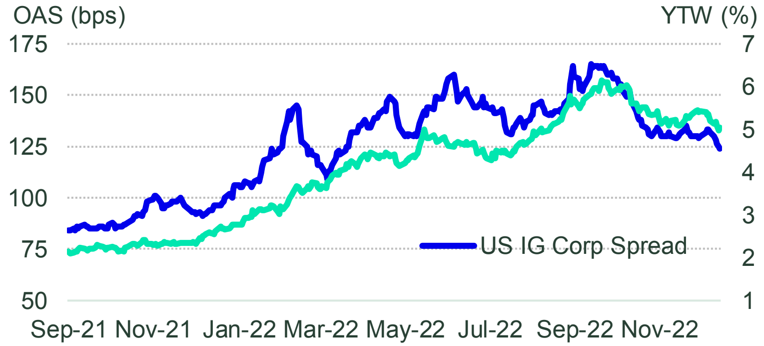
Sources: Bloomberg Finance, L.P., Federal Reserve, and State Street Global Advisors analysis, as of December 30, 2022.

Credit fundamentals are supportive of IG Corp spreads

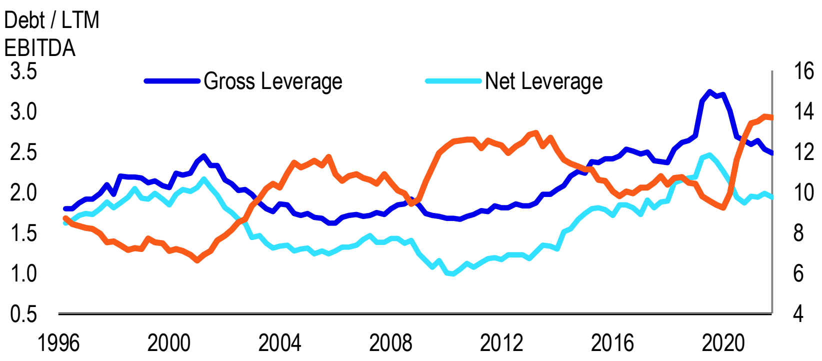
Top- & bottom-line growth, though slowing, continues to hold up…



Rising Treasury yields have driven borrowing costs higher



…while corporate balance sheets have significant cushions.



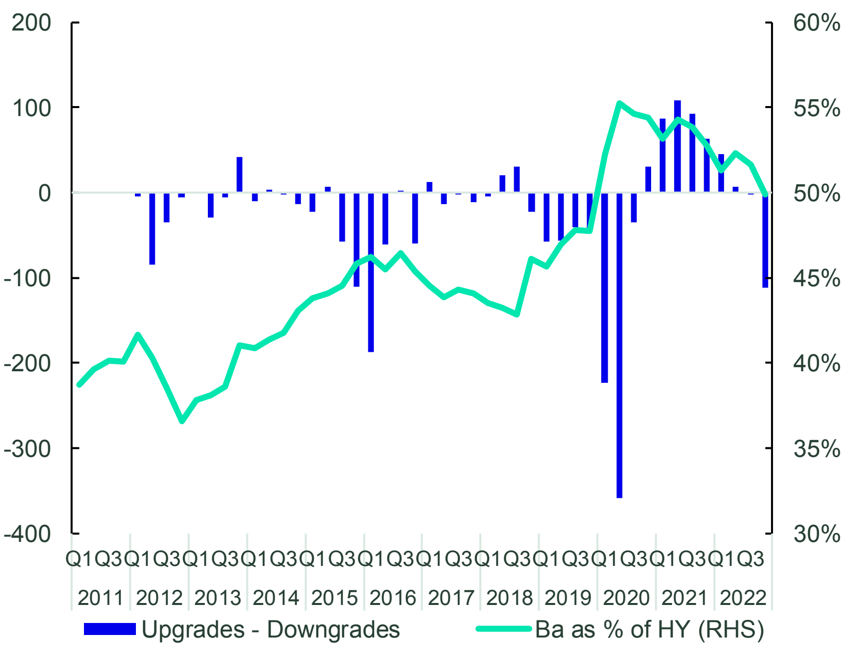
Milliman 100 Pension Funding Ratio

Left charts: Source: Bank of America as of September 30, 2022. Data represent median values for US investment grade non-financial corporate issuers excluding Utilities.
Right charts: Source: Bloomberg Finance, L.P., as of December 30, 2022.

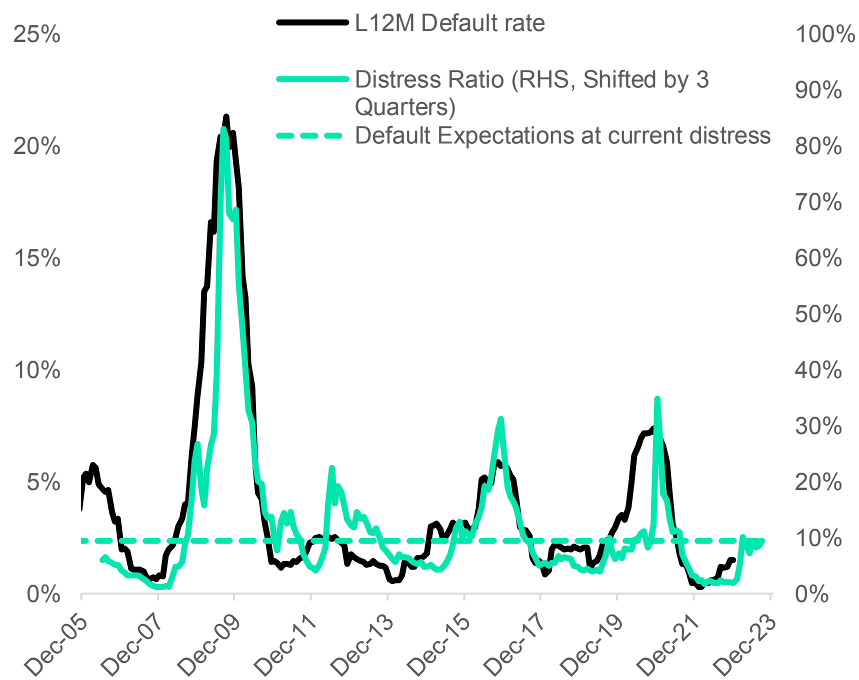
High Yield credit quality is showing signs of softening, but no alarm bells

High yield downgrades are rising while upgrades are slowing down…

Moody's HY downgrades (# notches) are creeping higher



Default rates are near historic lows, with modest levels of distress



Left chart source: Bloomberg Finance, L.P., as of December 31, 2022.
Right chart sources: Bloomberg Finance, L.P., Bank of America Merrill Lynch, as of December 31, 2022. BofA ML HUC0 and HEC0 indices used.

