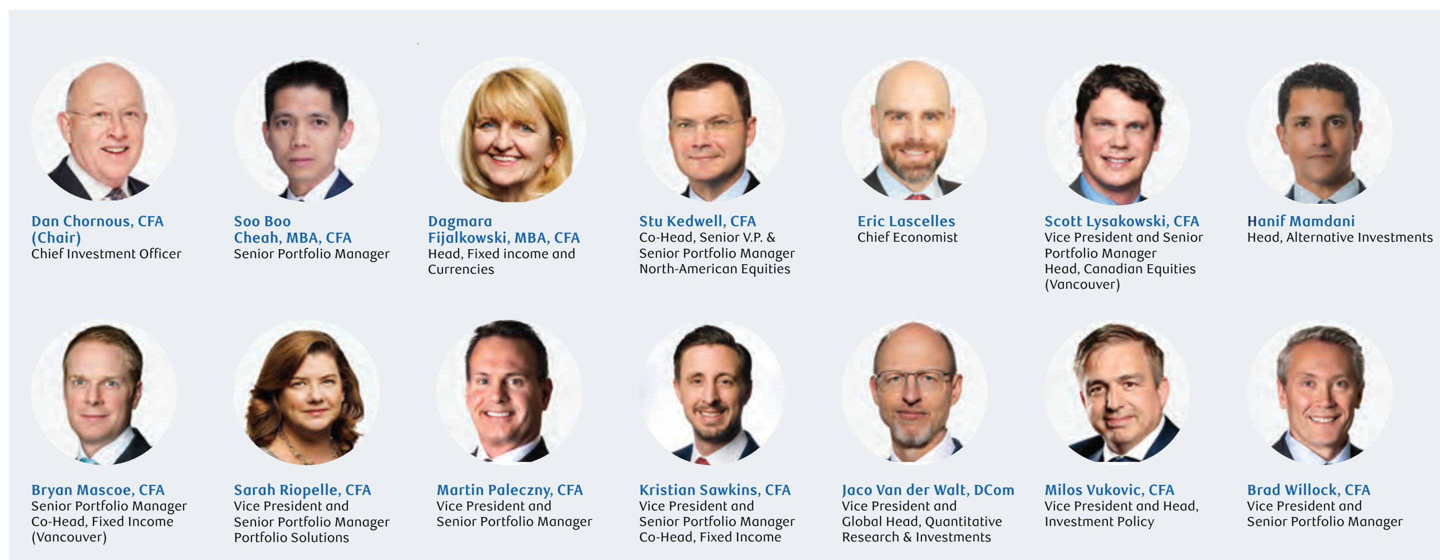
RBC Global Asset Management

The Global Investment Outlook

RBC GAM Investment Strategy Committee

SUMMER 2023

The RBC GAM Investment Strategy Committee



The RBC GAM Investment Strategy Committee consists of senior investment professionals drawn from all areas of RBC Global Asset Management. The Committee regularly receives economic and capital markets related input from internal and external sources. Important guidance is provided by the Committee's regional equity advisors (North America, Europe, Asia, Emerging Markets) and from the Global Fixed Income & Currencies sub-committee. From this, the Committee builds a detailed global investment forecast looking one year forward.

The Committee's view includes an assessment of global fiscal and monetary conditions, projected economic growth and inflation, as well as the expected course of interest rates, major currencies, corporate profits and stock prices.

From this global forecast, the RBC GAM Investment Strategy Committee develops specific guidelines that can be used to manage portfolios.

These include:

- The recommended mix of cash, fixed income instruments, and equities.
- The recommended global exposure of fixed income and equity portfolios.
- The optimal term structure for fixed income investments.
- The suggested sector and geographic make-up within equity portfolios.
- The preferred exposure to major currencies.

Results of the Committee's deliberations are published quarterly in *The Global Investment Outlook*.

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Executive summary

Eric Savoie, MBA, CFA, CMT
Investment Strategist
RBC Global Asset Management Inc.

Daniel E. Chornous, CFA
Chief Investment Officer
RBC Global Asset Management Inc.

The global economy is slowing as higher borrowing costs and tighter financial conditions weigh on activity. At this late stage in the business cycle, short-term interest rates are likely nearing their peak, bonds are more appealing than they've been in a long time, and equity markets could be vulnerable to correction should a recession materialize.

Economies are likely headed for recession

The economy has been resilient so far this year, but the most aggressive monetary-tightening cycle since the 1970s is starting to have an impact. Higher interest rates have increased the cost of borrowing, diminished risk appetite and emerged as the root cause of banking-sector stress. Moreover, business confidence is waning, global trade is beginning to shrink and consumers are increasingly turning to credit to support their spending. Further inhibiting growth will be the U.S. debt-ceiling resolution, which comes with a commitment for reduced government spending over the next two years. All in all, we anticipate that developed-world economies will fall into recession within the next few quarters. We assess the odds of a contraction at 80%, up from 70% last quarter due to the impact of credit tightening in the wake of the short-lived banking crisis earlier this year. That said, we expect any recession to be mild to middling in depth and fairly short at just two to three quarters. Our growth forecasts have been slightly upgraded from a quarter ago, but they are still below the consensus. A mild recession could bring about some positives as it would help cool inflation, prompt central banks to cut interest rates and set the stage for the next durable economic expansion.

Inflation, down from last year's highs, is progressing in the right direction

The four key factors that drove inflation to its highest level in four decades are all turning. Commodity prices are well off their prior peaks, supply-chain problems have mostly abated, monetary policy has become restrictive and fiscal policy is starting to act as a headwind. Other indicators also point to fading inflationary pressures. Chinese producer prices are dropping, companies have reduced plans to raise wages and the share of products subject to rapid price increases has declined. There is, however, still some distance to go before inflation returns to levels targeted by central banks. The path to 3% inflation can likely be traversed in the next several months in North America, but achieving the 2% target could take considerably longer. The biggest barrier to continued significant declines in inflation in the near term is service-sector inflation, which remains hot due to a strong labour market. A recession would likely be needed to cool price pressures in this sector. Taking all of this together, we expect that inflation can continue falling and our inflation estimates are below the consensus.

U.S. dollar takes a breather within a longer-term decline

The U.S. dollar kept to a narrow 4% range in the first five months of 2023 in what we believe will turn out to be a pause in the currency's longer-term sell-off. Recent U.S. regional-bank failures and monetary and fiscal trends support our view that the dollar will weaken, but this outlook has been challenged as the U.S. economy remained more resilient than its global peers. We retain our forecast that the greenback will fall over the next year and expect the declines to be greater than what we had been forecasting last quarter.

The end of central bank rate hikes is coming into view

A massive amount of monetary tightening has already been delivered and policy rates are now restrictive in most major developed economies. As a result, further aggressive rate hikes are becoming less warranted and, while we could see rates inch a bit higher still, we are likely approaching the finish line in the current rate-hiking cycle. The near-term risks to this assumption tilt toward central banks raising rates a bit more than expected should inflation fail to come down and economies avoid recession. But in our view, the pressure to raise rates will continue to diminish and several central banks should be in a position to cut rates, if necessary, over the year ahead as economies weaken and inflation falls. We don't think interest rates will retreat to the historic lows of 2020 or even the average of the post-financial-crisis era, but we do think that they will be suppressed in the years ahead by a combination of high debt, aging populations and structurally slow economic growth.

Bonds offer attractive return potential; valuation risk is minimal

It appears that the relentless increase in bond yields from last year has eased and investors have been conditioned to a higher interest-rate environment. As inflation soared, investors embedded a higher inflation premium into bonds and our models suggest the reverse will be true as inflation moderates. The other piece of our fixed-income model is the real, or after-inflation, interest rate, which has been gradually climbing from negative levels. Over the longer term, we continue to expect real interest rates to rise slightly above zero as savers will ultimately need to be compensated for saving instead of spending. But any increase in real yields will likely be trivial in the near term compared to the significant expected declines in the inflation premium. As a result, we look for the 10-year Treasury-bond yield to fall to 3.25% over the next year, which would generate close to a 7% total return with minimal valuation risk. In addition, a variety of technical signals indicate support for bond prices.

Rally in stocks features narrow leadership, upside is limited

The stock-market rebound in late 2022/early 2023 was propelled by diminishing investor concerns regarding inflation and less worry about the sustainability of economic growth. The rally was initially broad-based across regions, but returns in recent months have been concentrated in a narrow set of U.S. mega-cap technology stocks. Apart from the U.S. large-cap market, which has been fueled by excitement about artificial intelligence, most major indices were flat or down for the quarter. In fact, even within the S&P 500 Index, performance has been lacklustre beneath the surface. While the S&P 500 rose 8.9% in the five months ended May 31, 2023, the equal-weighted version, which neutralizes the impact of large technology names, was down 1.4% in that period. We would prefer to see expanding breadth alongside a rising stock-market index to confirm a healthy, durable, bull market.

The bigger threat to the stock market is now the sustainability of corporate profits which have been struggling and will be vulnerable if the economy falls into recession. S&P 500 earnings growth has currently stalled as rising costs weigh on profit margins. Moreover, earnings are situated above their long-term trend and we've never seen a contraction in the economy that didn't force profits at least back to their long-term trend line. In a slowdown scenario, S&P 500 profits could fall as much as 15% from their peak, limiting the upside potential for stocks.

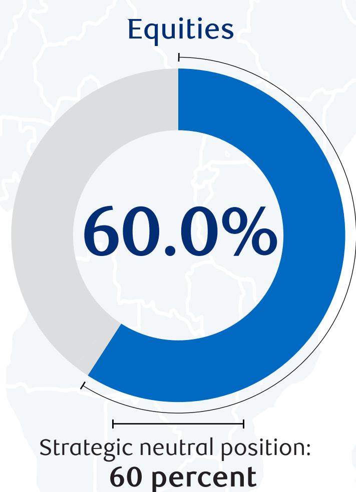
Asset mix – neutralizing tactical allocation

Our asset mix seeks to balance the risks and opportunities given a variety of scenarios for the economy and financial markets. We tend to run at least a mild tilt toward stocks to capture the risk premium versus bonds over the long term. But that premium is currently small and, given our base case that the economy is headed for recession over the next year, we are reluctant to hold an overweight position in stocks at this time. As a result, we removed the last of our overweight during the quarter, trimming our stock allocation by 100 basis points, moving half the proceeds into fixed income and half into cash. Our allocations to stocks, bonds and cash are now all in line with our strategic neutral levels. While we no longer have any tactical risk in our asset mix, we can't ignore the fact that the economy has not yet stumbled and that there are pathways to a soft landing. To add back equity exposure, we would want to see an easing of financial conditions, an improvement in economic leading indicators and expanding equity-market breadth, particularly in the U.S. For a balanced global investor, we currently recommend an asset mix of 60 percent equities (strategic neutral position: 60 percent) and 38 percent fixed income (strategic neutral position: 38 percent), with the balance in cash. Actual fund or client portfolio positioning may differ depending on individual investment policies.

Recommended asset mix

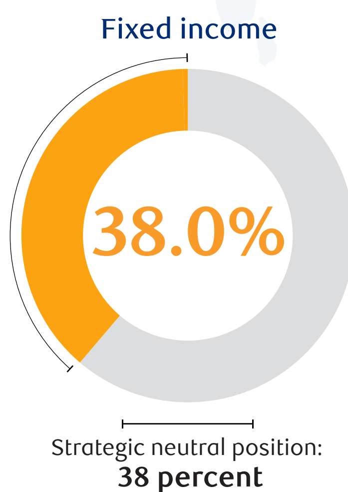
RBC GAM Investment Strategy Committee

Equities



Strategic neutral position:
60 percent

Fixed income



Strategic neutral position:
38 percent

Cash

Strategic neutral position:
2 percent

Note: as of May 31, 2023. Source: RBC GAM

Economic & capital markets forecasts

Economic forecast (RBC GAM Investment Strategy Committee)

	United States		Canada		Europe		United Kingdom		Japan		China		Emerging markets*	
	Summer 2023	Change from Spring 2023	Summer 2023	Change from Spring 2023	Summer 2023	Change from Spring 2023	Summer 2023	Change from Spring 2023	Summer 2023	Change from Spring 2023	Summer 2023	Change from Spring 2023	Summer 2023	Change from Spring 2023
Real GDP														
2022A	2.06%		3.40%		3.52%		4.10%		1.00%		3.02%		3.41%	
2023E	1.00%	0.30	0.60%	0.40	0.10%	(0.10)	(0.20%)	0.40	0.60%	(0.20)	5.80%	1.00	4.10%	(0.20)
2024E	0.60%	0.10	0.70%	0.40	0.70%	0.40	0.60%	N/C	1.10%	N/C	4.30%	N/C	4.20%	(0.10)
CPI														
2022A	7.99%		6.78%		8.38%		9.06%		2.51%		1.88%		4.83%	
2023E	3.90%	0.60	3.20%	(0.30)	5.60%	1.70	6.20%	0.80	2.50%	0.10	0.70%	(0.50)	5.40%	0.30
2024E	2.40%	N/C	2.20%	(0.10)	2.50%	0.30	2.40%	0.10	1.40%	0.10	2.10%	N/C	5.60%	0.20

A = Actual E = Estimate *GDP Weighted Average of China, India, South Korea, Brazil, Mexico and Russia.

Targets (RBC GAM Investment Strategy Committee)

	May 2023	Forecast May 2024	Change from Spring 2023	1-year total return estimate* (%)
Currency markets against USD				
CAD (USD–CAD)	1.36	1.26	0.03	7.6
EUR (EUR–USD)	1.07	1.20	0.02	10.8
JPY (USD–JPY)	139.33	116.00	N/C	14.2
GBP (GBP–USD)	1.24	1.30	0.01	4.0
Fixed income markets				
U.S. Fed Funds Rate (upper bound)	5.25	4.75	(0.50)	
U.S. 10-Year Bond	3.64	3.25	(0.50)	7.0
Canada Overnight Rate	4.50	4.00	(0.50)	
Canada 10-Year Bond	3.19	2.75	(0.25)	7.0
Eurozone Deposit Facility Rate	3.25	3.50	N/C	
Germany 10-Year Bund	2.28	2.25	N/C	2.6
U.K. Base Rate	4.50	4.75	0.75	
U.K. 10-Year Gilt	4.18	3.75	0.25	7.8
Japan Overnight Call Rate	-0.07	0.00	(0.10)	
Japan 10-Year Bond	0.44	0.75	N/C	(2.6)
Equity markets				
S&P 500	4180	4125	150	0.4
S&P/TSX Composite	19572	20000	(1250)	5.7
MSCI Europe	152	160	N/C	8.9
FTSE 100	7446	7700	(350)	7.5
Nikkei	30888	32500	3400	7.2
MSCI Emerging Markets	959	1010	(10)	8.4

*Total returns are expressed in local currencies with the exception of MSCI Emerging Markets whose return is expressed in USD. Source: RBC GAM

Recommended asset mix

Asset mix – the allocation within portfolios to stocks, bonds and cash – should include both strategic and tactical elements. Strategic asset mix addresses the blend of the major asset classes offering the risk/return tradeoff best suited to an investor's profile. It can be considered to be the benchmark investment plan that anchors a portfolio through many business and investment cycles, independent of a near-term view of the prospects for the economy and related expectations for capital markets. Tactical asset allocation refers to fine tuning around the strategic setting in an effort to add value by taking advantage of shorter-term fluctuations in markets.

