

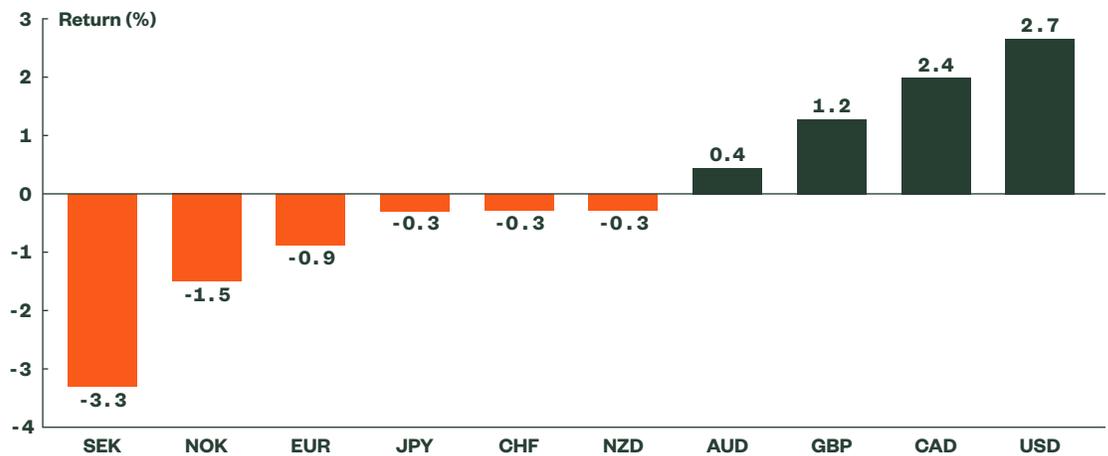
Currency Market Commentary

Aaron R Hurd, FRM
 Senior Portfolio Manager

Summary of Views

Strong US economic data, moderating risks of a banking/credit crisis, and a negotiated proposal to avert a debt ceiling shock pushed US yields and the US dollar higher during May. The Canadian dollar followed the US dollar higher on resilient economic data and the potential positive spillover from the improved near-term US growth outlook. Higher expected yields also supported the British pound, in response to a positive surprise in UK inflation, and the Australian dollar, as the Reserve Bank of Australia (RBA) stepped forth from the sidelines with another 0.25% increase in rates.

Figure 1
May 2023
Currency Return
vs. G10 Average



Source: Bloomberg and State Street Global Advisors, as of 31 May 2023. **Past performance is not a reliable indicator of future performance.**

Figure 2
May 2023
Directional Outlook

	Tactical Outlook	Strategic Outlook
USD	▲	▼
CAD	▼	—
EUR	▲	—
GBP	—	—
JPY	▲	▲
CHF	—	▼
NOK	▼	▲
SEK	—	▲
AUD	▼	—
NZD	▼	—

Note: All individual currency views in the table above are relative to the G-10 average.
 Source: State Street Global Advisors, as of 31 May 2023.

The Scandinavian currencies notably underperformed as both Sweden's Riksbank and Norway's Norges Bank have been relatively cautious in tightening monetary policy. The stalling uptrend in European Union (EU) growth and European Central Bank (ECB) policy expectations also likely weighed on the krone and krona as the euro softened in response to decelerating growth and monetary policy outlooks. The Scandinavian currencies have a tendency to behave as higher beta versions of the euro. The yen also underperformed as the rebound in global yields pushed the Japanese yen carry lower.

A main currency market driver for the month may have been the better near-term economic outlook and expectations of higher-for-longer monetary policy rates, but risks of a recession into next year remain. In fact, the persistence of inflation and the need for further monetary tightening likely increase negative tail risks into 2024. As a result, the US dollar should remain on the strong side for now. Global recession risks and the high likelihood that central banks might ease in response are positive for the yen but negative for pro-cyclical currencies such as the Australian dollar, the Canadian dollar, and the Norwegian krone, though the krone is already very cheap and may have a somewhat limited downside in the event of recession. The euro is likely to remain in a range, while the British pound is at the risk of falling back into stagflationary quicksand should the Bank of England have to tighten policy significantly into a slowing economy in order to finally gain control of inflation.