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High Yield as Private Credit's Liquidity Tool

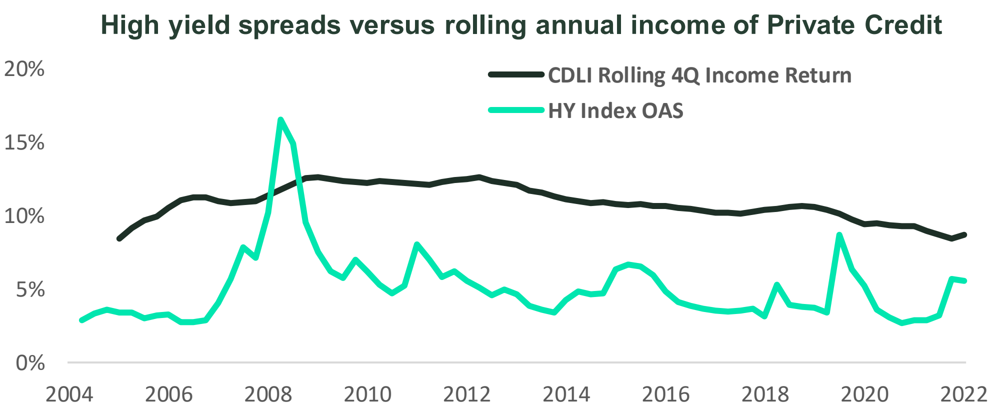
Relative to other asset classes, Indexed High Yield represents a suitable, liquid proxy to invest in while waiting for Private Credit investment to be called.

	Mark-to-Market/ Liquidity	Correlation with CDLI	Historical Yield**
Private Credit*	Periodic		8-12%
High Yield Index	Daily	0.82	5-9%
U.S. Aggregate Bond Index	Daily	-0.15	2.5-5%
S&P 500 Index	Daily	0.66	1-3%
Cash	Daily	-0.02	0-1%

*Private Credit is represented by the Cliffwater Direct Lending Index (CDLI), a common benchmark in the private credit market.
**Expected Yield represents a historical range representative of the trailing 10 year period.

- Higher Correlation with Private Credit
- Attractive Historical Yields
- Private Credit capital calls can take weeks, months, or years

Allocating to Indexed High Yield allows investors to capitalize on market dislocations while waiting for capital calls



- Take advantage of the liquidity and volatility of High Yield
- Seed Private Credit funding with High Yield opportunistically
- Sell High Yield into strength to meet capital calls in Private Credit

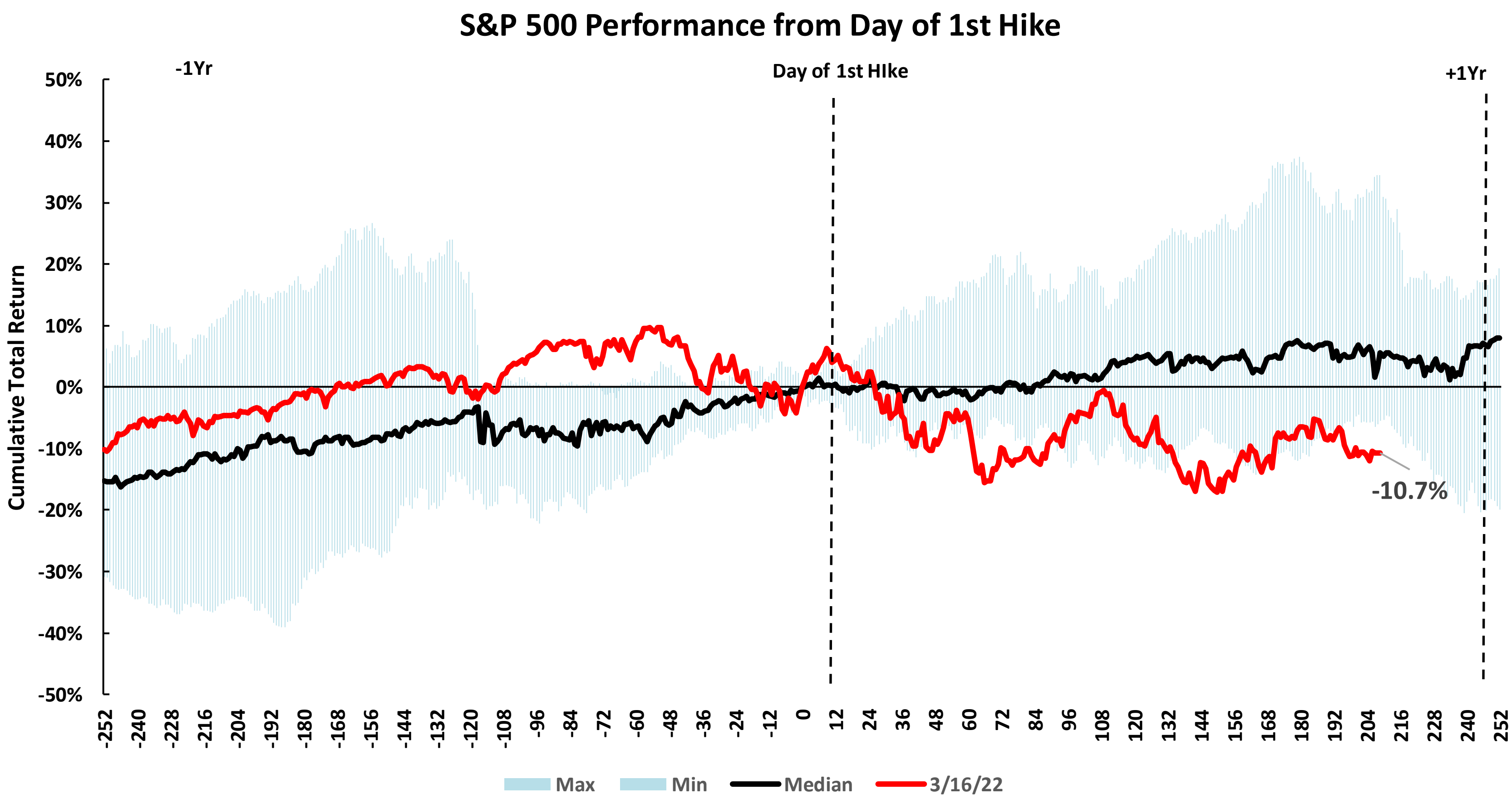
Sources: Cliffwater Direct Lending LLC, Bloomberg Finance L.P. Data are based on quarterly returns September 30, 2022. It is not possible to invest directly in the CDLI. Past performance is not a reliable indicator of future performance. Index returns reflect all items of income, gain, and loss and the reinvestment of dividends and other income as applicable.

Equity Outlook

- **Limited Equities downside** (ex-inflation spike +/ earnings recession) but valuation risk is higher now mutliples have rebounded, and earnings revisions keep trending lower.
- **Quality cheap** relative to history, and **Value will resume its bounce**.
- Currently we are **tactically underweight Equities** - looking for the yield curve to flatten to add more to risk, **adding more outside US** than US.
- This regional view is predicated on: 1) a **turn in the USD**, and 2) **Value factor starting to outperform** as inflation and real yields stabilize.
- **Emerging Markets** are facing the twin **headwinds** of a **strong USD** and **weak China**.

How Much More Downside for Equities?

The fall in US Equities since the onset of the rate hike cycle in March 2022 has been historically steep.