Every individual has differing return expectations and tolerances for volatility, so there is no "one size fits all" strategic asset mix. Based on a 40-year study of historical returns[1] and the volatility[2] of returns (the range around the average return within which shorter-term results tend to fall), we have developed five broad profiles and assigned a benchmark strategic asset mix for each. These profiles range from very conservative through balanced to aggressive growth. It goes without saying that as investors accept increasing levels of volatility, and therefore greater risk that the actual experience will depart from the longer-term norm, the potential for returns rises. The five profiles presented below may assist investors in selecting a strategic asset mix best aligned to their investment goals.

Each quarter, the RBC GAM Investment Strategy Committee publishes a recommended asset mix based on our current view of the economy and return expectations for the major asset classes. These weights are further divided into recommended exposures to the variety of global fixed income and equity markets. Our recommendation is targeted at the Balanced profile where the benchmark (strategic neutral) setting is 60% equities, 38% fixed income, and 2% cash.

A tactical range of +/- 15% around the benchmark position allows us to raise or lower exposure to specific asset classes with a goal of tilting portfolios toward those markets that offer comparatively attractive near-term prospects.

This tactical recommendation for the Balanced profile can serve as a guide for movement within the ranges allowed for all other profiles.

The value-added of tactical strategies is, of course, dependent on the degree to which the expected scenario unfolds.

Regular reviews of portfolio weights are essential to the ultimate success of an investment plan as they ensure current exposures are aligned with levels of long-term returns and risk tolerances best suited to individual investors.

Anchoring portfolios with a suitable strategic asset mix, and placing boundaries defining the allowed range for tactical positioning, imposes discipline that can limit damage caused by swings in emotion that inevitably accompany both bull and bear markets.

[1]**Average return**: The average total return produced by the asset class over the period 1983 – 2023, based on monthly results.
[2]**Volatility**: The standard deviation of returns. Standard deviation is a statistical measure that indicates the range around the average return within which 2/3 of results will fall into, assuming a normal distribution around the long-term average.

Global asset mix

	Benchmark policy	Allowable range	Summer 2022	Fall 2022	New Year 2023	Spring 2023	**Summer 2023**
Cash	**2.0%**	0.0% – 15.0%	1.5%	1.0%	1.0%	1.5%	**2.0%**
Bonds	**38.0%**	23.0% – 53.0%	36.0%	37.5%	37.0%	37.5%	**38.0%**
Stocks	**60.0%**	45.0% – 75.0%	62.5%	61.5%	62.0%	61.0%	**60.0%**

Note: Effective June 1, 2020, we reset our strategic neutral positions to reflect long-lasting changes in economy and capital markets' dynamics. Boosting strategic neutral equity exposure by 5% and reducing fixed income by same amount in our reference balanced portfolio.

Regional allocation

Global bonds	**WGBI* May 2023**	Allowable range	Summer 2022	Fall 2022	New Year 2023	Spring 2023	**Summer 2023**
North America	**45.2%**	35.2% – 55.2%	48.7%	45.2%	51.8%	49.0%	**42.7%**
Europe	**34.5%**	24.5% – 44.5%	39.0%	40.2%	30.7%	31.2%	**37.1%**
Asia	**20.3%**	10.3% – 30.3%	12.4%	14.6%	17.6%	19.8%	**20.3%**

Global equities	**MSCI** May 2023**	Allowable range	Summer 2022	Fall 2022	New Year 2023	Spring 2023	**Summer 2023**
North America	**68.2%**	58.2% – 78.2%	68.8%	70.0%	71.0%	68.0%	**67.7%**
Europe	**15.8%**	5.8% – 25.8%	15.4%	14.0%	13.6%	15.5%	**15.8%**
Asia	**7.7%**	0.0% – 17.7%	7.9%	8.1%	7.4%	8.2%	**8.4%**
Emerging markets	**8.3%**	0.0% – 18.3%	7.9%	7.9%	8.1%	8.4%	**8.1%**

Our asset mix is reported as at the end of each quarter. The mix is fluid and may be adjusted within each quarter, although we do not always report on shifts as they occur. The weights in the table should be considered a snapshot of our asset mix at the date of release of the Global Investment Outlook.

Global equity sector allocation

	MSCI May 2023**	RBC GAM ISC Spring 2023	RBC GAM ISC Summer 2023	Change from Spring 2023	**Weight vs. benchmark**
Energy	5.09%	6.68%	5.09%	(1.60)	100.0%
Materials	4.33%	5.53%	4.33%	(1.20)	100.0%
Industrials	10.54%	12.53%	10.54%	(1.99)	100.0%
Consumer discretionary	10.64%	10.77%	10.64%	(0.13)	100.0%
Consumer staples	7.78%	5.84%	8.78%	2.94	112.9%
Health care	13.59%	15.33%	15.59%	0.26	114.7%
Financials	13.19%	14.37%	12.19%	(2.18)	92.4%
Information technology	22.32%	21.37%	23.02%	1.66	103.1%
Communication services	7.01%	5.94%	7.01%	1.08	100.0%
Utilities	3.01%	0.92%	1.31%	0.39	43.5%
Real estate	2.50%	0.72%	1.50%	0.78	60.0%

*FTSE World Government Bond Index. **MSCI World Index. Source: RBC GAM Investment Strategy Committee

At RBC GAM, we have a team dedicated to setting and reviewing the strategic asset mix for all of our multi-asset solutions. With an emphasis on consistency of returns, risk management and capital preservation, we have developed a strategic asset allocation framework for five client risk profiles that correspond to broad investor objectives and risk preferences. These five profiles range from Very Conservative through Balanced to Aggressive Growth.

Very Conservative

Asset class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0-15%	1.5%	2.0%
Fixed Income	73%	68-88%	72.5%	73.0%
Total Cash & Fixed Income	75%	60-90%	74.0%	75.0%
Canadian Equities	10%	0-20%	10.3%	9.9%
U.S. Equities	8%	0-18%	8.3%	7.9%
International Equities	7%	0-17%	7.4%	7.2%
Emerging Markets	0%	0%	0.0%	0.0%
Total Equities	25%	10-40%	26.0%	25.0%

	Return	Volatility
40-year average	7.5%	4.9%
Last 12 months	2.1%	9.1%

Very Conservative investors will seek income with maximum capital preservation and the potential for modest capital growth, and be comfortable with small fluctuations in the value of their investments. This portfolio will invest primarily in fixed-income securities, and a small amount of equities, to generate income while providing some protection against inflation. Investors who fit this profile generally plan to hold their investment for the medium to long term.

Conservative

Asset class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0-15%	1.5%	2.0%
Fixed Income	58%	43-83%	57.5%	58.0%
Total Cash & Fixed Income	60%	45-75%	59.0%	60.0%
Canadian Equities	13%	3-23%	13.2%	12.9%
U.S. Equities	15%	5-25%	15.3%	14.9%
International Equities	12%	2-22%	12.5%	12.2%
Emerging Markets	0%	0%	0.0%	0.0%
Total Equities	40%	25-55%	41.0%	40.0%

	Return	Volatility
40-year average	7.9%	6.1%
Last 12 months	3.1%	10.2%

Conservative investors will pursue modest income and capital growth with reasonable capital preservation, and be comfortable with moderate fluctuations in the value of their investments. The portfolio will invest primarily in fixed-income securities, with some equities, to achieve more consistent performance and provide a reasonable amount of safety. The profile is suitable for investors who plan to hold their investment over the medium to long term.

Balanced

Asset class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0-15%	1.5%	2.0%
Fixed Income	38%	23-53%	37.5%	38.0%
Total Cash & Fixed Income	40%	25-55%	39.0%	40.0%
Canadian Equities	15%	5-25%	15.1%	14.8%
U.S. Equities	25%	15-35%	25.3%	24.8%
International Equities	15%	5-25%	15.5%	15.5%
Emerging Markets	5%	0-15%	5.1%	4.9%
Total Equities	60%	45-75%	61.0%	60.0%

	Return	Volatility
40-year average	8.3%	7.7%
Last 12 months	4.2%	11.6%

The **Balanced** portfolio is appropriate for investors seeking balance between long-term capital growth and capital preservation, with a secondary focus on modest income, and who are comfortable with moderate fluctuations in the value of their investments. More than half the portfolio will usually be invested in a diversified mix of Canadian, U.S. and global equities. This profile is suitable for investors who plan to hold their investment for the medium to long term.

Growth

Asset class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0-15%	1.5%	2.0%
Fixed Income	23%	8-38%	22.5%	23.0%
Total Cash & Fixed Income	25%	10-40%	24.0%	25.0%
Canadian Equities	18%	8-28%	18.0%	17.8%
U.S. Equities	30%	20-40%	30.2%	29.8%
International Equities	19%	9-29%	19.6%	19.6%
Emerging Markets	8%	0-18%	8.2%	7.8%
Total Equities	75%	60-90%	76.0%	75.0%

	Return	Volatility
40-year average	8.5%	9.5%
Last 12 months	4.8%	12.8%

Investors who fit the **Growth** profile will seek long-term growth over capital preservation and regular income, and be comfortable with considerable fluctuations in the value of their investments. This portfolio primarily holds a diversified mix of Canadian, U.S. and global equities and is suitable for investors who plan to invest for the long term.

Aggressive Growth

Asset class	Bench-mark	Range	Last quarter	Current recommendation
Cash & Cash Equivalents	2%	0-15%	1.0%	2.0%
Fixed Income	0%	0-15%	0.0%	0.0%
Total Cash & Fixed Income	2%	0-17%	1.0%	2.0%
Canadian Equities	29%	19-39%	29.1%	28.8%
U.S. Equities	38%	28-48%	38.1%	37.8%
International Equities	20%	10-30%	20.6%	20.7%
Emerging Markets	11%	1-21%	11.2%	10.7%
Total Equities	98%	83-100%	99.0%	98.0%

	Return	Volatility
40-year average	8.8%	12.0%
Last 12 months	5.2%	14.9%

Aggressive Growth investors seek maximum long-term growth over capital preservation and regular income, and are comfortable with significant fluctuations in the value of their investments. The portfolio is almost entirely invested in stocks and emphasizes exposure to global equities. This investment profile is suitable only for investors with a high risk tolerance and who plan to hold their investments for the long term.

Capital markets performance

Milos Vukovic, MBA, CFA
V.P. & Head of Investment Policy
RBC Global Asset Management Inc.

Aaron Ma, MBA, CFA
Senior Analyst, Investment Strategy
RBC Global Asset Management Inc.

The U.S. dollar depreciated against the British pound, euro and Canadian dollar but appreciated against the Japanese yen in the three months ended May 31, 2023. The greenback was challenged by its lofty valuation, rising fiscal and current-account deficits, a slowing economy and an expected narrowing of the U.S. interest-rate advantage. The U.S. dollar's 3.3% decline against sterling was the largest versus a major currency, as the pound was supported by the Bank of England rate hikes to combat extremely high inflation in the U.K. The greenback depreciated 1.0% against the euro as falling energy prices helped boost the European economy and investors expect that the European Central Bank will be more aggressive than the U.S. Federal Reserve (Fed) in raising interest rates. The U.S. dollar also weakened slightly against the loonie, by 0.5%, as traders weighed the resilience of the Canadian economy, the potential for further rate hikes, immigration tailwinds and strong commodity prices against heavily indebted households and a vulnerable housing market. The greenback did appreciate 2.3% against the yen, as Japanese interest rates continue to be held low by the Bank of Japan. Over the one-year period, the U.S. dollar appreciated 8.2% against the yen, 7.3% against the Canadian dollar, 1.3% against the British pound, and 0.4% against the euro.

Most major bond markets were flat to modestly higher in the latest quarter in U.S.-dollar terms. Bond yields declined in many regions as the tumult among U.S. regional banks unfolded, still-high inflation came down slowly and recession fears persisted with moderating economic data. All these factors led investors to believe that major central banks are unlikely to raise policy rates much further in the short term, pushing yields lower. The yield on the U.S. 10-year Treasury bond fell 28 basis points to 3.64% in the quarter. U.S. bonds outperformed with a 2.0% gain for the Barclays Capital Aggregate Bond Index and the FTSE US Government Bond Index. The FTSE World Government Bond Index was close behind with a 1.9% return, while the FTSE European Government Bond Index and FTSE Japanese Government Bond Index were flat. Over the 12-month period, all major fixed-income benchmarks recorded losses. The FTSE European Government Bond Index's 12.3% plunge was the worst in U.S.-dollar terms, while the Barclays Capital Aggregate Bond Index was best with just a 2.1% decline.

Global equity markets continued their grind higher from the fall-2022 lows, helped by gradually decelerating inflation, surprisingly resilient economic activity and developed-market central banks that appear poised to stop raising interest rates soon. The promise of artificial intelligence (AI) also proved to be a catalyst for stocks, particularly for large-cap technology issues perceived to be the biggest winners from the proliferation of AI. Performance varied widely between regions, with the MSCI Japan Index's 6.3% return

in U.S.-dollar terms leading the pack as Japanese stocks benefitted from a strong domestic economy, the return of inflation to targeted levels and a weaker yen. The MSCI UK Index lagged with a 2.2% loss as expectations of more interest-rate hikes threaten to further slow the U.K.'s already lacklustre economic growth. Over the one-year period, the performance ranged from a loss of 8.5% for the MSCI Emerging Markets Index to a 10.7% gain for the MSCI France Index, all in U.S.-dollar terms.