Review and Outlook by Currency

US Dollar (USD)

The US dollar gained more than 2.0% vs. the G10 average during May. Following the J.P. Morgan takeover of First Republic Bank, the prospect of a credit-driven recession and the end of monetary policy tightening sent the US dollar lower early in the month even after a better-than-expected employment report on 5 May. The senior loan officer survey released on 8 May dented that bearish-dollar narrative.

Credit conditions continued to tighten but not at an appreciably faster pace than before the bank failures in March. As a result, investor fear of a near-term recessionary chock abated and the US dollar began to recover. As the month progressed, the US dollar and US yields enjoyed positive momentum on the back of strong household consumption, new home sales, purchasing manager indexes, and durable goods orders, and higher-than-expected core Personal Consumption Expenditures (PCE) inflation (the Fed's preferred inflation gauge). By month-end, the US dollar was the top-performing G10 currency, while the market priced in a near 100% chance of another Fed rate hike by July, and priced out the rate cuts that had been expected by next November.

We have long held the view that the US dollar is likely to fall at least 10%–15% over the coming years, but is currently in a noisy transition period from a bull to a bear market. In the near term, the resilience of the US economy and the stickiness of inflation should support short-end US yields and the US dollar as we saw in May. As the cumulative impact of monetary tightening works its way through the economy and excess household pandemic savings decline, we expect a material economic slowdown, with the risk of a recession into 2024. That negative risk likely reduces the dollar's yield support, but may augment its safe-haven support as investors seek safe assets amid the growing recession fear and resurgent volatility in risky assets. Once we get through, or are at least well into, the global slowdown and see the Fed actually begin to ease monetary policy, investors are likely to look forward to an eventual recovery, bringing about a more sustainable US dollar downtrend.

Euro (EUR)

The year-to-date (YTD) euro rally ran out of steam in May, sending it down a modest 0.9% vs. the G10 average, but down nearly 3% vs. the US dollar. The euro narrative turned in May after a disappointing March retail sales and industrial production, as well as confirmation that Germany entered a technical recession with its second consecutive quarter of negative gross domestic product (GDP) growth.

The ECB raised rates by 0.25% on 4 May and indicated further increases are to come. However, the 0.25% hike marked a deceleration from the prior pace of 0.5% rate hikes, suggesting a more cautious path ahead. ECB President Christine Lagarde expressed a clear commitment to fight inflation, but investors saw little chance of meaningful upside surprises to policy rates as credit conditions tighten and economic data begins to disappoint.

Our models see downside risks for the euro vs. the US dollar over the near term, though we are more positive on the euro vs. the broader G10. This is largely the result of weakness across more cyclically sensitive G10 currencies rather than outright positive euro fundamentals. We saw an example of this late in May as the dovish Reserve Bank of New Zealand (RBNZ) policy announcement on 23 May drove the New Zealand dollar and the Australian dollar lower, helping the euro to gain vs. the G10 average. Again, it was not the euro strength as much as the weakness of the Australian dollar and the New Zealand dollar. The same can be said of the relative strength of the euro vs. the Norwegian krone and Swedish krona on the month. It was not strong EU fundamentals that led to euro-buying, as much as it was weaker fundamental outlooks for the Norwegian krone and the Swedish krona.

British Pound (GBP)

The British pound gained 1.2% relative to the G10 average in May. Like the euro, the British pound fell early in the month as investors took profit following the year-to-date rally. Unlike the euro, the pound bounced back. The pound reached its low for the month alongside local yields after the Bank of England meeting on 11 May (a 7–2 vote in favor of a 0.25% rate increase). From there, the better-than-expected March industrial production, another strong labor market report, a new cycle high in the April core Consumer Price Index (CPI), and a significant upside surprise in the April core retail sales prompted a rapid increase in market expectations for an additional 100 bp of monetary tightening this year and an accelerating move higher in the pound — not enough of a rally to beat the US dollar and the Canadian dollar, but enough for the British pound to end May with a solid gain vs. the G10 average.