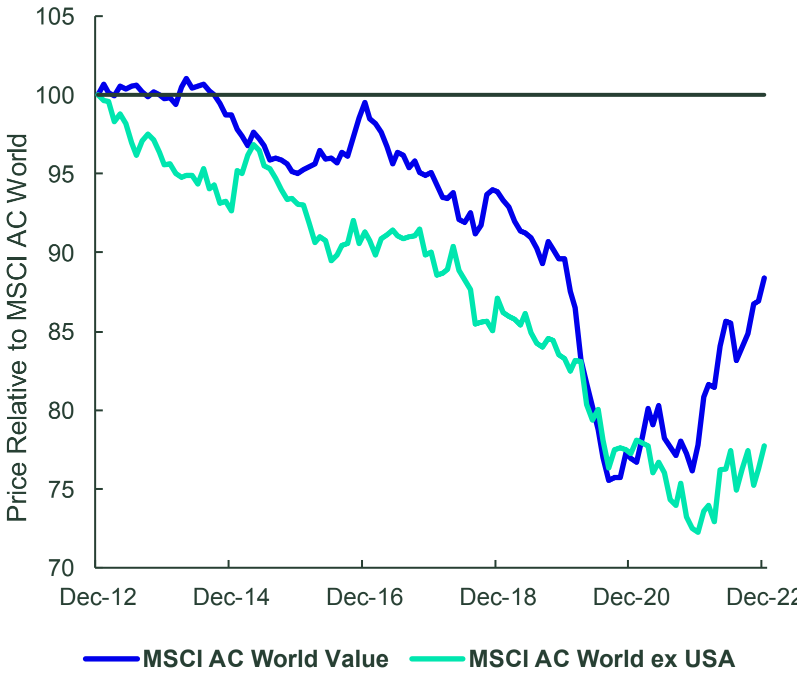


Source: State Street Global Advisors, Bloomberg, as of Dec 31, 2022. Chart references MSCI World TR Index in USD. Min, max, and median calculation reflect performance through Dec 1976, Aug 1980, May 1983, Dec 1986, Mar 1988, Feb 1994, Jun 1999, Jun 2004, and Dec 2015 Fed rate hike cycles.

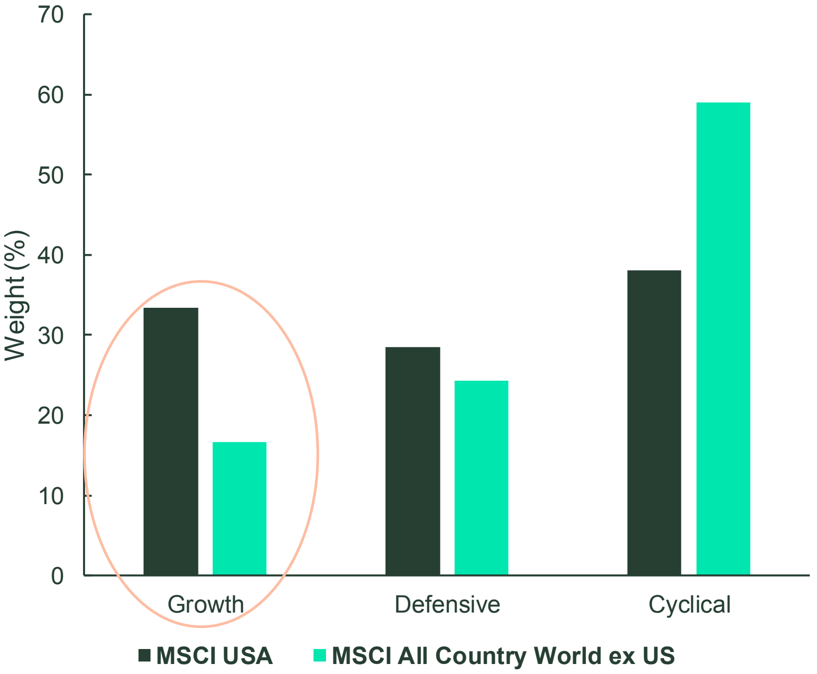
Increased Value Exposure Outside the US

Value outperformance could be a tailwind for non-US equities.

Relative to ACWI, both Value and Ex-US have similar returns



Sector Weight Profile – US vs Ex-US



Sources: MSCI, FactSet. Data as of 12/30/2022. LHS: Relative Price is indexed to 100 at 12/31/2012. RHS: Growth sectors = Information Technology, Communications Services. Cyclical Sectors = Consumer Discretionary, Industrials, Materials, Energy, Financials. Defensive Sectors = Consumer Staples, Utilities, Health Care, REITS. Past performance is not a reliable indicator of future performance. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

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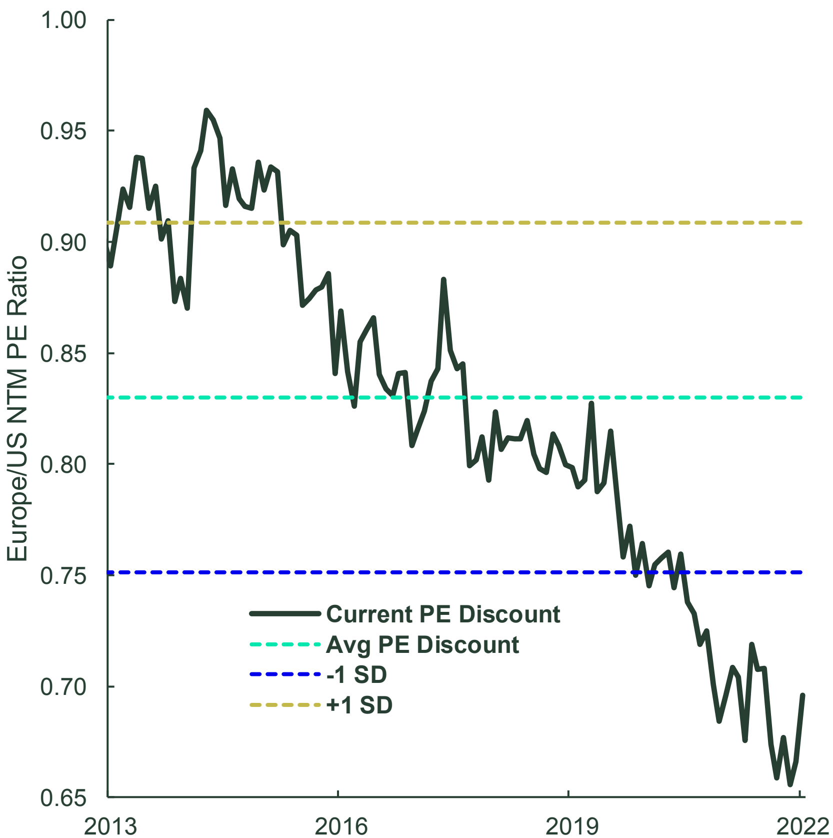
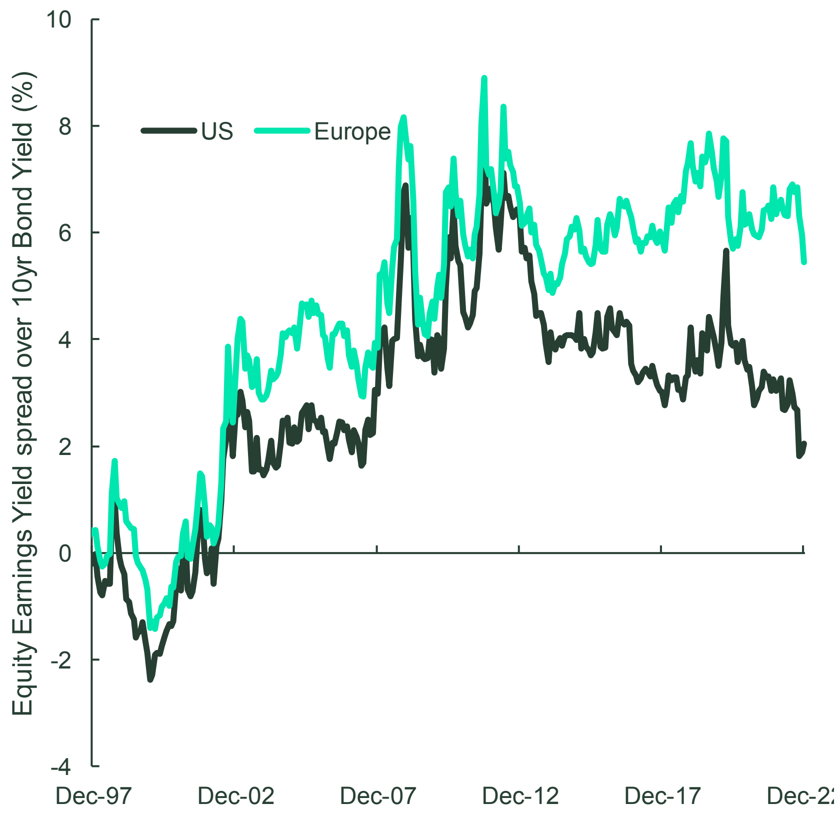
Europe for the Long-Term

Europe presents opportunities for the long-term investor; we are unlikely to see a pick-up unless risk aversion decidedly abates.