Equity performance also varied widely across market caps, styles and sectors because of the massive outperformance of U.S. mega-cap technology stocks. U.S. large-cap stocks outshone their smaller-cap counterparts during the quarter, with the large-cap S&P 500 Index's 5.7% return outpacing the mid-cap S&P 400 and small-cap S&P 600 by 12.8 and 15.2 percentage points, respectively. Across styles, the AI investment theme and lower long-term interest rates propelled the Russell 3000 Growth Index to a 11.8% return compared with a 3.4% loss for the Russell 3000 Value Index. The Information Technology sector was the best performer in the quarter with a 18.9% gain. The Financials sector had the biggest decline at 9.1% as concerns grew about the soundness of the financial system following the collapse of Silicon Valley Bank. Over a one-year time frame, the Information Technology sector led with a 16.1% return, while Real Estate lagged with a 16.2% loss.

Exchange rates
Periods ending May 31, 2023

	Current USD	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)
USD–CAD	1.3575	(0.51)	0.26	7.32	(0.47)	0.92
USD–EUR	0.9355	(1.05)	0.15	0.44	1.27	1.81
USD–GBP	0.8039	(3.30)	(2.81)	1.30	(0.24)	1.34
USD–JPY	139.3250	2.33	6.16	8.23	8.91	5.07

Note: all changes above are expressed in US dollar terms

Canada fixed income markets
Periods ending May 31, 2023

	USD					CAD		
Fixed income markets: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
FTSE Canada Univ. Bond Index TR	1.94	2.20	(6.03)	(2.76)	(0.16)	1.42	0.86	(3.22)

U.S. fixed income markets
Periods ending May 31, 2023

	USD					CAD		
Fixed income markets: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
FTSE U.S. Government TR	1.96	2.49	(2.20)	(3.70)	0.81	1.43	4.97	(4.16)
BBg U.S. Agg. Bond Index TR[1]	2.04	2.46	(2.14)	(3.65)	0.81	1.51	5.03	(4.10)

Global fixed income markets
Periods ending May 31, 2023

	USD					CAD		
Fixed income markets: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
FTSE WGBI TR	1.92	1.98	(4.43)	(5.19)	(1.34)	1.40	2.57	(5.64)
FTSE European Government TR	(0.24)	(2.18)	(12.31)	(9.09)	(4.70)	(0.75)	(9.18)	(10.59)
FTSE Japanese Government TR	(0.01)	(2.43)	(10.17)	(10.07)	(5.63)	(0.52)	(7.06)	(11.58)

Canada equity markets
Periods ending May 31, 2023

	USD					CAD		
Equity markets: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
S&P/TSX Composite	(1.89)	2.00	(9.12)	12.63	6.29	(2.40)	(2.46)	12.10
S&P/TSX 60	(1.91)	1.81	(9.56)	12.68	6.80	(2.42)	(2.94)	12.15
S&P/TSX Small Cap	(5.09)	(1.17)	(15.52)	15.11	2.29	(5.58)	(9.33)	14.57

U.S. equity markets
Periods ending May 31, 2023

	USD					CAD		
Equity markets: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
S&P 500 TR	5.75	9.65	2.92	12.92	11.01	5.20	10.46	12.39
S&P 400 TR	(7.03)	(0.29)	(2.63)	12.58	6.00	(7.56)	4.45	12.03
S&P 600 TR	(9.41)	(2.03)	(7.26)	13.57	3.80	(9.88)	(5.36)	11.15
Russell 3000 Value TR	(3.36)	(1.63)	(4.96)	11.76	6.45	(3.91)	1.95	11.21
Russell 3000 Growth TR	11.77	19.77	9.15	12.32	13.09	11.14	17.09	11.77
NASDAQ Composite Index TR	13.19	24.06	8.04	11.74	12.69	12.60	15.95	11.21

Note: All rates of return presented for periods longer than 1 year are annualized. [1] Bloomberg U.S. Agg. Bond Index TR. Source: RBC GAM

Global equity markets
Periods ending May 31, 2023

	USD					CAD		
Equity markets: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
MSCI World TR *	3.85	8.52	2.07	10.96	7.79	3.69	9.69	10.35
MSCI EAFE TR *	0.91	6.81	3.06	8.53	3.21	0.75	10.76	7.93
MSCI Europe TR *	0.37	8.40	4.68	10.42	4.07	0.21	12.49	9.81
MSCI Pacific TR *	2.09	4.07	0.37	5.36	1.71	1.93	7.87	4.78
MSCI UK TR *	(2.22)	4.41	(0.40)	11.70	1.86	(2.37)	7.04	11.07
MSCI France TR *	(0.11)	11.00	10.74	14.66	5.40	(0.27)	19.01	14.03
MSCI Germany TR *	1.52	11.96	5.47	5.51	0.25	1.36	13.35	4.92
MSCI Japan TR *	6.29	8.56	4.53	4.29	1.78	6.12	12.34	3.71
MSCI Emerging Markets TR *	0.15	1.05	(8.49)	3.47	(0.67)	(0.01)	(1.65)	2.90

Global equity sectors
Periods ending May 31, 2023

	USD					CAD		
Sector: Total return	3 months (%)	YTD (%)	1 year (%)	3 years (%)	5 years (%)	3 months (%)	1 year (%)	3 years (%)
Energy TR *	(8.13)	(9.76)	(9.68)	24.84	2.42	(8.27)	(2.93)	24.14
Materials TR *	(6.19)	(2.01)	(10.48)	10.98	4.89	(6.34)	(3.79)	10.36
Industrials TR *	(0.16)	4.78	6.48	11.78	5.54	(0.32)	14.43	11.16
Consumer discretionary TR *	3.98	16.56	2.54	8.94	7.40	3.81	10.19	8.33
Consumer staples TR *	1.91	0.59	1.07	7.11	6.76	1.75	8.61	6.51
Health care TR *	2.49	(2.33)	(0.25)	6.92	9.64	2.33	7.20	6.33
Financials TR *	(9.12)	(3.04)	(5.34)	13.13	3.36	(9.26)	1.73	12.50
Information technology TR *	18.86	30.80	16.10	16.75	17.17	18.67	24.77	16.10
Communication services TR*	16.35	26.02	1.79	4.64	7.11	16.17	9.39	4.06
Utilities TR *	1.98	(2.49)	(7.73)	4.89	6.28	1.82	(0.84)	4.30
Real estate TR *	(5.66)	(2.82)	(16.24)	1.86	0.93	(5.81)	(9.99)	1.30

* Net of taxes. Note: all rates of return presented for periods longer than 1 year are annualized. Source: Bloomberg/MSCI

Economic outlook

Economic stress mounts

Eric Lascelles
Chief Economist
RBC Global Asset Management Inc.

The global economy continues to expand, but with waning momentum. Higher interest rates are now contributing to significant stress for U.S. banks, with lending standards tightening markedly across much of the developed world. The ensuing credit chill is just the latest indicator pointing to a recession (Exhibit 1).

Inflation is continuing its admittedly twitchy retreat and can likely descend further. Businesses have much more benign pricing intentions than at the inflation peak (Exhibit 2). Whether inflation can decline below 3% will be determined in large part by whether a recession actually arrives, cooling the labour market and thus service-sector inflation.

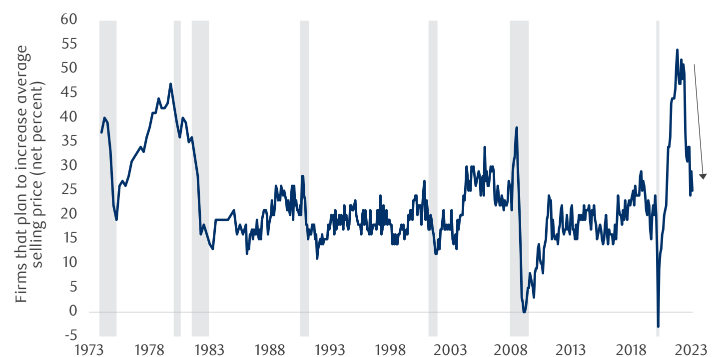
In our base-case scenario, North American and European central banks are approaching the finish line. But if a recession doesn't come, central banks would likely have to continue raising interest rates.

Exhibit 1: Recession signals point mostly to "yes" or "likely": we estimate 80% chance over the next year

Signal	Indicating U.S. recession?
2yr-10yr curve inverts	Yes
3m-10yr curve inverts	Yes
Fed short-term curve inverts	Yes
Inflation spike	Yes
Duncan leading indicator falls	Yes
Financial conditions tighten	Yes
Monetary tightening cycle	Likely
Google "recession" news trend	Likely
RBC GAM recession model	Maybe
Oil price spike	Maybe
Jobless claims jump	Maybe
Unemployment increase	No, but trending sideways

Note: As at 05/23/2023. Analysis for U.S. economy. Source: RBC GAM

Exhibit 2: Fraction of U.S. businesses planning to raise prices is falling precipitously



Note: As of Apr 2023. Shaded area represents recession. Source: NFIB Small Business Economic Survey, Macrobond, RBC GAM

Elsewhere, the Chinese economic recovery continues, but at a tepid pace that is unlikely to provide a full counterweight to the growth deceleration elsewhere in the world.

The stock market is expressing optimism about the latest hot new technology – artificial intelligence that can create images, videos, audio and text. Generative AI may well boost long-term productivity growth and even augment short-run business investment somewhat as businesses scramble to adopt it. But it is unlikely to fully offset the headwind coming from higher interest rates in the near term.

It is important to flag the high level of economic uncertainty right now in the short run given a variety of inflation and growth scenarios, but also over the long run given considerable uncertainty over where inflation and interest rates eventually settle, how geopolitical risks resolve, and how profoundly new technologies reshape the economic landscape.

Given these challenges, our tactical asset allocation became incrementally more cautious over the past quarter. It is now positioned to capture the higher returns available from cash and fixed income, with an eye toward more fully engaging with equities at more attractive valuations should a recession transpire.

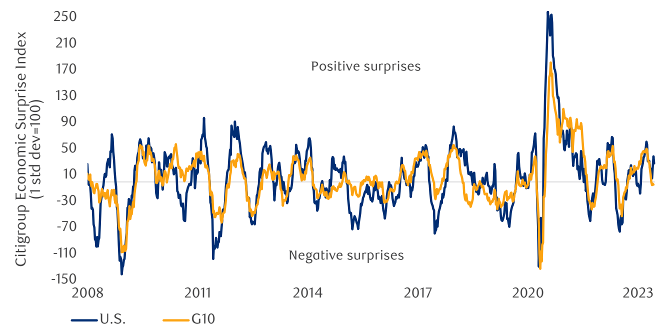
Economy hanging on

In most regions, economic activity continued to expand during the first half of 2023, running ahead of expectations albeit at a decelerating pace (Exhibit 3).

While the labour market has managed further robust job gains, we observe hints that it is softening. The rate of hiring is less fevered than it was six months to a year ago. Meanwhile, temporary employment – a classic leading indicator for the labour market – is turning lower (Exhibit 4), job openings are falling, people are quitting less and mass layoffs are on the rise.

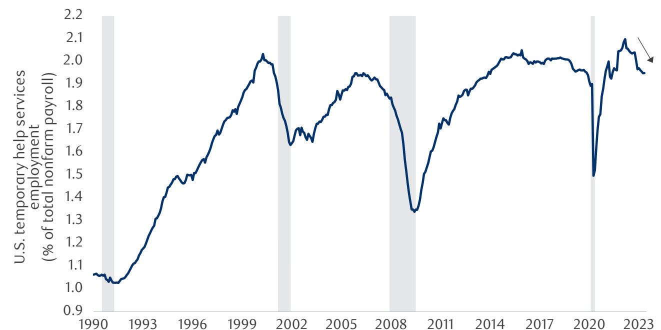
Observing the accumulation of economic weakness requires less digging elsewhere. Business expectations are quite poor, as reflected in our composite index for the U.S. (Exhibit 5). Manufacturers are warning of waning demand and inventories appear set to contract. Global trade is now beginning to shrink (Exhibit 6), presumably for a mix of cyclical reasons paired with geopolitical frictions. Consumers

Exhibit 3: Global economic surprises have been running ahead of expectations



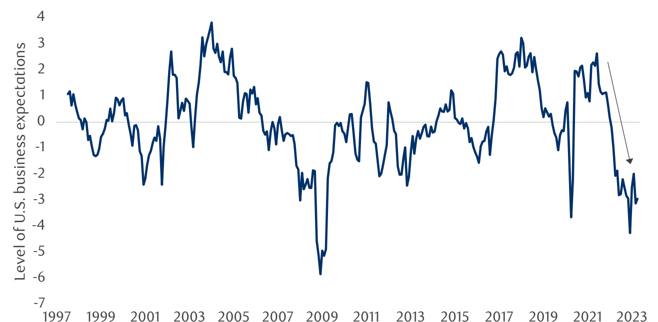
Note: As of 06/09/2023. Source: Citigroup, Bloomberg, RBC GAM

Exhibit 4: A decline in U.S. temporary employment usually leads recession



Note: As of May 2023. Shaded area represents recession. Source: BLS, Macrobond, RBC GAM

Exhibit 5 : U.S. business expectations remain grim



Note: As of Apr 2023. Principal component analysis using NFIB optimism and business conditions outlook, ISM Manufacturing and Services new orders, and The Conference Board CEO expectations for economy. Source: The Conference Board, ISM, NFIB, Macrobond, RBC GAM

have continued to spend but are increasingly having to lean on credit cards to do so – an unsustainable proposition (Exhibit 7).

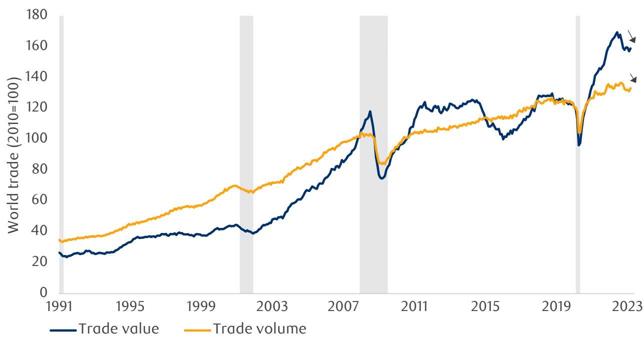
With large fiscal deficits still uncharacteristically in place in many countries despite several years of economic growth and tight labour markets (Exhibit 8), some fiscal austerity and thus economic drag is likely over the next few years. The recent U.S. debt-ceiling resolution sends the U.S. down this path with restricted federal spending growth over the next two years.