We are neutral to slightly positive on the pound, but see serious risks ahead. For now, strong inflation underpins the pound on expectations that the Bank of England will have to raise policy rates to 5.5%, near the highest level in the G10. At the same time, the currency benefits from the more resilient than expected economic data. However, wage growth is now running near 7%, increasing the risk that inflation becomes entrenched. This will put significant pressure on the BoE to act aggressively enough to reintroduce recession and/or stagflation fears. This is a difficult situation for the currency of a country with large, persistent current account deficits, which is also vulnerable due to the steady rundown in excess household savings from the pandemic and longer-term impairment to potential growth due to Brexit. Should the BoE adopt a cautious approach to reduce recession risk, which it seems likely to do, the continuing rise in both wages and inflation risks a loss of policy credibility, which would hurt the pound.

Japanese Yen (JPY)

The yen finished down 0.3% relative to the G10 average in May, but was down nearly 3% against the US dollar. The yen has been largely driven by yields outside Japan. Falling yields early in the month pushed the yen up 1.32% by 4 May as the US 2-year yield fell below 3.8%. The sharp rise in 2-year yields to over 4.5% in response to better US economic data and a proposed resolution to the debt ceiling crisis later pushed the yen back down into negative territory through the month-end.

We continue to watch for signs of a change in the Bank of Japan's (BoJ) policy. BoJ Governor Kazuo Ueda remains consistent in his message that the underlying price trends and the impact of the Yield Curve Control (YCC) policy must be patiently, and carefully, studied. That said, CPI ex-fresh-food and -energy reached a new cycle high of 4.1% in April. Unless we see a major downshift in growth and inflation, we believe that at some point, later in Q3 or Q4, the BoJ will further relax the YCC policy, allowing yields to rise. Should that happen, we expect the yen to bounce back.

We are positive on the yen vs. the G10 average, though we see room for some additional weakness vs. the US dollar over the very near term. Timing the yen strength is difficult. At the moment, stubborn inflation and resilient economic data focus attention on tighter global monetary policy for longer, and are helping to support broader risk/equity market sentiment, both of which weigh on the yen. However, we expect both growth and inflation data to weaken steadily during the second half of the year as the cumulative impact of monetary tightening works through the global economy and softens labor markets. As the global economy slows, we expect investors to price rate cuts more aggressively into 2024 and equity markets to be fragile in the face of downside earnings risk. Both of these factors should help to support the yen. Any relief from an additional loosening of BoJ YCC policy will only add to the upside. Over a longer-term horizon, the yen remains significantly below our estimates of long-run fair value, suggesting that we can easily see 10%–20% upside over the next 1–3 years.

Canadian Dollar (CAD)

After a wobble to start the month, the Canadian dollar trended higher to finish up 2.4% in May relative to the G10 average, the second best performance in the group behind the US dollar. Given the close ties between the US and Canadian economies as well as the historically high correlation of the US dollar and the Canadian dollar, much of the Canadian dollar's strength vs. the G10 was likely a positive spillover from the better economic data and rising yields in the US. But, the Canadian economy also impressed. The Manufacturing Purchasing Managers' Index (PMI) rose back into expansionary territory, employment gains beat expectations, inflation surprised to the upside, and Q1 GDP came in well above expectations — at 3.1% QoQ annualized vs. 2.5% expected. Markets now anticipate another 25 bp rate increase from the Bank of Canada by September and no longer expect meaningful cuts later this year.

Our models are negative on the Canadian dollar on weaker commodity price trends and poor relative local equity market performance, though the signal is improving on the back of better economic data. Like the US, the Canadian labor market is tight and the consumer is holding up better than one might expect, given the high levels of household debt and the rapid rise in interest rates over the past year. Its high correlation to the US dollar also makes it more attractive than other more cyclical currencies such as the Norwegian krone and the Australian dollar in a global hard landing scenario. In the longer term, the Canadian dollar looks cheap in our estimates of fair value relative to the euro, the franc, and the US dollar, and its long-term potential growth is poised to improve on an aggressive increase in immigration and substantial plans to invest in sectors such as green energy technology.

Swiss Franc (CHF)

The franc lost 0.3% vs. the G10 average during May. We do not yet have the Swiss foreign exchange reserves for May, but the ongoing Swiss National Bank (SNB) intervention — selling reserves and buying the franc — likely provided support against pressure from rising relative yields outside Switzerland and weaker growth and inflation data. From year-end through April, reserves fell by 6.5%. A small portion of that fall may be attributed to changes in exchange rates, but we believe the majority has been due to the direct intervention to support the franc as part of the SNB's campaign to control inflation. SNB's buying of the franc, anxiety regarding stubborn inflation, and weak EU growth probably limit investor interest in selling the franc, given its historical role as a safe haven and attractive stagflation hedge.