European stocks trading at deep discount



Earnings Yield now looking attractive



Source: State Street Global Advisors, MSCI, FactSet, as of December 30, 2022. PE = price to earnings ratio; NTM = next twelve months; EPS = earnings per share.

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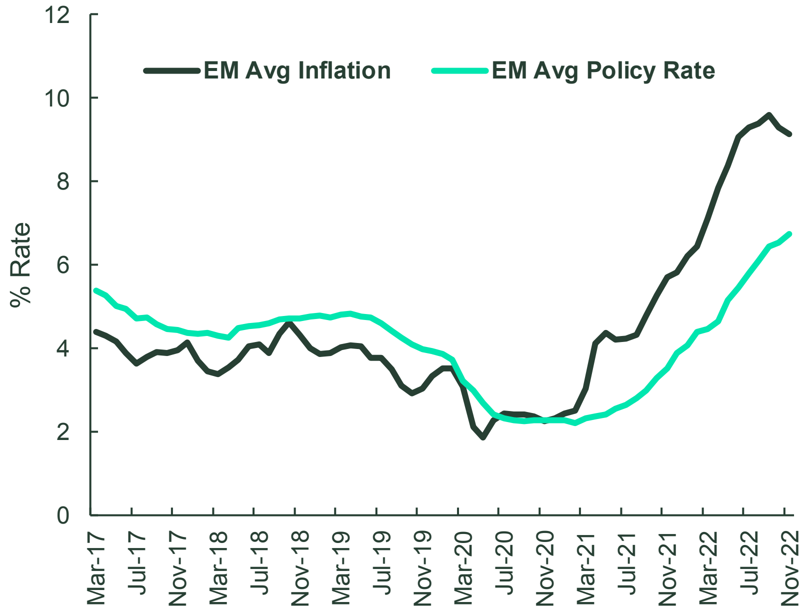
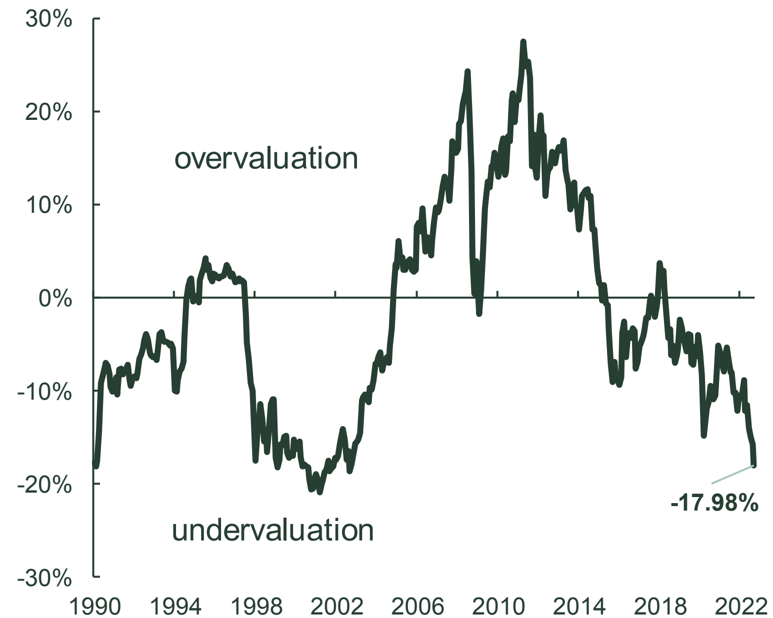
Challenging Time Ahead for EM Equities

EM stocks offer attractive valuations relative to US stocks. And EM Central Banks have been quicker than their DM counterparts to address inflation… However, FX rates continue to fall, indicating a lack of confidence from market participants.

EM Central Banks hiking rates to combat inflation



EM FX Fair Value vs USD



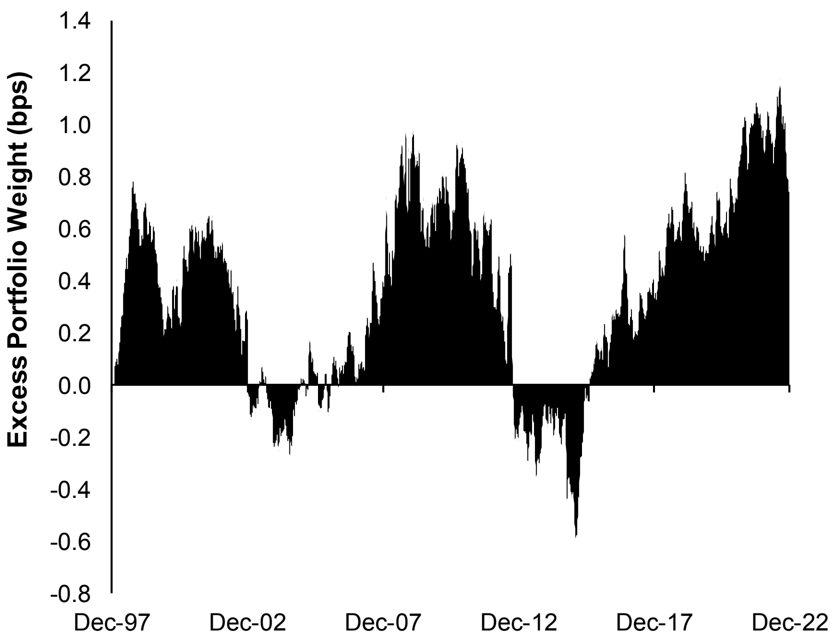
Source: LHS: State Street Global Advisors, MSCI, FactSet, as of Nov 30, 2022. RHS: State Street Global Advisors, Bloomberg, as of Sep 30, 2022.

Extreme US Overweights, Ripe for a Reversal

Institutional owners have highest overweight to the US in at least 25 years. EM is the complete opposite story.