Interest rate stress

After a characteristic lag, tighter monetary policy is beginning to impede economic growth. The combination of more expensive borrowing costs, diminished risk appetite and now banking-sector stress suggests economic weakness ahead.

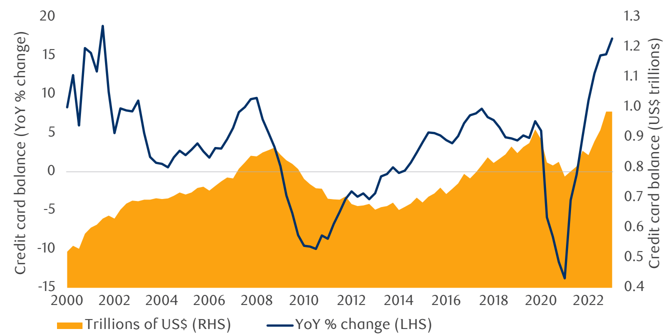
Something usually breaks when interest rates rise significantly. There is inevitably some party or sector that borrowed too much during the prior low-interest-rate regime or that suffered financial-market losses as interest rates rose. This cycle, regional U.S. banks have come to the fore. A few have failed and several others remain distressed due to a combination of bond-market losses and deposit withdrawals. The emergency lending facility created by the U.S. Federal Reserve remains in heavy demand (Exhibit 9).

Exhibit 6: Global trade fell in both nominal and real terms



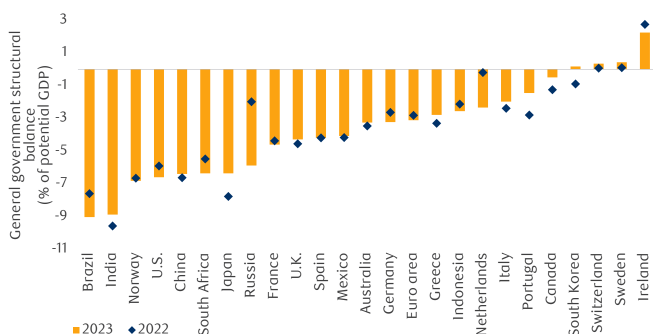
Note: As of Mar 2023. Shaded area represents U.S. recession. Source: CPB Netherlands Bureau for Economic Policy Analysis, Macrobond, RBC GAM

Exhibit 7: U.S. consumers leaning on credit cards



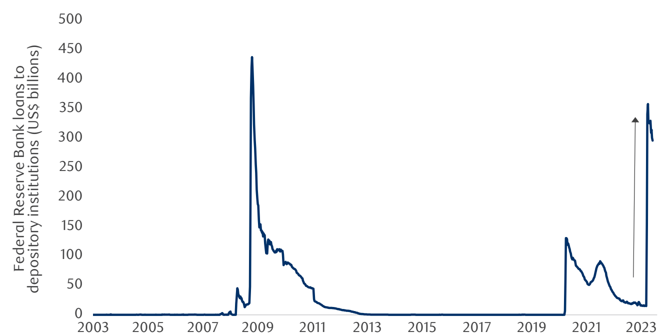
Note: As of Q1 2023. Source: Federal Reserve Bank of New York, Macrobond, RBC GAM

Exhibit 8: Significant structural fiscal deficits persist



Note: IMF projections for year 2023. Source: IMF WEO, April 2023, Macrobond, RBC GAM

Exhibit 9: Emergency lending to banks by Fed soared amid latest bank failures



Note: As of the week ending 06/01/2023. Source: Federal Reserve Bank, Macrobond, RBC GAM

Lending standards were already tightening sharply in a number of markets before this banking stress arose in March and have continued to tighten since, most prominently in the U.S. (Exhibit 10). The degree to which standards have tightened is now consistent with a recession. Accordingly, the level of U.S. bank loans outstanding is starting to contract (Exhibit 11).

Larger and smaller U.S. banks are less adversely affected by the turmoil than the mid-sized regional banks at the epicentre of the stress. Furthermore, the situation – while possessing some similarities to the U.S. savings and loan crisis of the 1980s – appears on the whole to be less severe. U.S. commercial real estate faces challenges given its reliance on the mid-sized banks for loans, the cash-flow impact of rising interest rates and the shift to working from home. It is not unreasonable to imagine that it will be several years before U.S. regional banks have recovered lost deposits, restored their balance sheets and adjusted to any regulatory tightening. Loans may be harder to secure during this time.

In the coming years, it would not be surprising if other financial problems surface somewhere in the world due to excessive leverage and/or fixed-income losses.

Recession predictions

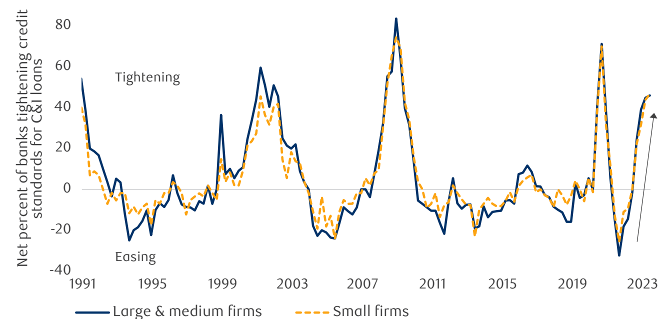
Given evidence of a wobbling economy plus mounting consequences from the sharp increase in interest rates over the past 18 months, we continue to anticipate a developed-world recession within the next few quarters.

The majority of recession heuristics in our recession scorecard point in this direction (refer back to Exhibit 1). A yield-curve based recession model for the U.S. argues the likelihood has increased even further over the past quarter (Exhibit 12).

Our business-cycle scorecard assesses vulnerability to an economic downturn by comparing present conditions to historical patterns. This reveals an "end of cycle" diagnosis, consistent with a recession arriving fairly soon (Exhibit 13).

Synthesizing these different insights, we now believe the odds of a developed-world recession are in the realm of 80%, up from 70% a quarter ago due to the additional complication of banking-sector stress.

Exhibit 10: U.S. business-lending standards tightening

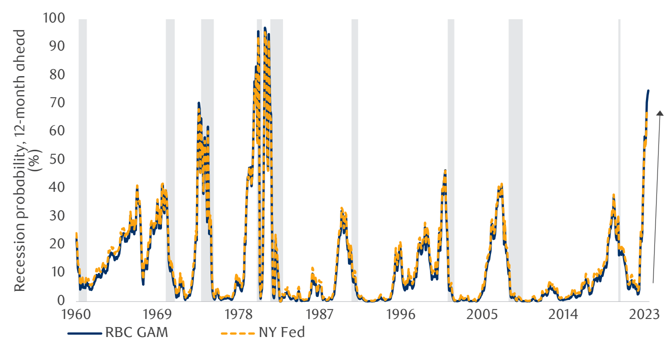


Note: April 2023 Senior Loan Officer Opinion Survey on Bank Lending Practices. Source: Federal Reserve Board, Macrobond, RBC GAM

Exhibit 11: Ebbing U.S. credit growth

Note: As of the week ending 05/24/2023. Source: Federal Reserve, Macrobond, RBC GAM

Exhibit 12: Yield-curve-based U.S. recession risk skyrockets



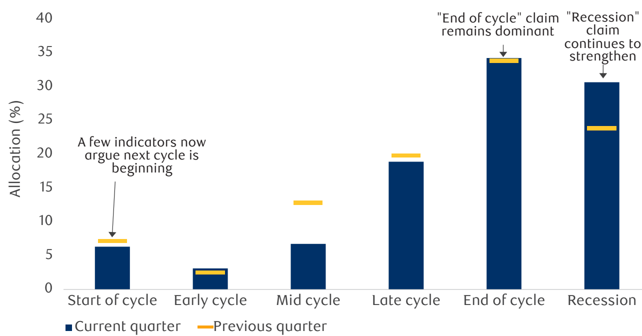
Note: As of Apr 2023 for NY Fed model, RBC GAM estimates as of 06/02/2023. Probabilities of a recession twelve months ahead estimated using the difference between 10-year and 3-month Treasury yields. Shaded area represents recession. Source: Federal Reserve Bank of New York, Haver Analytics, RBC GAM

Germany has already descended into a recession, having notched two consecutive quarters of contracting output (Exhibit 14). The country is nevertheless still vulnerable to further decline over the coming quarters as the rest of the developed world succumbs to high interest rates and overheating-related headwinds.

We do not expect a particularly deep recession (Exhibit 15). It should be of a mild to middling depth, in favourable contrast to the crisis-induced declines of 2020 and 2008-2009. While the economy today is likely overheating and thus requires some cooling (Exhibit 16), the mismatch between supply and demand is not extreme, largely because many people who initially dropped out of the labour force during the pandemic have returned (Exhibit 17). We also believe the recession can be fairly short – just two or three quarters in length.

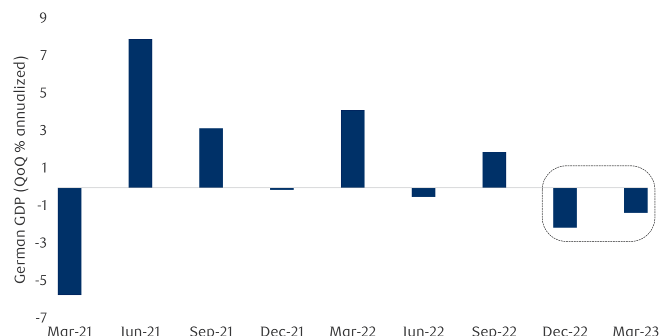
Recessions are never pleasant affairs, and nor are they something to actively pursue. Nevertheless, a recession at this time could bring several silver linings:

Exhibit 13: U.S. business-cycle score



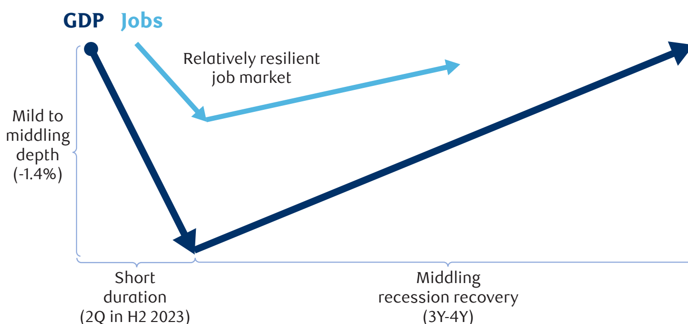
Note: As at 04/28/2023. Calculated via scorecard technique by RBC GAM. Source: RBC GAM

Exhibit 14: Germany entered a technical recession



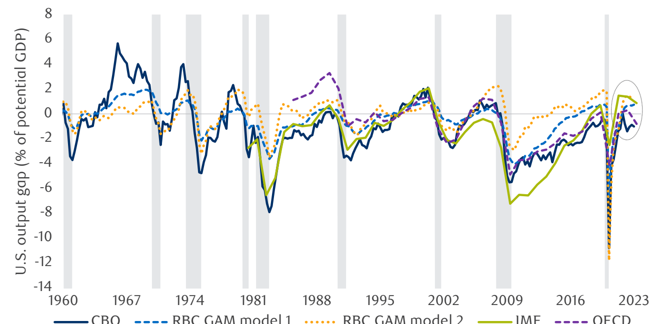
Note: As of Q1 2023. Source: Statistisches Bundesamt, Macrobond, RBC GAM

Exhibit 15: Recession scenario assumptions – we are below the consensus



Note: As at 05/26/2023. Source: RBC GAM

Exhibit 16: U.S. economy is running above full capacity



Note: Congressional Budget Office (CBO), GAM model 1 and 2 estimates as of Q1 2023, IMF estimates as of Apr 2023, OECD estimates as of Nov 2022. GAM model 1 estimated using CBO natural rate of unemployment; GAM model 2 estimated using HP filter trends. Shaded area represents recession. Source: Macrobond, RBC GAM

- It should help to reduce stubborn service-sector inflation, which is highly correlated with the state of the economy.
- The housing market may become more affordable – a positive development from a societal standpoint.
- It should initiate a reversal from high interest rates.
- It may provide an attractive entry point into risk assets for savvy investors.
- A recession should then be followed by several years of robust economic growth as a recovery blooms.

Conversely, exploring a scenario where a recession does not occur, one might imagine the economy muscling through headwinds, perhaps growing more slowly but not quite lapsing into a contraction. The economy has been sufficiently ebullient in its behaviour over the past three years that further surprises in this direction cannot be completely ruled out. Whether inflation would be able to fully reverse in this scenario is an open question, raising the possibility of more monetary tightening later, and perhaps even a recession that is averted in the short run but then arrives later.

Housing rebound?

Surprisingly, housing markets in several countries including the U.S. and Canada have begun to revive during the spring (Exhibit 18).

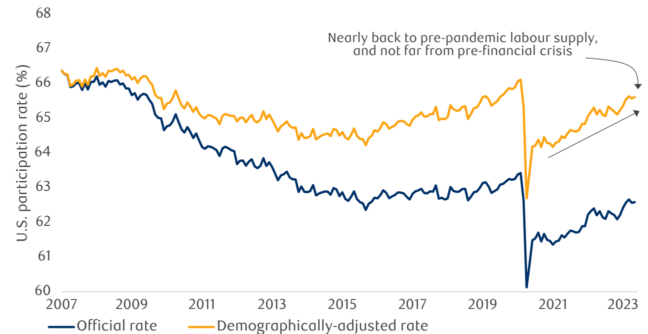
If this uptick were to persist, it would call into question the central tenets of our economic forecast: the onset of a recession, likely sometime this year, and retreating inflation. Housing markets are usually key contributors to recessions, not contrarian indicators. With regard to inflation, shelter costs are the biggest single component of the price basket.

The bull case is that the initial shock of lower home prices and rising interest rates has worn off, wage growth is robust, unemployment is low, housing supply is constrained and, especially in Canada, housing demand is surging on the back of strong immigration. It is thus conceivable that the housing bust is over (Exhibit 19).

However, we find the bear case arguments more persuasive.

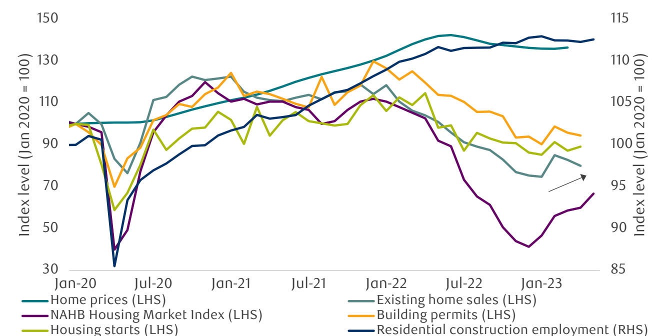
There is little historical precedent for housing busts that last just one year. The median is six years, and the historical minimum is 1.3 years.