We are negative on the franc over both the tactical and strategic horizons. The franc is the most expensive G10 currency in our estimates of long-run fair value. Growth data continues to soften, inflation appears to be rolling over, and, besides the yen, the franc has the lowest yields in the G10. Despite those negative forces, our pessimistic view of the franc will require patience. Inflation came in below expectations in April, but both headline and core measures remain above 2%. SNB president Thomas Jordan has been clear that inflation above 2% risks becoming imbedded. The SNB is likely to continue to raise interest rates and intervene to prevent any notable franc weakness.

Norwegian Krone (NOK)

The krone fell 1.5% in May vs. the G10 average and is now down near 9% this year, by far the worst YTD performance in the G10. The krone managed to temporarily rally following the Norges Bank's 4 May decision to raise rates by 0.25% to 3.25%, with comments pointing to another increase in June. The bank also singled out the krone, suggesting that the ongoing weakness may require additional policy rate increases. A modest rebound in the Manufacturing PMI, March industrial production, and Q1 mainland GDP, as well as higher-than-expected inflation, helped the krone hold its gains during the first half of the month.

Then things turned sour for the krone, sending it down steadily during the second half of the month. Oil prices trended lower on weaker China growth and worries about global economic softness in H2. Meanwhile, rapidly rising interest rates in the US and UK made Norway's 3.25% policy rate look less attractive. Even the ECB's 3.25%, with the markets expecting two more rate hikes over the summer, looks attractive in comparison: Why buy the krone with a 3.25% interest rate when you can get the same from the euro without the krone's high sensitivity to oil and equity downside? The Norges Bank has flagged the risk that a weaker krone might bias rates upward, but unless it is willing to raise rates materially, at least by 100 bp relative to the ECB, it is hard to see it arresting the downward pressure on the currency. For these reasons — weak growth, shaky oil markets, and low yields relative to the krone's high risks — we remain bearish on the currency.

In the long term, the story is more positive. The krone is historically cheap relative in our estimates of fair value and is supported by steady potential growth. Thus, in addition to a very short-term bounce from an oversold condition, we expect strong long-run gains, but reiterate that the krone faces a tough medium-term environment.

Swedish Krona (SEK)

The krona fell 3.3% against the G10 average for the month. Sweden is in a difficult position and it is reflected in its weak currency. The Q1 GDP surprised to the upside but looks soft in Q2. The Manufacturing PMI is well below 50, signifying contraction and a trend lower. The Services PMI is barely in expansionary territory, at 50.5 for April, whereas the majority of G10 countries enjoy robust services sector growth. Retail sales is near flat year-to-date, though they did bounce back to growth in April after two months of outright contraction. Decelerating EU growth further softens the outlook on Sweden. Core inflation surprised to the downside but remains at 8.4%. The Riksbank raised interest rates by 0.5% in April and forecasts another 0.25% increase, and warned in May that more

may be required if the currency continues to fall. However, the rate of 3.50%, with expectations of 3.75%, is about in line with the ECB despite greater inflationary and recessionary risks. If the Riksbank were to take much more aggressive action commensurate with the level of inflation, it would risk a disorderly shock due to the extremely high household and commercial real estate debt levels. This precarious set of growth and inflation risks and constraints on the central bank does not encourage confidence in the currency; the krona is suffering as a result.

The best thing we can say about the krona is that the weakness in Sweden's fundamentals is already well priced by the weak currency, which is near record lows against the euro and the US dollar. As a result of the krona's cheap valuation, we are neutral with a defensive bias over the near term despite the economic headwinds. In the long term, the outlook is much more positive. Eventually Swedish and global inflation would be under control and the Swedish and regional economies would begin a more durable recovery. Once that happens, the krona has substantial room to appreciate back toward its long-run fair value on a sustained basis.