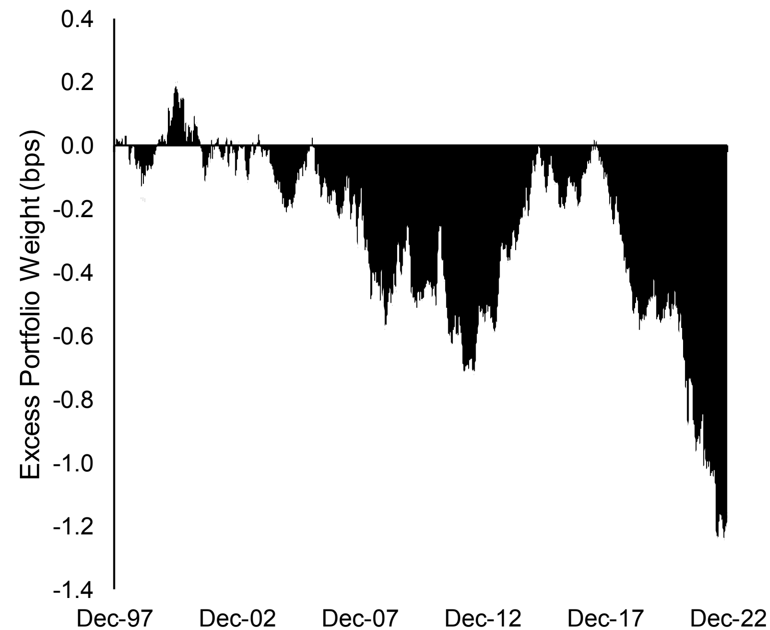
United States Equity Holdings Indicator

Excess Portfolio Weights



Emerging Equity Holdings Indicator

Excess Portfolio Weights



Source: State Street Global Markets. Data as of 12/31/2022.

Key Takeaways

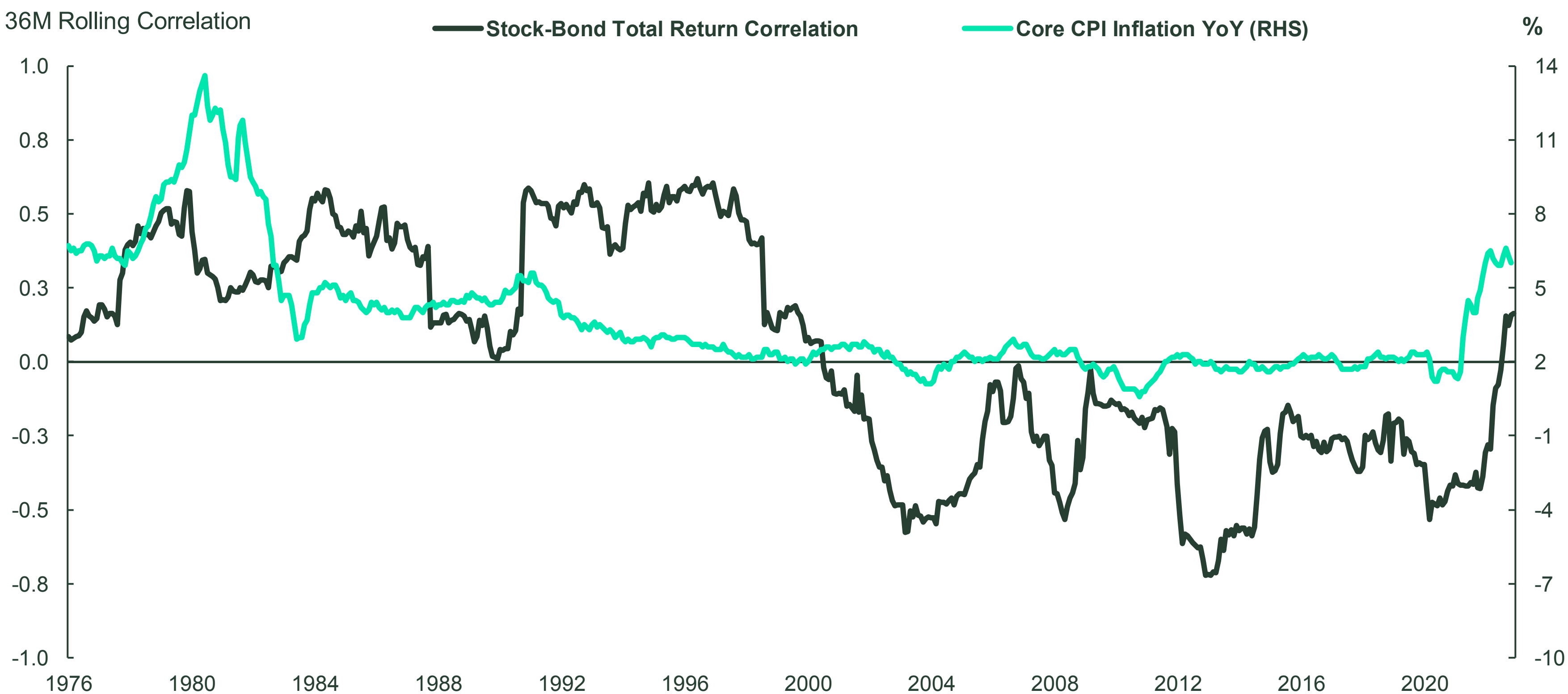
- Uncertainty creates opportunities. We **are growing cautiously more optimistic on risk assets** as 2023's inflection point appears to be coming closer.
- We expect **US and Europe to be in a "Growth Recession"** with further downside risks. We expect sub-trend growth **into 2024** and a **disinflationary episode ahead**.
- Fed's **inflation obsession will gradually shift to growth worries** around H2 2023, leading to **rate cuts by Q4 2023**, leading to **USD decline if global growth holds up.**
- **Our Playbook**: As the yield curve goes from inversion to flattening to steepening, this should signal investors to go pro-risk. Risk assets may start to price this move ahead of time.
- **Fixed Income**: We **prefer Duration over Spread** and **Investment Grade over High Yield**.
- **Equities**: We see limited downside but worry about valuation compression and earnings revisions - **Quality** is **cheap** relative to history, **Value should keep outperforming as real yields rise**. EMs face the twin headwinds of a strong USD and a weak China.

Additional Information

From Great Moderation to Great Volatility

In disinflationary episodes pre-2000, the Equity-Bond Correlation stayed high even after inflation had started to fall decisively.

The market needs to be convinced that supply-side pressures have abated in order to ease inflation uncertainty and allow bonds to resume their diversifying role vs. equities.

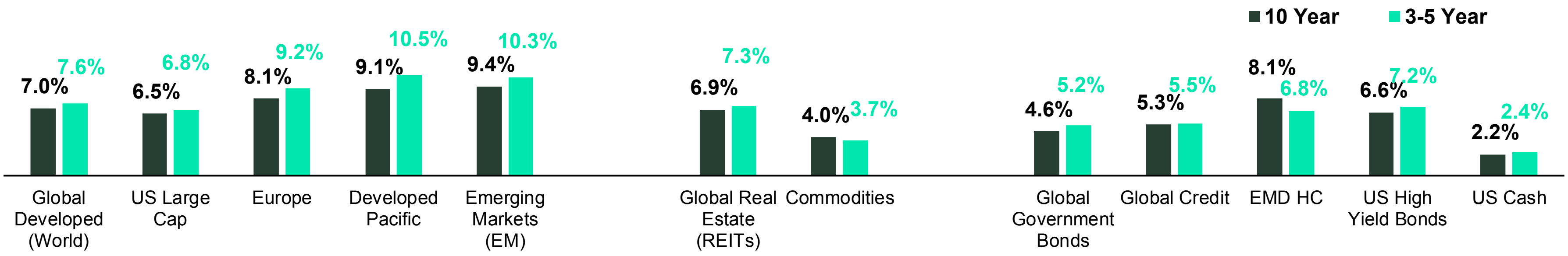


Source: Bloomberg Finance, L.P., as of December 31, 2022. Analysis uses monthly total returns on the S&P 500 Index and the Bloomberg US Treasury Index from February 1973 – December 31, 2022.