Exhibit 17: U.S. participation rate mostly recovered



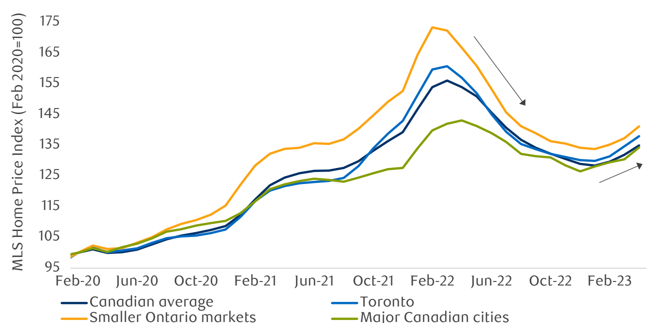
Note: As of May 2023. Demographically-adjusted rate assumes the same population composition since January 2007. Source: Haver Analytics, RBC GAM

Exhibit 18: U.S. housing metrics reveal tentative sign of revival



Note: Case-Shiller Home Price Index as of Mar 2023; building permits, housing starts, and existing home sales as of Apr 2023; employment and NAHB HMI as of May 2023. Source: BLS, Census Bureau, NAHB, NAR, S&P, Macrobond, RBC GAM

Exhibit 19: Canadian home prices tentatively reviving



Note: As of Apr 2023. Source: CREA, Macrobond, RBC GAM

The recent revival may simply be seasonal in nature: the spring tends to see a surge in the housing market, followed by a cooling in subsequent seasons.

If a recession arrives as we forecast, its deleterious effect on wages and employment should weigh on housing.

The supply of homes listed for sale is unnaturally low right now as homeowners who might normally have been selling balk at the diminished value of their property. The backlog of listings should eventually materialize as life events such as marriages, divorces, births and retirements accumulate.

But the biggest reason it would be truly unusual for the housing market to begin a new bull phase is that affordability remains quite poor. New housing booms are usually predicated on attractive valuations, whereas the opposite situation exists today. This is especially true in Canada, whereas conditions in the U.S. are not quite so extreme. Canada's standard five-year mortgage term means that many existing homeowners will continue rolling into higher mortgage rates for another three-plus years, exerting a persistent drag (Exhibit 20).

As such, while the sharpest period of housing-market weakness may be complete, we assume it will be followed by a multi-year malaise rather than an immediate revival. In turn, this means that a recession and declining inflation both remain plausible in the near term.

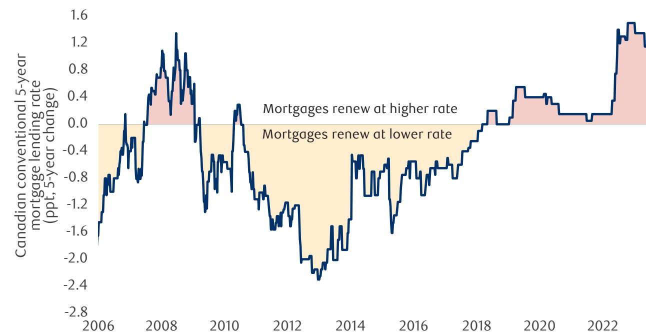
Updated growth forecast

Our base-case forecast is for a recession in the second half of 2023 followed by a recovery in 2024 and beyond. The forecasts have been slightly upgraded from a quarter ago, but are still below the consensus, reflecting the greater probability we assign to a recession than the market (refer to Exhibit 21 and Exhibit 22).

Admittedly, the new forecasts hardly look as though they predict any of that. For example, our annual growth forecast for the U.S. is 1.0% in 2023 and 0.6% in 2024. And yet we forecast a recession for 2023, and a recovery for 2024. How is this possible?

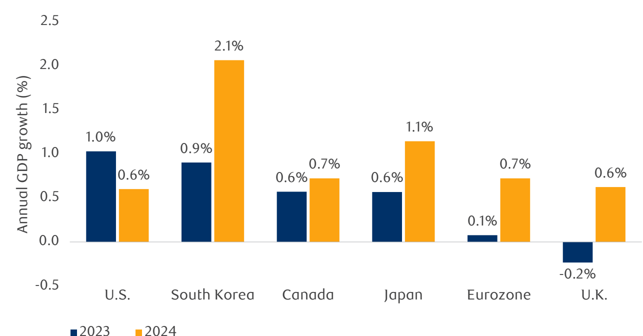
In essence, the amount of anticipated economic output generated across the entirety of 2023 is actually fairly good because the year manages several quarters of decent output

Exhibit 20: Canadian mortgage rates are sharply higher for renewers



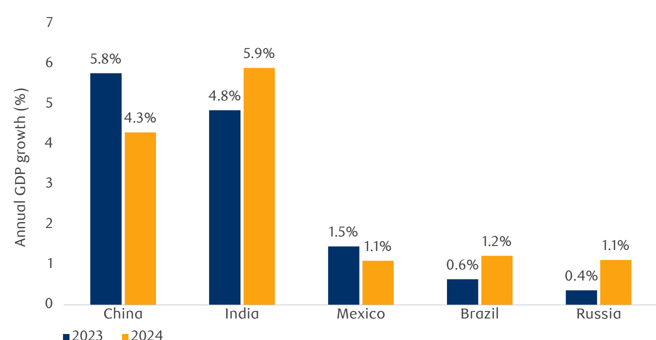
Note: As of 05/31/2023. Source: Bank of Canada, Macrobond, RBC GAM

Exhibit 21: RBC GAM GDP forecast for developed markets



Note: As of 04/28/2023. Source: RBC GAM

Exhibit 22: RBC GAM GDP forecast for emerging markets



Note: As of 04/28/2023. Source: RBC GAM

(and growth) before succumbing to a recession late in the year. Then, in 2024, the economy is growing but starts the year much smaller than normal, and so must work its way higher for some time before respectable output levels are achieved. When 2024 is compared to 2023, the growth in 2024 is thus quite underwhelming.

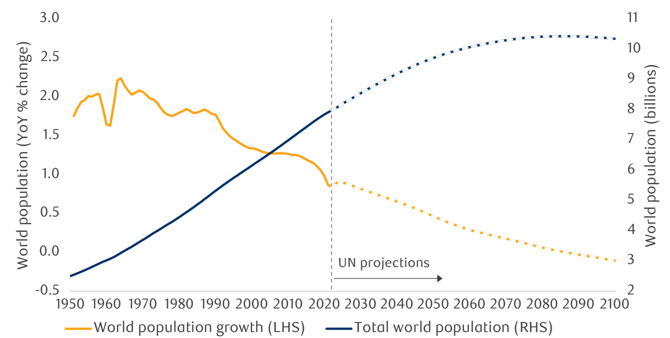
Turning to the long-run growth outlook, we continue to anticipate a serious drag from diminishing population growth, which the United Nations (UN) now predicts will peak in the 2080s at 10.4 billion people (Exhibit 23). We believe the true peak may actually be sooner and lower, based on the rapid clip at which fertility rates have recently undershot UN assumptions, and given the implausibility of developing-world fertility rates eventually stabilizing at a convenient two children per woman when developed-world fertility rates showed no such sticky inclination when they breached that threshold years ago.

Providing a partial but ultimately incomplete offset to the dampening effect of demographics on long-term economic growth, we continue to anticipate faster productivity growth ahead. This is partially a bet that the unusually slow productivity growth of the 2010s was an outlier, and partially an observation that China and its 1.4 billion people have now reached the technological frontier, adding significantly to the pool of workers labouring to invent brand new technologies for the benefit of humankind. Of perhaps greatest relevance, our optimism is an endorsement of the prospective productivity boost from exciting new technologies including in the fields of artificial intelligence, health, green tech, virtual reality, the internet of things, 3-D printing, distributed ledgers and quantum computing.

Inflation ebbing

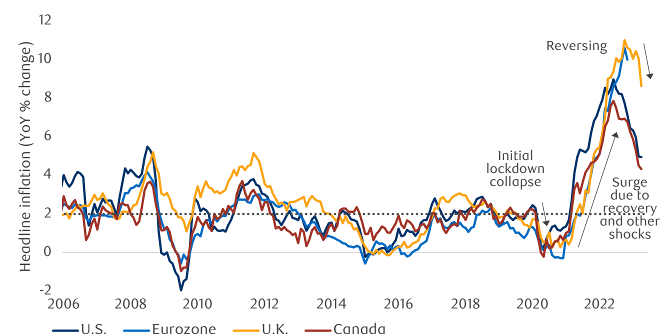
Inflation continues to fall from the highest levels in decades but remains well above normal (Exhibit 24). The four key original drivers of inflation – a commodity shock, supply-chain problems, excessive monetary stimulus and excessive fiscal stimulus – have all turned, supporting the decline (Exhibit 25).

Exhibit 23: World population is expected to peak at 10.4 billion as growth slows



Source: UN World Population Prospects 2022, Macrobond, RBC GAM

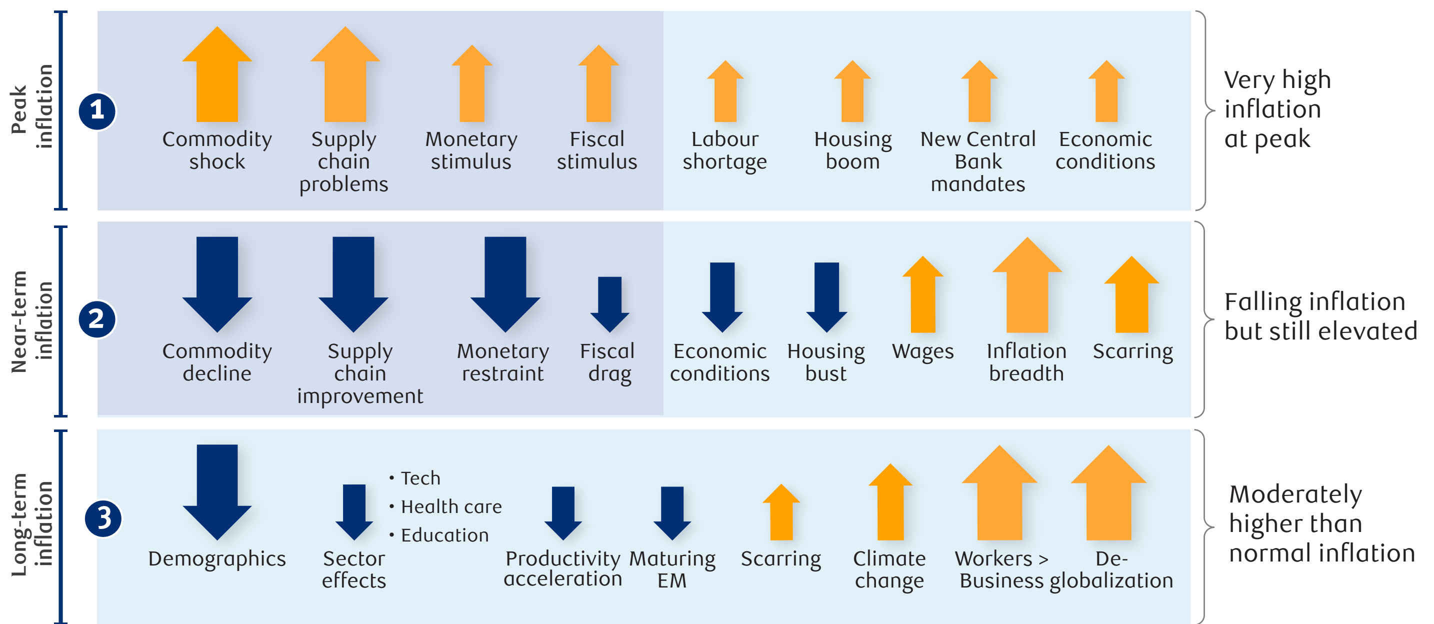
Exhibit 24: Inflation is declining in major economies, but still high



Note: Canada, U.K., and U.S. as of Apr 2023, Eurozone as of May 2023.
Source: Bureau of Labor Statistics, Office for National Statistics, Statistics Canada, Statistical Office of the European Communities, Haver Analytics, RBC GAM

> "Money is certainly no longer sloshing around as freely as it was a few years ago, driven in significant part by monetary policy and in part because there is now a subtle fiscal drag in place."

Exhibit 25: Inflation was very high in 2022, will significantly normalize across 2023, then settle moderately above 2% over long run

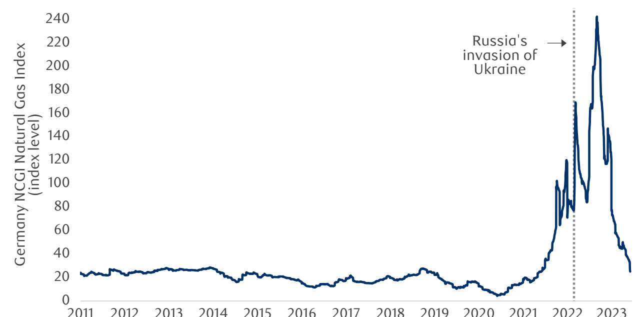


Note: As at 04/28/2023. Source: RBC GAM

We believe inflation can continue to decline. Of the aforementioned key drivers, commodity prices are well off earlier peaks, especially the price of natural gas in Europe (Exhibit 26). We don't go so far as to assume lower commodity prices in a recession, but at a minimum these are unlikely to surge in such an environment. Supply-chain problems have mostly resolved, notwithstanding a few stubborn holdouts such as the market for personal vehicles (Exhibit 27). Money is certainly no longer sloshing around as freely as it was a few years ago (Exhibit 28), driven in significant part by monetary policy that has pivoted from extreme stimulus to substantial restraint, and in part because there is now a subtle fiscal drag in place.