Australian Dollar (AUD)

The Australian dollar finished May with a gain of 0.4% relative to the G10 average thanks to an early month rally following the unexpected rate increase from the Reserve Bank of Australia (RBA) on 2 May. The policy rate now stands at 3.85% and is expected to rise just above 4% by August. The positive rates surprise was not enough to sustain an uptrend. A disappointing employment report on 17 May, weaker Chinese growth data, a poor retail sales report, falling commodity prices, and the accelerating rise in yields across the US, UK, and Canada pushed the Australian dollar well off its early month high during the second half of May.

We continue to see risks in the Australian dollar tilted to the downside. Weak/choppy commodity prices, slowing consumer activity, negative real wage growth, and our expectation for rising equity market risk in H2 more than offset the RBA's pivot back to monetary tightening. In addition, the inability of China's growth to broaden meaningfully beyond the domestic consumption/services sector should continue to present further headwinds, though the recent stream of weak data may prompt additional stimulus from the Chinese government and help fuel a temporary Australian dollar rally from its recent lows. In the longer term, the Australian dollar outlook is mixed. It is cheap vs. the US dollar and the Swiss franc and has room to appreciate, but is expensive against the pound, the yen, and the Scandinavian currencies.

New Zealand Dollar (NZD)

The New Zealand dollar was down 0.3% vs. the G10 average. The month began on a positive note with some spillover from the RBA rate hike surprise on 2 May and a better-than-expected Q1 jobs report on the same day (+0.8% employment growth compared to expectations of +0.5%). Cracks in the New Zealand dollar began to appear following a sharp drop in expected inflation to 2.79% in the RBNZ's quarterly survey. Weaker Chinese data and falling commodity prices also weighed on the currency. The biggest negative shock, however, was the dovish rate hike from the RBNZ on 24 May. The bank raised rates by 0.25% to a G10-leading 5.5% but signaled a pause and forecast a mild recession. The New Zealand dollar fell nearly 1.75% against the G10 average on the day and remained weak through month-end.

We are pessimistic about the New Zealand dollar in the near term. Rising recession risk and the weak external balance more than offset any benefit of high yields, particularly now that the RBNZ has signaled a pause. We expect the tepid Chinese growth outlook and higher expected yields in other G10 countries, notably the US and the UK, to be additional headwinds for the currency. In the longer term, our New Zealand dollar outlook is mixed. Our estimates of long-run fair value suggest that it is cheap vs. the US dollar and the franc, and has room to appreciate, but is fairly valued vs. Canadian dollar and the euro, and expensive against the Australian dollar, the British pound, the Japanese yen, and the Scandinavian currencies.

About State Street Global Advisors

Our clients are the world's governments, institutions and financial advisors. To help them achieve their financial goals we live our guiding principles each and every day:

- Start with rigor
- Build from breadth
- Invest as stewards
- Invent the future

For four decades, these principles have helped us be the quiet power in a tumultuous investing world. Helping millions of people secure their financial futures. This takes each of our employees in 29 offices around the world, and a firm-wide conviction that we can always do it better. As a result, we are the world's fourth-largest asset manager* with US \$3.62 trillion[†] under our care.

* Pensions & Investments Research Center, as of December 31, 2021.

[†] This figure is presented as of March 31, 2023 and includes approximately \$65.03 billion USD 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.

ssga.com

Marketing communication

State Street Global Advisors Worldwide Entities

Abu Dhabi: State Street Global Advisors Limited, ADGM branch is regulated by the Financial Services Regulatory Authority (FSRA). This document is intended for Professional Clients or Market Counterparties only as defined by the FSRA and no other person should act upon it. State Street Global Advisors Limited, ADGM Branch, Al Khatem Tower, Suite 42801, Level 28, ADGM Square, Al Maryah Island, P.O. Box 76404, Abu Dhabi, United Arab Emirates. Regulated by the ADGM Financial Services Regulatory Authority. T: +971 2 245 9000. **Australia:** State Street Global Advisors, Australia, Limited (ABN 42 003 914 225) is the holder of an Australian Financial Services License (AFSL Number 238276). Registered office: Level 14, 420 George Street, Sydney, NSW 2000, Australia. T: +612 9240-7600. F: +612 9240-7611. **Belgium:** State Street Global Advisors Belgium, Chaussée de La Hulpe 185, 1170 Brussels, Belgium. T: +32 2 663 2036. State Street Global Advisors Belgium is a branch office of State Street Global Advisors Europe Limited, registered in Ireland with