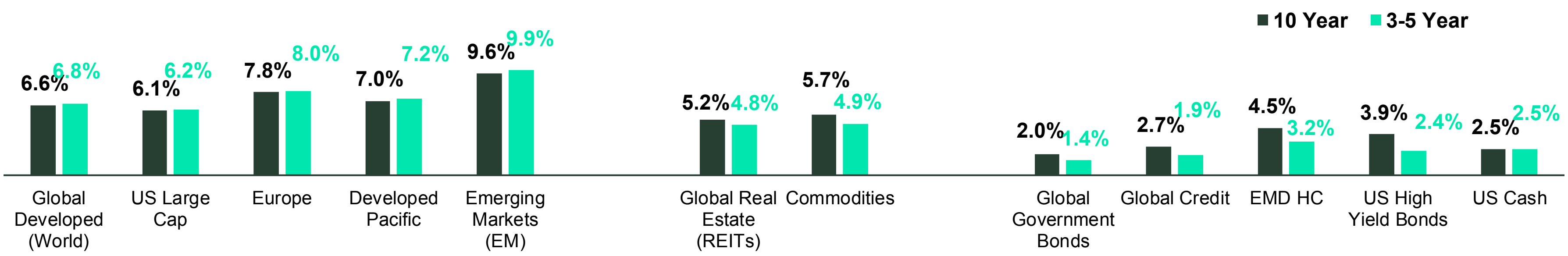
Asset Class Forecasts – A Silver Lining

Expected returns show a material uptick, especially in Fixed Income.

Forecasted Return (%) as of September 2022 – Unhedged USD



Forecasted Return (%) as of December 2019 – Unhedged USD



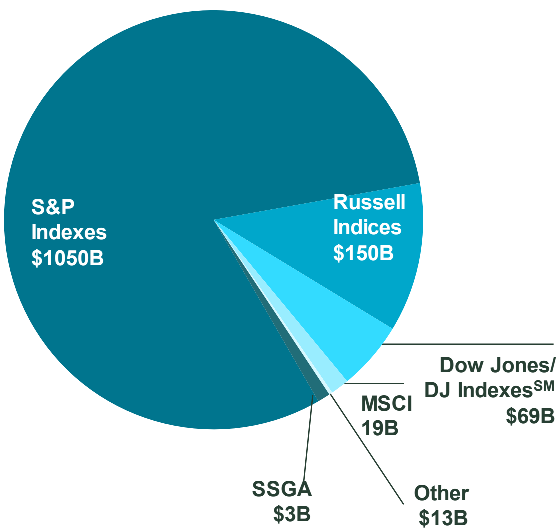
Source: State Street Global Advisors Investment Solutions Group. The forecasted returns are based on State Street Global Advisors' Investment Solutions Group's September 2022 forecasted returns and long-term standard deviations. The forecasted performance data is reported on a gross of fees basis. Additional fees, such as the advisory fee, would reduce the return. For example, if an annualized gross return of 10% was achieved over a 5-year period and a management fee of 1% per year was charged and deducted annually, then the resulting return would be reduced from 61% to 54%. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in the local (or regional) currency presented. It does not take into consideration currency effects. The forecasted performance is not necessarily indicative of future performance, which could differ substantially. Please reference Appendix A for the assumptions used by State Street Global Advisors Investment Solutions Group to create asset class forecasts.

Investment Performance Summary

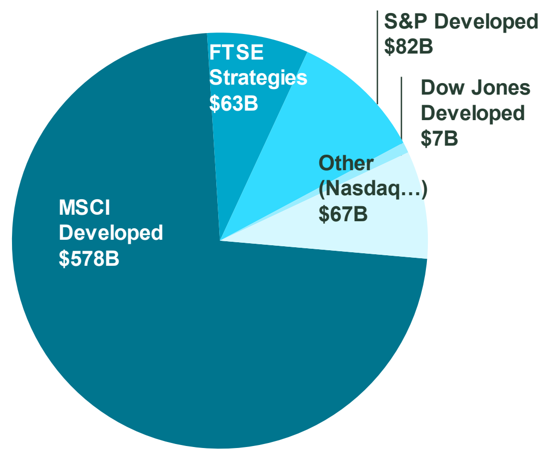
A Leading Manager of Global Indexed Assets

Total Global Equity Beta Solutions Assets Under Management: $2.17 Trillion (USD) as of December 31, 2022

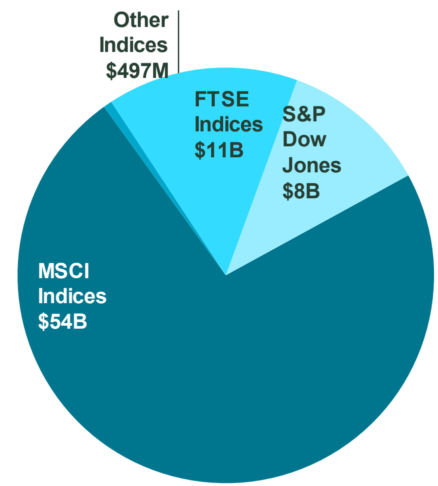
US Index AUM
$1,304B



International & Global Equity AUM $796B



Emerging Markets Equity AUM $74B



Source: State Street Global Advisors. As of December 31, 2022.
Exclusive of Emerging Markets Equities invested in other MSCI-benchmarked strategies such as MSCI ACWI and MSCI ACWI ex-US.

Process Discipline Delivers Results

Our stratified sampling approach seeks to deliver reliable outcomes by controlling risks, minimizing costs and adding incremental returns