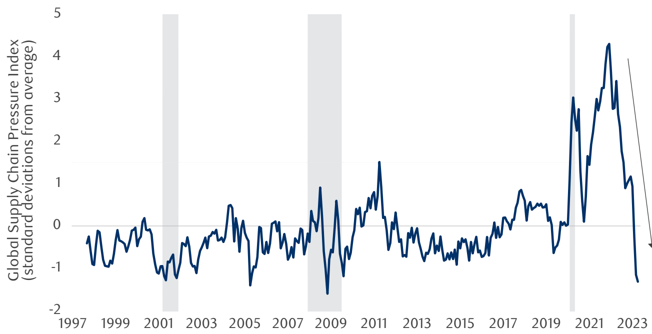
A range of other indicators also supports the waning-inflation view. It is helpful that Chinese producer prices are now in outright decline, as China remains the world's pre-eminent

Exhibit 26: Natural-gas prices have plummeted



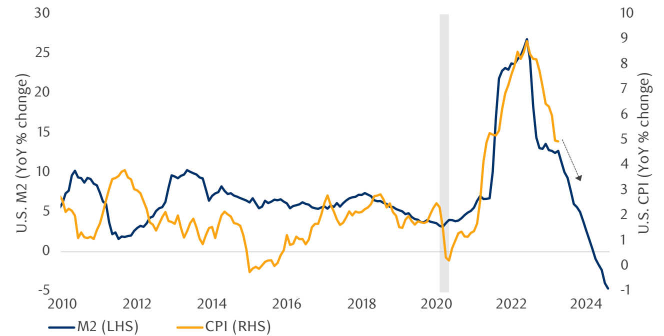
Note: As of 06/02/2023. Source: Intercontinental Exchange, Macrobond, RBC GAM

Exhibit 27: Global supply-chain pressure has fully reversed



Note: As of Apr 2023. Shaded area represents U.S. recession. Source: Gianluca Benigno, Julian di Giovanni, Jan J. J. Groen, and Adam I. Noble, "A New Barometer of Global Supply Chain Pressures," Federal Reserve Bank of New York Liberty Street Economics; Macrobond, RBC GAM

Exhibit 28: U.S. money supply collapsed, inflation is now descending

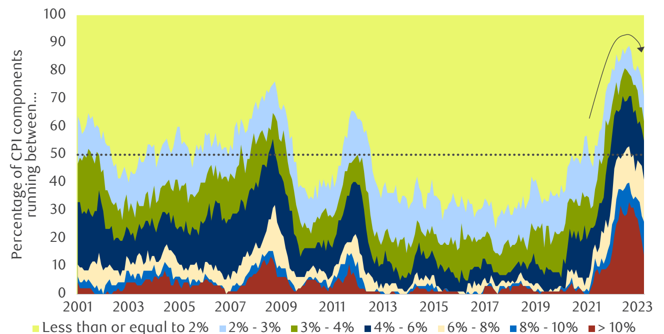


Note: As of Apr 2023. M2 year-over-year % change leads by 16 months. Shaded areas represent U.S. recessions. Source: Macrobond, RBC GAM

Exhibit 29: Producer prices in China have been declining

Note: As of Apr 2023. Shaded area represents U.S. recession. Source: CNBS, Macrobond, RBC GAM

Exhibit 30: High inflation in the U.S. is becoming much less broad

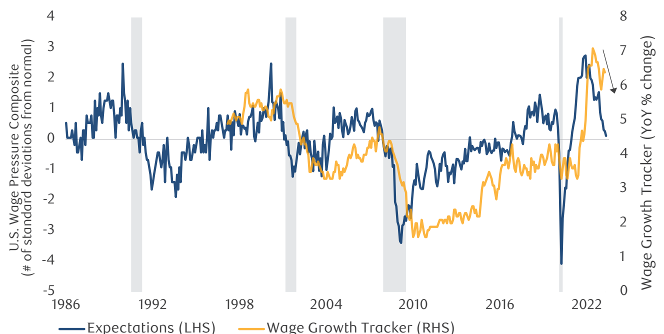


Note: As of Apr 2023. Share of CPI components with year-over-year % change falling within the ranges specified. Source: Haver Analytics, RBC GAM

manufacturer and so this deflation should bleed into consumer prices worldwide (Exhibit 29).

It is similarly heartening that companies indicate fairly normal (and substantially diminished) plans to raise their prices going forward (refer back to Exhibit 2). The breadth of inflation is also now finally narrowing, meaning that a shrinking subset of products in the consumer basket are going up quickly (Exhibit 30). Finally, wage growth, which by one measure accounts for as much as half of inflation experienced since the beginning of the pandemic, is also clearly turning lower (Exhibit 31).

Exhibit 31: Wage pressure in U.S. is easing



Note: Atlanta Fed Wage Growth Tracker as of Apr 2023, wage expectations as of May 2023. Wage Pressure Composite constructed using business intentions to raise wages. Shaded area represents recession. Source: Macrobond, RBC GAM

To be clear, many of these metrics need to continue to improve before one can talk confidently of a return to fully normal inflation. The voyage down to around 3% inflation can probably be achieved over the next several months in North America, but the remaining distance to a normal 2% reading could be considerably slower, and perhaps ultimately elusive. We now budget for long-run inflation that averages incrementally above 2%.

Perhaps the greatest barrier to declining short-term inflation is that service-sector inflation is not yet fully cooperating. Alas, the most likely requirement for lower service-sector inflation is a cooler labour market, and a recession is probably needed to achieve this aim.

Our view that inflation can continue to fall significantly without quite completely normalizing represents a below-consensus view (Exhibit 32). This is to say, we are relatively optimistic on the subject versus our peers.

Central banks peaking

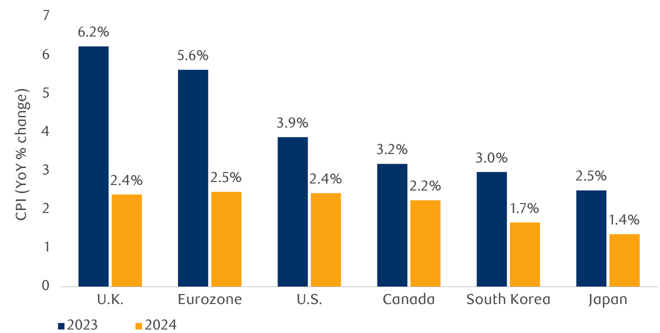
Central-bank expectations have been on a roller-coaster ride over the past quarter. Initially, the market imagined that fresh banking stress might prompt near-term interest-rate cuts. But as that banking stress failed to explode into a broader banking crisis, those expectations faded. More recently, the market has reversed, pricing in the possibility of near-term rate increases due to recent robust hiring and an uncooperative inflation print.

In our view, the main point is that policy rates, in the U.S. and across most of the world, have increased aggressively (Exhibit 33), are now approaching the finish line (Exhibit 34), and are now outright restrictive for the economy.

Most developed-world central banks have a bit more tightening to do. The near-term risks to this view tilt toward central banks raising rates a bit more than envisioned. But the scenario in which policy rates have to go significantly higher is one in which a recession fails to materialize, which prevents inflation from adequately descending and thus obliges further action. This won't be clear for some time.

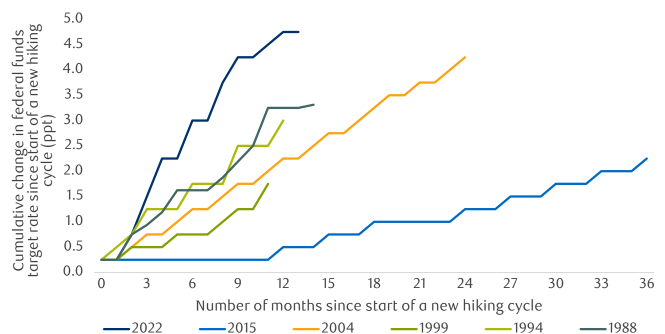
Turning to the medium run, several central banks should be in a position to start lowering rates within the next year as the economy weakens and inflation declines. Present

Exhibit 32: RBC GAM CPI forecast for developed markets



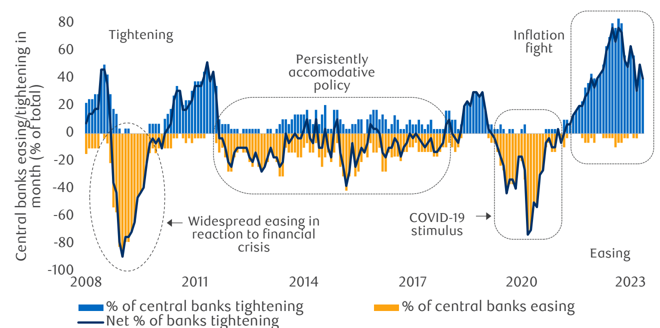
Note: As of 04/28/2023. Source: RBC GAM

Exhibit 33: Current U.S. hiking cycle is the most aggressive in decades



Note: As of May 2023. Source: Federal Reserve Board, Macrobond, RBC GAM

Exhibit 34: Fewer central banks are raising rates



Note: As of 05/31/2023. Based on policy rates for 30 countries. Source: Haver Analytics, RBC GAM

rate settings are at emergency highs to address an inflation emergency. This is not a permanent new stance. While interest rates are unlikely to venture as low as they did in 2020 or even to average what they did across the 2010s, the rate environment should still be fairly low in the years ahead given the combination of high debt, aging populations and structurally slow economic growth.

China's underwhelming recovery

China is the single biggest driver of economic growth and has been for many years (Exhibit 35) by virtue of its large economy and the brisk rate at which that economy expands.

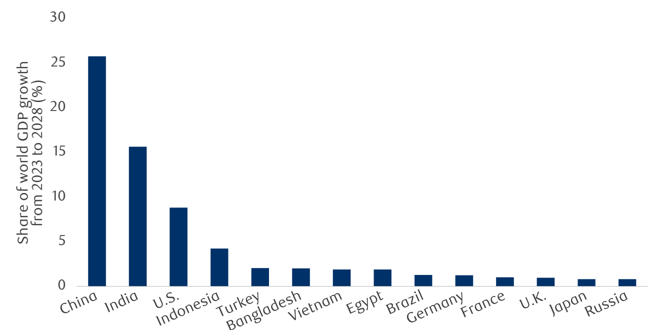
The short-term economic outlook for China is broadly positive. The country belatedly abandoned its severe pandemic restrictions at the end of 2022, allowing for an economic rebound in 2023. A handful of policies providing incrementally more support for housing and the private sector are also stirring growth (Exhibit 36).

Thus, Chinese growth can accelerate to 5%-plus in 2023, having fallen short of 3% the year before. This is a helpful if partial counterweight for the anticipated economic weakness elsewhere in the world.

However, 5% growth would have been considered a sub-par year for China before the pandemic. We remain of the view that the Chinese recovery will be no more than moderate in its clip. Contrary to popular belief, China does not actually have three years' worth of pent-up demand ready to be unleashed. The country was actually among the most open economies for the bulk of the pandemic, and the quantity of household savings accumulated during that time is not especially impressive relative to other countries. Recent activity has wobbled (Exhibit 37), though policymakers are in a position to provide further support.

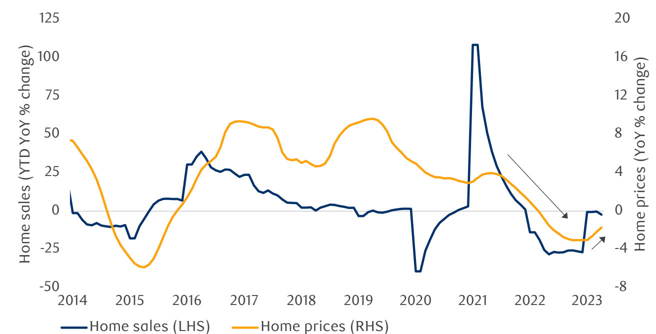
China is also now grappling with a number of structural challenges. The country's housing market is unlikely to be a central driver of the economy again, if only because the prior boom created a bubble that greatly reduced affordability and is now leading to developer bankruptcies and insolvent local governments. It would be unwise to repeat that error, especially at a time when China's population is now in outright decline – a limiter not just of economic growth but also of the appetite for additional dwellings.

Exhibit 35: China is the biggest driver of global growth



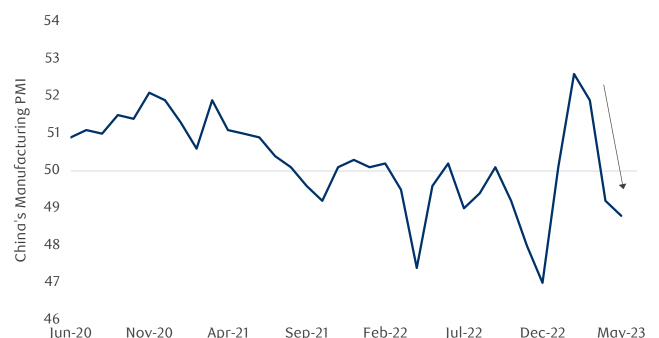
Note: Based on IMF forecast from 2023 to 2028. Source: IMF World Economic Outlook, Apr 2023, Macrobond, RBC GAM

Exhibit 36: Tentative sign of revival in China's property sector



Note: As of Apr 2023. Home price change is an average of price changes in primary and secondary markets. Source: China National Bureau of Statistics, Macrobond, RBC GAM

Exhibit 37: Chinese recovery fizzling



Note: As of May 2023. Source: China Federation of Logistics & Purchasing, Macrobond, RBC GAM

We also believe the Chinese government will reassert control over the private sector, undermining productivity growth. Finally, geopolitical frictions with the West are unlikely to be resolved in the near term, limiting China's access to some critical technologies and prompting a gradual shift in export-oriented manufacturing toward other emerging-market nations (Exhibit 38).

Accordingly, we now operate with the assumption that long-term growth in China will be merely 3% to 4% a year, quite a comedown from earlier eras of 6%, 8% and even 10% annual growth.

Canada's improved prospects

Canada's Achilles heel remains its high level of household debt and extremely poor housing affordability, which continue to highlight the possibility of significant pain as higher interest rates bite. However, we no longer believe the Canadian economy is on track for a worse recession experience than its developed-world brethren. Several other factors are now tilting Canada's way.

First, despite the aforementioned interest-rate vulnerability, the country's housing market is no longer cratering. It may not sustain the recent revival, but the sharpest period of housing decline is arguably already over, even if it is merely supplanted by a long-lasting malaise.