company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Canada:** State Street Global Advisors, Ltd., 1981 McGill College Avenue, Suite 500, Montreal, Qc, H3A 3A8, T: +514 282 2400 and 30 Adelaide Street East Suite 800, Toronto, Ontario M5C 3G6. T: +647 775 5900. **France:** State Street Global Advisors Europe Limited, France Branch ("State Street Global Advisors France") is a branch of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors France is registered in France with company number RCS Nanterre 899 183 289, and its office is located at Coeur Défense – Tour A – La Défense 4, 33e étage, 100, Esplanade du Général de Gaulle, 92 931 Paris La Défense Cedex, France. T: +33 1 44 45 40 00. F: +33 1 44 45 41 92. **Germany:** State Street Global Advisors Europe Limited, Branch in Germany, Brienner Strasse 59, D-80333 Munich, Germany ("State Street Global Advisors Germany"). T: +49 (0)89 55878 400. State Street Global Advisors Germany is a branch of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at

78 Sir John Rogerson's Quay, Dublin 2. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103-0200. **Ireland:** State Street Global Advisors Europe Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered Number: 49934. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Europe Limited, Italy Branch ("State Street Global Advisors Italy") is a branch of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Italy is registered in Italy with company number 11871450968 – REA: 2628603 and VAT number 11871450968, and its office is located at Via Ferrante Aporti, 10 - 20125 Milan, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Japan:** State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan. T: +81-3-4530-7380. Financial Instruments Business Operator, Kanto Local Financial Bureau (Kinsho #345), Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association.

Netherlands: State Street Global Advisors Netherlands, Apollo Building 7th floor, Herikerbergweg 29, 1101 CN Amsterdam, Netherlands. T: +31 20 7181 000. State Street Global Advisors Netherlands is a branch office of State Street Global Advisors Europe Limited, registered in Ireland with company number 49934, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Singapore:** State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D, regulated by the Monetary Authority of Singapore). T: +65 6826-7555. F: +65 6826-7501. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No. 5776591 81. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. **United States:** State Street Global Advisors, 1 Iron Street, Boston, MA 02210-1641. T: +1 617 786 3000.

Important Risk Information

Investing involves risk including the risk of loss of principal. 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.

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.

The views expressed in this material are the views of the Report Component Team through the period ended 31 May 2023 and are subject to change based on market and other conditions. 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.

This document may contain certain statements deemed to be forward-looking statements. All statements, other than historical facts, contained within this document that address

activities, events or developments that SSGA expects, believes or anticipates will or may occur in the future are forward-looking statements. These statements are based on certain assumptions and analyses made by SSGA in light of its experience and perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate in the circumstances, many of which are detailed herein. Such statements are subject to a number of assumptions, risks, uncertainties, many of which are beyond SSGA's control. Please note that any such statements are not guarantees of any future performance and that actual results or developments may differ materially from those projected in the forward-looking statements.

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.

The information contained in this communication is not a research recommendation or 'investment research' and is classified as a 'Marketing Communication' in accordance with the Markets in Financial Instruments Directive

(2014/65/EU) or applicable Swiss regulation. This means that this marketing communication (a) has not been prepared in accordance with legal requirements designed to promote the independence of investment research (b) is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This communication is directed at professional clients (this includes eligible counterparties as defined by the "appropriate EU regulator") who are deemed both knowledgeable and experienced in matters relating to investments. The products and services to which this communication relates are only available to such persons and persons of any other description (including retail clients) should not rely on this communication.

All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or

timeliness of the data and have no liability for damages of any kind relating to the use of such data.

The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without SSGA's express written consent.

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.

Past performance is not a reliable indicator of future performance.

Assets may be considered "safe havens" based on investor perception that an asset's value will hold steady or climb even as the value of other investments drops during times of economic stress. Perceived safe-haven assets are not guaranteed to maintain value at any time.

© 2023 State Street Corporation.
All Rights Reserved.
ID1620505-4948703.111.GBL.RTL 0623
Exp. Date: 06/30/2024