Control Risks

Identify and match key risk dimensions

Monitor and control risk within set tolerances

Minimize Costs

Selective turnover

Innovative trading techniques

Efficient execution

Add Incremental Return

Proactive management of index changes/events

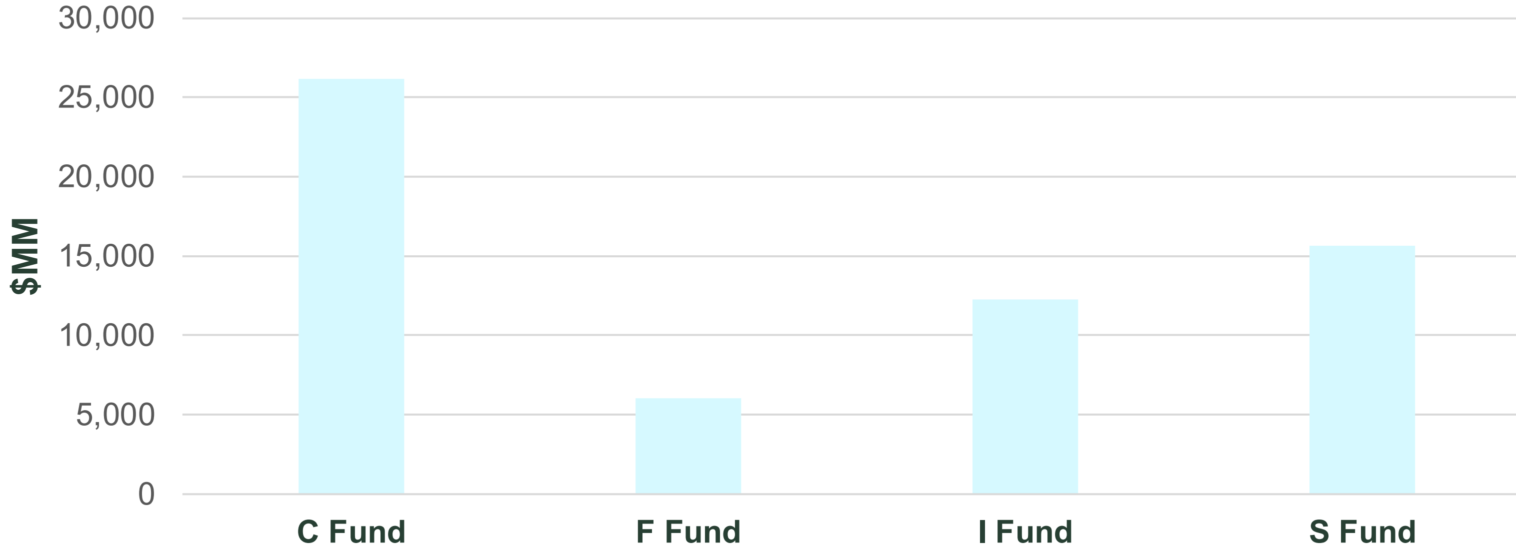
Pragmatic security selection

Harvest new issue/primary market premium

Source: SSGA. The above objectives are based on certain assumptions and analysis made by SSGA. There is no guarantee that the objectives will be achieved.

TSP Account Summary

Participants' AUM($) as of December 31, 2022



	Benchmark	AUM 12/31/2022 ($)
TSP C Fund – Common Stock Index Investment Fund Account	S&P 500®	26,186,992,032
TSP F Fund – Fixed Income Index Investment Fund Account	Barclays Capital US Aggregate Index	6,023,187,958
TSP I Fund – International Stock Index Investment Fund Account	MSCI EAFE® Index	12,235,514,769
TSP S Fund – Small Capitalization Stock Index Investment Fund	Dow Jones U.S. Completion Total Stock Market Index	15,654,682,496
Total		**60,100,377,255**

Source: SSGA

TSP Investment Return Summary

Summary of Performance

Following are the gross returns for Thrift Savings Plan portfolios versus the corresponding benchmarks as of December 31, 2022:

	One Month (%)	Three Months (%)	Year-to-Date (%)	One Year (%)	Three Years (%)	Five Years (%)	YTD Since Inception (%)
TSP C Fund – Common Stock Index Investment Fund Account							**Apr/2021**
Total Returns (Gross)	-5.76	7.56	-18.11	-18.11	N/A	N/A	-3.46
S&P 500®	-5.76	7.56	-18.11	-18.11	N/A	N/A	-3.46
Difference	**0.00**	**0.00**	**0.00**	**0.00**	**N/A**	**N/A**	**0.00**
TSP F Fund – Fixed Income Index Investment Fund Account							**Jun/2021**
Total Returns (Gross)	-0.66	1.72	-13.09	-13.09	N/A	N/A	-8.69
Barclays Capital US Aggregate Index	-0.45	1.87	-13.01	-13.01	N/A	N/A	-8.64
Difference	**-0.21**	**-0.15**	**-0.08**	**-0.08**	**N/A**	**N/A**	**-0.05**
TSP I Fund – International Stock Index Investment Fund Account							**Dec/2022**
Total Returns (Gross)	N/A	N/A	N/A	N/A	N/A	N/A	-1.30
MSCI EAFE® Index	N/A	N/A	N/A	N/A	N/A	N/A	-1.72
Difference	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**0.42**
TSP S Fund – Small Capitalization Stock Index Investment Fund Account							**May/2021**
Total Returns (Gross)	-6.54	5.12	-26.25	-26.25	N/A	N/A	-15.17
Dow Jones U.S. Completion Total Stock Market Index	-6.53	5.07	-26.54	-26.54	N/A	N/A	-15.41
Difference	**-0.01**	**0.05**	**0.29**	**0.29**	**N/A**	**N/A**	**0.24**

Source: SSGA

Past performance is not a reliable indicator of future performance. Performance returns for periods of less than one year are not annualized. The performance figures contained herein are provided on a gross of fees basis. Gross of fees do not reflect the deduction of advisory or other fees which could reduce the return. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in USD. Index returns reflect capital gains and losses, income, and the reinvestment of dividends.

TSP Attribution

As of December 31, 2022

	F Fund	I Fund*	S Fund
YTD Fund Return (%)	-8.69	-1.30	-26.25
YTD Benchmark Return (%)	-8.64	-1.72	-26.54
Tracking Difference (%)	**-0.05**	**0.42**	**0.29**
Attribution Summary	Pricing Discrepancy	Fair Value Pricing	Securities Lending

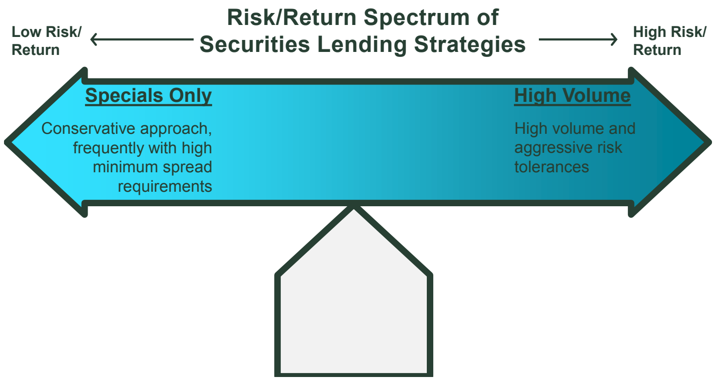
Source: SSGA.
*Reflects partial YTD returns. Inception Date: 12/09/2022.

Securities Finance Update

SSGA uses a balanced approach to lending for FRTIB

Program Design Approach

State Street Global Advisors' securities lending program focuses on balancing risk and returns while adapting to the characteristics of the FRTIB's lending program and its participants



Distinguishing Program Design & Features

1	Leading lending agent and cash reinvestment specialists
2	Customized program design and reporting to align with client objectives
3	Robust risk management controls and oversight of the program

STATE STREET GLOBAL ADVISORS

Leading Global Service Providers

State Street Global Advisors (SSGA) participates in securities lending through State Street Bank and Trust Company's (SSBT's) Securities Finance Agency Lending Program. State Street was the first financial institution to pursue regulatory approval to permit our funds to lend their securities.[1]

State Street Bank & Trust Securities Finance (Agent Lender)	State Street Global Advisors Cash Management Group (Cash Reinvestment)
Global lending agent with established borrower relationships facilitates lending and re-investment activity • $4.5+ trillion in lendable assets[2] • Lending in 37 international markets, with 9 investment centers, including 5 trading desks & 3 full service operations centers[2] • 450+ employees dedicated to securities lending activities[2] • ~150 borrower relationships[2]	Experienced cash managers with deep experience on the specific needs of securities lending collateral funds • ~$425[2] billion in AUM • 40+ Year history of managing cash mandates for global clients • Experienced Global Portfolio Management team and exclusive Cash Credit Research team located in three investment centers around the globe

The Agent Lender and its Cash Reinvestment Team are among the largest and longest tenured securities lending service providers in the industry.