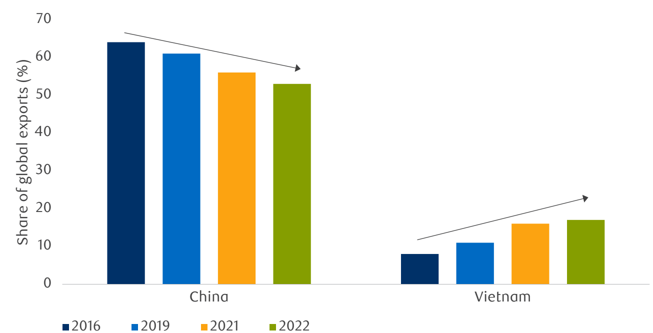
Second, by virtue of strong immigration, Canada is set for robust working-age population growth that bests most other nations and leaves the U.S. significantly behind (Exhibit 39). Canada's productivity performance has long been underwhelming (Exhibit 40), but the improved population side of the Canadian equation should close the aggregate growth gap with the U.S.

Third, Canadian financial institutions appear to have dodged the banking stress that has befallen the U.S. system.

Fourth, Canada's fiscal deficit is far smaller than most of its peers (refer back to Exhibit 8). Whereas most countries will have to endure significant fiscal austerity in the years ahead, Canada will not.

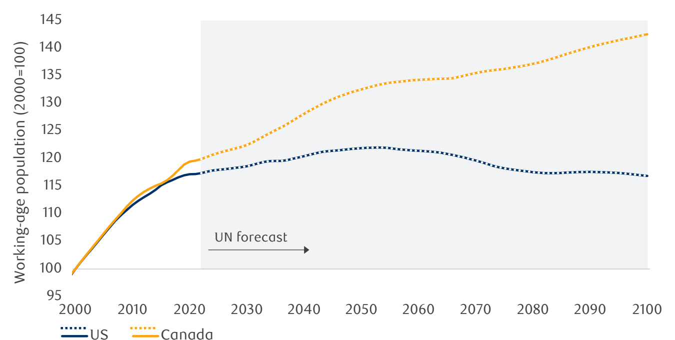
Fifth, Canada continues to enjoy a terms-of-trade benefit due to commodity prices that are still higher than normal. Many

Exhibit 38: Vietnam capturing rising share of global furniture exports



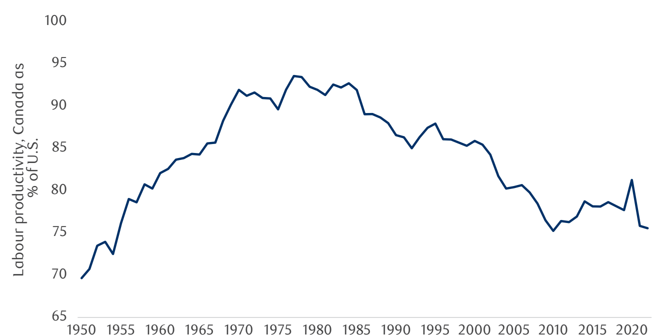
Source: Gabriel Cortes, CNBC, MDS Transmodal, RBC GAM

Exhibit 39: Canada's demographic outlook is much better than the U.S. and other developed countries



Source: UN World Populations Prospects 2022, Macrobond, RBC GAM

Exhibit 40: Canada's productivity lags the U.S.



Note: As of 2022. Labour productivity per hour worked in 2021 PPP-based U.S. dollars. Source: The Conference Board Total Economy Database™, April 2023, Macrobond, RBC GAM

Canadian exporters enjoy these elevated prices, permitting greater purchasing power on imports brought into the country with that money.

Sixth, the Canadian dollar is cheap relative to its fair value versus the U.S. dollar. We expect some of this gap to shrink over time, but it constitutes a competitive advantage so long as it persists.

Bottom line

In short, this is a period of great uncertainty, with a variety of plausible scenarios for economic growth, inflation, interest rates and a host of other macroeconomic variables.

Our base-case scenario is that a recession is coming, that inflation can significantly (but not fully) decline, and that interest rates are peaking.

Both the high level of uncertainty and our central assumptions argue for diminished investment risk-taking. As a result, our tactical asset allocation is at its most cautious stance in many years. This allows for the harvesting of the handsome interest rates presently available in bonds and cash investments, presents the possibility of capital gains on fixed-income portfolios if interest rates fall as the economy weakens and inflation falls, and provides the flexibility to return to risk assets such as equities should attractive buying opportunities present themselves in a recession scenario.

Market outlook
A lonely rally

Eric Savoie, MBA, CFA, CMT
Investment Strategist
RBC Global Asset Management Inc.

Daniel E. Chornous, CFA
Chief Investment Officer
RBC Global Asset Management Inc.

Global growth is decelerating and, while several pathways for the economy and markets exist, we believe risks for stocks are tilted to the downside following a narrow rally through the spring, and that sovereign fixed-income assets are particularly appealing in this environment. Aggressive interest-rate hikes since early 2022 are working to slow growth, but they have in the process destabilized parts of the economy and caused significant losses for holders of fixed-income assets. One area of vulnerability that surfaced in the past quarter was the U.S. regional-banking system, where a flurry of withdrawals led to the failure of several mid-sized banks and forced swift action by policymakers to restore faith in and proper functioning of the U.S. regional-banking system. The ensuing credit crunch has further tightened financial conditions and introduced new headwinds to an already slowing economy. As a result, we continue to expect at least a mild recession to take root over the next year.

Short-term interest rates are likely close to peaking given that inflation continues to moderate (Exhibit 1), opening the scope for bond yields to decline from around their highest levels in the past decade (Exhibit 2). At today's higher yields, and with the prospect of central-bank interest-rate cuts within our one-year forecast horizon, sovereign bonds offer their greatest return potential in many years, valuation risk is limited, and fixed income provides greater ballast for portfolios against equity-market weakness should a downturn materialize.

Exhibit 1: U.S. federal funds rate and inflation

Note: as of May 31, 2023. Source: Bloomberg, RBC GAM

Exhibit 2: U.S. 10-year government bond yield

Note: as of May 31, 2023. Source : Bloomberg, RBC GAM

Although stocks have proven resilient in the face of economic headwinds, the increasingly narrow leadership within major indices suggests equity markets are not as healthy as they seem on the surface. The MSCI World Index extended its gains in the past quarter (Exhibit 3), but most of the heavy lifting was delivered by a handful of U.S. mega-cap technology stocks. Excluding these companies, the index was down slightly for the three months ended May 31, 2023. That said, stock valuations are not unreasonable and multiples could expand as inflation falls and interest rates stop rising. We would be comforted if the rally started to broaden but we recognize that earnings, which are vulnerable to economic weakness, will be critical to sustaining any advance in stocks.

Our asset mix seeks to balance the risks and opportunities given a variety of scenarios for the economy and financial markets. We tend to run at least a mild tilt toward stocks to capture the risk premium versus bonds over the long term. But that premium is currently small and, given our base case that the economy is headed for recession over the next year, we are reluctant hold an overweight position in stocks at this time relative to our strategic "neutral". As a result, we removed the last of our overweight during the quarter, trimming our stock allocation by 100 basis points, moving half the proceeds into fixed income and half into cash. Our allocations to stocks, bonds and cash are now all in line with our strategic neutral levels. While we no longer have any tactical risk in our asset mix, we can't ignore the fact that the economy has not yet stumbled, and that there are pathways to a soft landing. To add back equity exposure, we would want to see an easing of financial conditions, an improvement in economic leading indicators and expanding equity-market breadth, particularly in the U.S. For a balanced global investor, we currently recommend an asset mix of 60 percent equities (strategic neutral position: 60 percent) and 38 percent fixed income (strategic neutral position: 38 percent), with the balance in cash. Actual fund or client portfolio positioning may differ depending on individual investment policies.

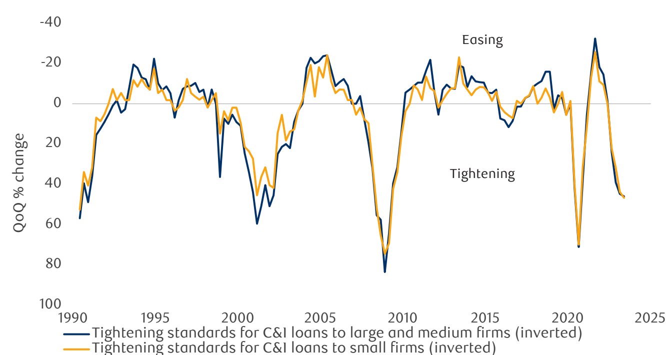
A credit crunch is underway

A dramatic deterioration in lending conditions is one of the more prominent areas where rapidly rising interest rates have impacted the economy. Even before stress surfaced in U.S. regional banks, surveys of loan officers suggested that

Exhibit 3: MSCI World Index
U.S. dollars

Note: MSCI World Index in U.S. dollars. As of May 31, 2023. Source: Bloomberg, RBC GAM

Exhibit 4: Senior loan officer survey on bank lending practices – Number of banks reporting tightening standards for C & I loans



Note: As of Q2 2023. Source: Federal Reserve, Macrobond

> "Although several emergency-funding facilities have been put into place, and mergers have occurred to stabilize the financial system in the near term, it seems unlikely that the economy will escape unscathed."

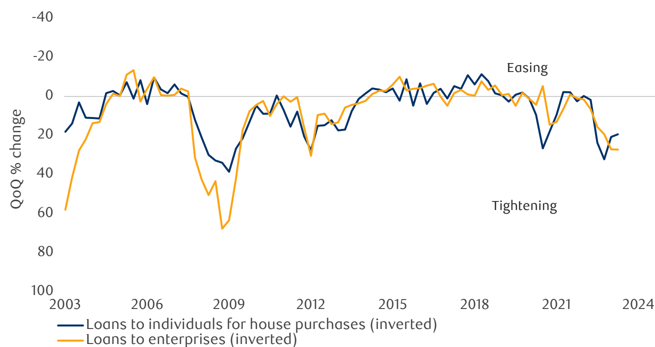
individuals and companies in the U.S. and Europe were having increasing difficulty obtaining loans (exhibits 4 and 5). These lending surveys are important to monitor because periods of credit contraction have in the past been associated with serious problems for the economy, and the survey readings are at levels typically seen only during recessions. Moreover, the failure of several U.S. regional banks and Credit Suisse in Europe presents new financial-system challenges that could increase regulatory burdens on banks, further restricting access to credit. Although several emergency-funding facilities have been put into place and mergers have occurred to stabilize the financial system in the near term, it seems unlikely that the economy will escape unscathed.

Markets don't reflect financial stress as a systemic threat

The failure of several U.S. regional banks in recent months may have triggered flashbacks of the 2008-2009 global financial crisis, but a variety of indicators that we monitor are not suggesting that the situation is quite so dire. Spreads on high-yield bonds remain below their long-term norms (Exhibit 6), and while the cost of insuring prime brokers spiked in March, spreads on credit default swaps have narrowed quickly after blowing out (Exhibit 7). That said, there is evidence of lasting damage in the value of bank stocks. The KBW Bank Index currently trades at a record low relative to the S&P 500, after sliding approximately 25% since the beginning of March (Exhibit 8). The fact that we are

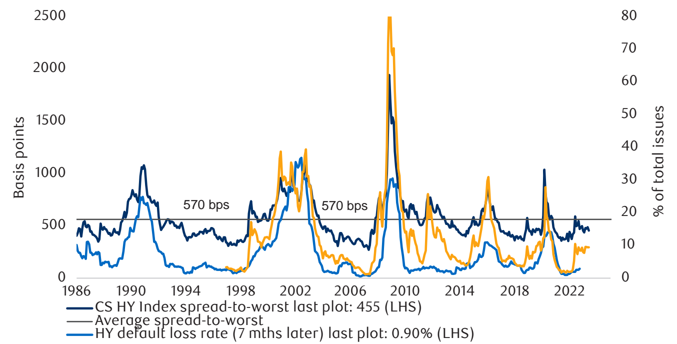
Exhibit 5: ECB Euro Area bank lending survey

Number of banks reporting tightening credit standards



Note: As of Q2 2023. Source: European Central Bank, Macrobond

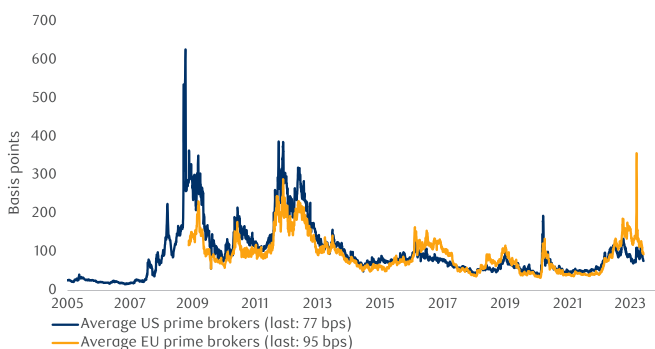
Exhibit 6: High yield bond spread



Note: As of May 31, 2023. Source: BofAML, Credit Suisse, RBC GAM

Exhibit 7: Prime brokers

5-year CDS spreads



Note: As of May 31, 2023. US prime brokers include Goldman Sachs, Morgan Stanley, and JPMorgan. EU prime brokers include Deutsche Bank, UBS, BNP Paribas, and Credit Suisse Source: BMO, Bloomberg, RBC GAM

Exhibit 8: Relative strength

Philadelphia (KBW) Bank Index relative to S&P 500

Note: As of May 31, 2023. Source: RBC GAM, RBC CM

seeing weakness in banking stocks while stress indicators appear relatively benign suggests investors believe any bank troubles will be contained within the sector.

Inflation continues to cool

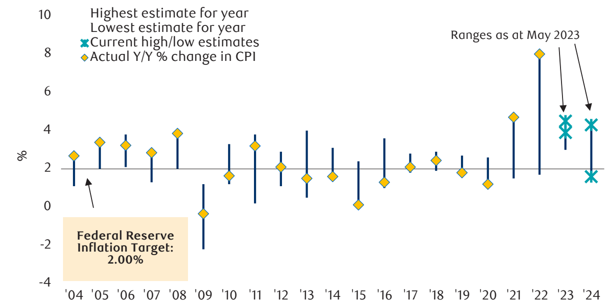
One bright spot is that inflation pressures appear to be moderating and should continue to cool after reaching 40-year highs. U.S. inflation peaked at 9.1% in June of 2022, and the consensus of economists' estimates is for CPI inflation to fall to 4.2% by year-end 2023 and then to 2.6% by the end of 2024 (Exhibit 9). Moreover, based on pricing in the real-return bond market, investors expect inflation to average 1.90% in Canada over the next 10 years, 2.22% in the U.S., and 2.41% in the eurozone (Exhibit 10). The data indicate that inflation is moving in the right direction and that expectations are well anchored around the 2% level targeted by most central banks.