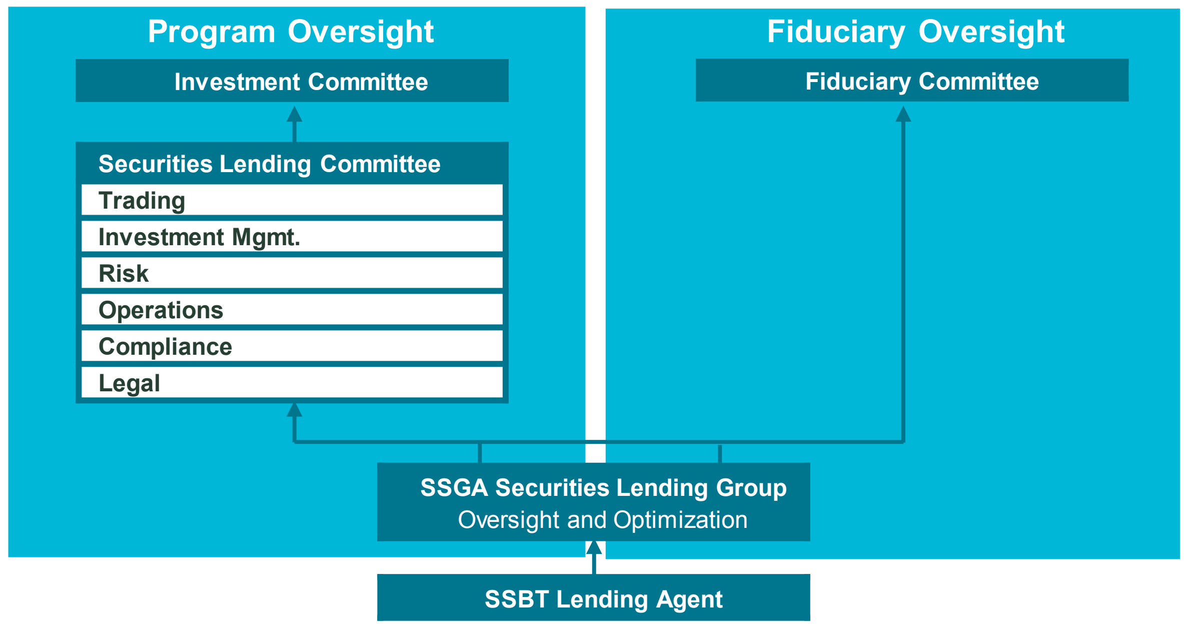
[1]Securities and Exchange Commission letter, "State Street Bank and Trust Company" (pub. avail. Jan. 29, 1972) https://www.sec.gov/divisions/investment/noaction/1971/statestreet122771.pdf]
[2]As of December 30, 2022.

State Street Global Advisors Securities Lending Oversight

Strong governance is of paramount importance within State Street Global Advisors' lending programs

- State Street Global Advisors employs a team of professionals dedicated solely to oversight and optimization of the lending program with fiduciary responsibilities independent of the lending agent
- State Street Global Advisors has created a multi-disciplinary committee dedicated to securities lending oversight
- Oversight of the program rises to the most senior committees within State Street Global Advisors

State Street Global Advisors Securities Lending Oversight Structure



Oversight Duties

Program Oversight Duties
- Oversees agent lender
- Develops and implements program policies
- Reviews program performance
- Establishes guidelines for program execution
- Evaluates program parameters and potential improvements
- Solicits and reviews risk recommendations

Fiduciary Oversight Duties
- Reviews conflicts of interest
- Evaluates effectiveness of control mechanisms & other fiduciary aspects

Securities Lending Market Update

U.S. Equity Markets:

- Equity markets declined, impacted by a confluence of macro events including inflation fears accompanied by prospects for large Federal Reserve tightening of interest rates, supply chain disruptions, Russia's invasion of Ukraine, and strict Covid lockdowns in China. These issues drove volatility in equity markets, and enhanced lending returns.
- The IPO issuances and SPAC mergers that drove lending activity in previous years, had a reversal of theme in 2022. As those markets dried up, many of the issuances from previous years became securities in high demand in lending markets in 2022. While lending volumes of U.S. Equities did not increase substantially in 2022, higher spreads did lead to a strong uptick in returns.

Fixed Income Markets:

- The Federal Reserve hiked 425 basis points in 2022 and did an unprecedented four 75 basis point hikes in a row.
- U.S. Treasury General Collateral (GC) remained stable for most of the year with solid demand. Overall, U.S. Treasury lending markets were relatively unchanged.
- Corporate bond borrowing was strong in 2022 as lending returns increased year over year, driven largely by increased spreads as opposed to increased volumes.

2022 FRTIB Performance Commentary

Reinvestment:

- Cash collateral reinvestment returns started the year strong and improved through July, at which point the Federal Reserve interest rate tightening started to catch-up and negatively impacted the reinvestment spread. By mid-December, the Cash Equivalents Account ("CEA") was yielding more than the G Fund, and all balances were moved into the CEA. Balances are expected to move back into the G Fund when the curve reverts to a positive slope and Debt Ceiling concerns have passed.
- In December, due to low reinvestment spreads the S and F Funds began accepting non-cash collateral (U.S. Treasury and Agency debentures) to improve portfolio utilization

C Fund:

- Supply continued to overwhelm demand for S&P 500 securities in the lending markets, limiting opportunities for lending.
- On loan balances increased early in the year, peaking in March, and then slowly trailed back to end the year with utilization levels near where the year started. The fund was largely loaning securities at easy borrow levels all year except for one corporate action trade in the 3rd quarter.

S Fund:

- S Fund composed most of the revenues for TSP participants, and demand for securities held in the S Fund was strong. Specials drove demand and revenues that peaked in July, aligning high loan balances with high reinvestment returns. While demand spreads remained strong throughout the year, utilization levels declined through the 3rd and 4th quarters.

F Fund:

- The lending program delivered relatively steady performance to the F Fund through July. In August, balances and revenues increased with the start of Treasury general collateral ("GC") lending. GC lending was ceased in December as reinvestment spreads evaporated.

Program Developments

I Fund was launched in December after a smooth transition of assets

- Balances and revenues are expected to ramp up in 2023, but will be more impacted by seasonal fluctuations, with Q2 generally being the highest performing quarter.

Debt Ceiling management

- G Fund balances were wound down in December based on yield curve dynamics. Therefore, Debt Ceiling issues will be a non-factor assuming the Debt Ceiling is resolved prior to the reversion of the yield curve.

Appendix A: Important Disclosures

Important Disclosures

Investing involves risk including the risk of loss of principal. Past performance is not a guarantee of future results.

This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected. The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information.

Investing in foreign domiciled securities may involve risk of capital loss from unfavourable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

Currency Risk is a form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged.

Bonds generally present less short term risk and volatility than stocks, but contain interest rate risk (as interest rates rise bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

Investing in high yield fixed income securities, otherwise known as "junk bonds", is considered speculative and involves greater risk of loss of principal and interest than investing in investment grade fixed income securities. These Lower-quality debt securities involve greater risk of default or price changes due to potential changes in the credit quality of the issuer.

Government bonds and corporate bonds generally have more moderate short-term price fluctuations than stocks, but provide lower potential long term returns.

ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs net asset value. Brokerage commissions and ETF expenses will reduce returns.

Passively managed funds invest by sampling the index, holding a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index.

Securities lending programs and the subsequent reinvestment of the posted collateral are subject to a number of risks, including the risk that the value of the investments held in the collateral may decline in value and may at any point be worth less than the original cost of that investment.

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SSGA generally delegates commodities management for separately managed accounts to SSGA FM, a wholly owned subsidiary of State Street and an affiliate of SSGA. SSGA FM is registered as a commodity trading advisor ("CTA") with the Commodity Futures Trading Commission and National Futures Association.

United States: State Street Global Advisors, 1 Iron Street, Boston, MA 02210-1641.

Information Classification: Limited Access

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