Our confidence that inflation will stabilize at significantly lower levels is bolstered by a recognition that the amount of money in the financial system is no longer rising after several years of unprecedented stimulus. Exhibit 11 plots the growth rate in the U.S. money supply, advanced by 16 months, alongside CPI inflation. The two lines on the chart move closely together, suggesting that changes in money-supply growth foreshadow changes in inflation. The surge in inflation through 2021 and 2022 appears to be the result of a massive pandemic-induced expansion in the domestic money supply needed to stimulate the economy. With higher interest rates and less propensity for individuals and businesses to borrow, money-supply growth has slowed and inflation has followed. We note that money supply is now actually contracting slightly.

> "Our confidence that inflation will stabilize at significantly lower levels is bolstered by a recognition that the amount of money in the financial system is no longer rising after several years of unprecedented stimulus."

Exhibit 9: United States

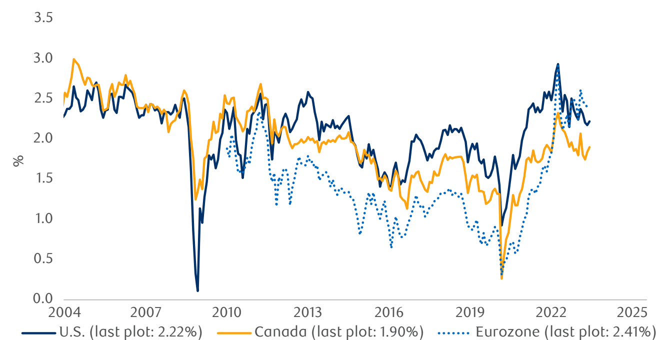
Inflation estimate dispersion



Source: Consensus Economics, RBC GAM

Exhibit 10: Implied long-term inflation premium

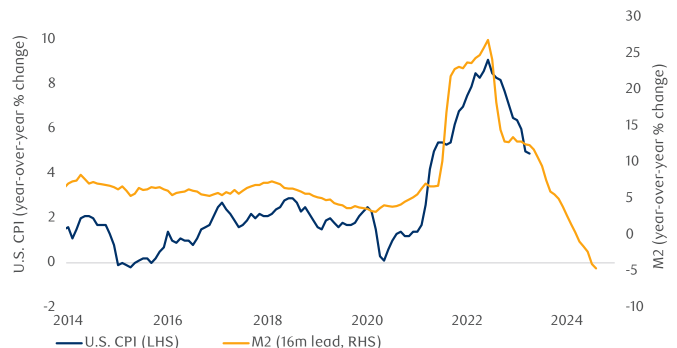
Breakeven inflation rate: nominal vs 10-year real return bond



Note: As of May 2023. Eurozone represents GDP-weighted breakeven inflation of Germany, France and Italy. Source: Bloomberg, RBC CM, RBC GAM

Exhibit 11: U.S. inflation and money supply

Year-over-year changes in CPI and M2



Note: As of Apr 30, 2023. Source: Bloomberg, RBC GAM

Monetary-tightening cycle could be nearing the finish line

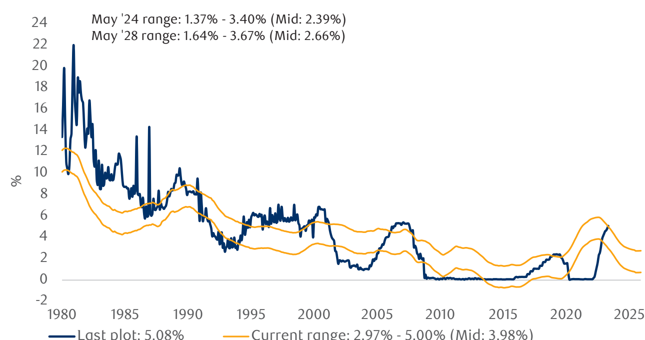
With inflation coming down and the economy facing the lagged effects of the rapid rise in interest rates that began in early 2022, the need for further tightening is becoming less apparent. The fed funds rate is currently situated above our modelled equilibrium level, suggesting that interest rates are now in restrictive territory (Exhibit 12). This policy stance is warranted given the Fed's goal of curbing inflationary pressures. But, as inflation decelerates, the equilibrium level in the models also falls, suggesting that at some point over our one-year forecast horizon rate decreases could be appropriate. Investors are pricing in the likelihood of one more 25-basis-point hike over the summer, followed by cuts totaling between 75 and 100 basis points by early 2024 (Exhibit 13). Our own expectation errs on the side of fewer rate cuts rather than more, and our forecast is for the fed funds rate to fall to around 4.75% within a year from 5.25% currently.

Market implications following the last hike

A look at past cycles can help gauge what to expect for financial markets as we near the end of rate hikes. We tracked the median experience of stocks and bond yields in the 18 tightening cycles back to 1957 and measured whether the economy fell into recession (exhibits 14 and 15). Of the 18 cycles, recessions occurred in half, with the balance experiencing soft landings. T = 0 on the chart indicates the date of the last rate hike in any given tightening cycle. For stocks, the S&P 500 continued to march higher if recession was avoided, but stocks tended to struggle for as long as

Exhibit 12: U.S. fed funds rate

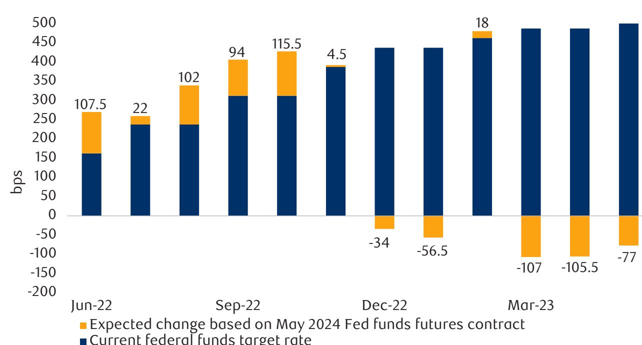
Equilibrium range



Note: As of May 31, 2023. Source: Federal Reserve, RBC GAM

Exhibit 13: Fed funds rate and implied expectations

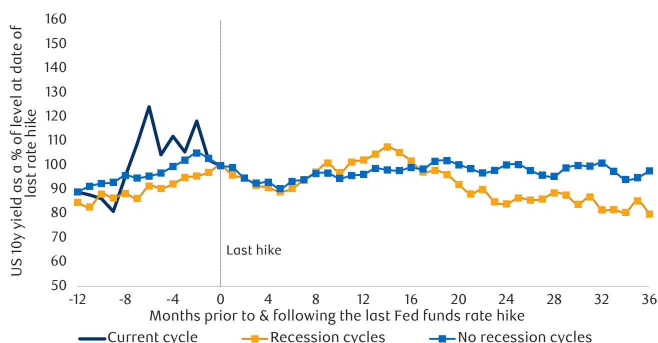
12-month futures contract



Note: As of May 31, 2023. Source: RBC GAM

Exhibit 14: US 10-year yield and the Fed funds rate hike

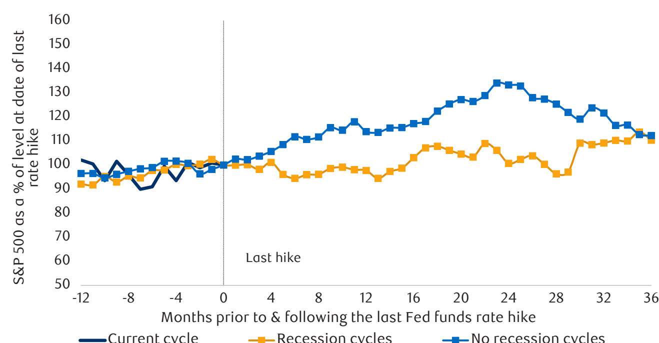
Implications for current cycle, following last rate hike



Note: As of May 31, 2023. Source: RBC GAM

Exhibit 15: S&P 500 and the Fed funds rate hike

Implications for current cycle, following last rate hike



Note: As of May 31, 2023. Source: RBC GAM

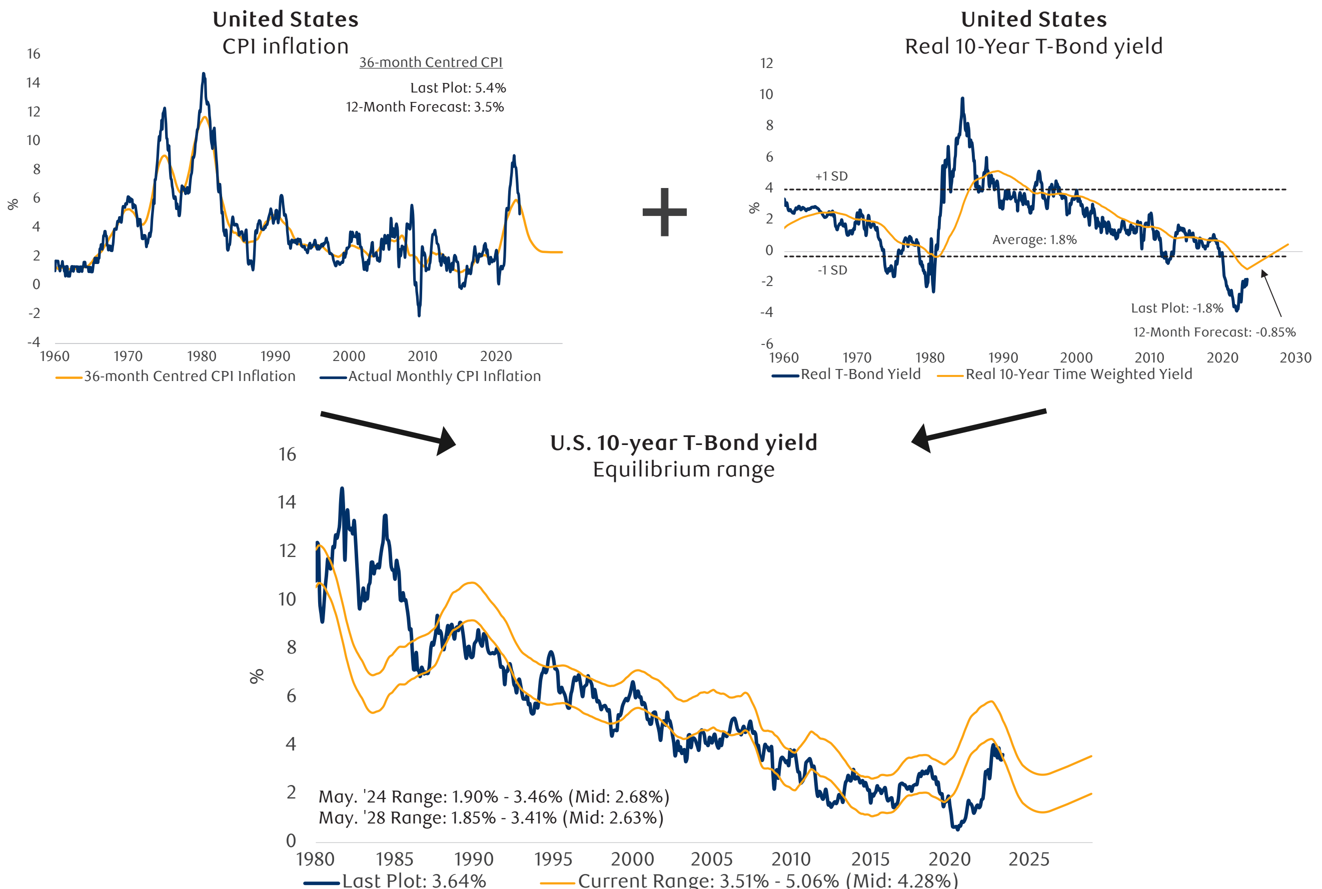
12 months following the last rate hike in instances where the economy fell into recession. Like stocks, the direction of bond yields hinges on whether we enter recession, but an important observation for the fixed-income market is that the peak in 10-year T-bond yields is usually set by the time the Fed stops raising rates no matter how the economy plays out.

Sovereign-bond valuation risk is limited

It appears that the relentless increase in bond yields through the past year has abated, and investors have been conditioned to a higher interest-rate environment. The U.S. 10-year yield fluctuated between 3.3% and 4.1% over the past three months ending the quarter near the middle of that range. To the extent that inflation continues falling and the threat of recession remains, a further sustained increase in yields seems unlikely (page 42).

Exhibit 16, which breaks our model of the U.S. 10-year Treasury into its component parts, reveals that inflation is the main driver of the recent fluctuations in the equilibrium band. As inflation soared, investors embedded a higher inflation premium into bonds. The model suggests the reverse will be true as inflation moderates. The other component of our model is the real, or after-inflation, interest rate, which has been gradually climbing from negative levels. Over the longer term, we continue to expect real interest rates to rise slightly above zero as savers will ultimately need to be compensated for saving instead of spending. But any increase in real yields will likely be trivial in the near term compared to the significant expected declines in the inflation premium. As a result, we look for yields to fall to 3.25% over the next year, which would generate close to a 7% total return on Treasuries, and with minimal valuation risk.

Exhibit 16: U.S. 10-year bond yield



Note: As of May 31, 2023. Source: RBC GAM

Technical indicators support the case for Treasuries

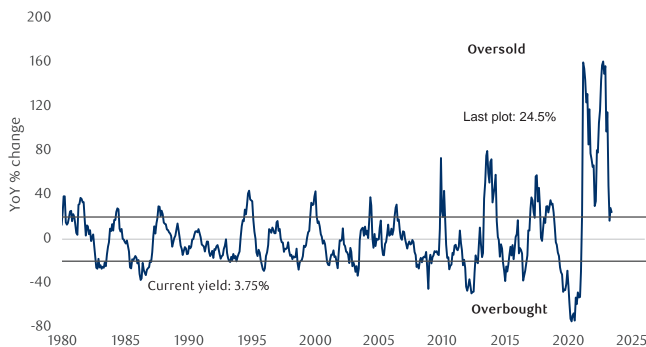
In addition to valuations, technical indicators also suggest that Treasuries could be a good buy. A reliable indicator, based on the year-over-year change in the 10-year yield (Exhibit 17), triggered a buy signal when the rate at which yields were increasing fell below a key threshold at the end of April. Moreover, selling pressure in the bond market may be nearing exhaustion as investor sentiment has reached extreme levels of pessimism not seen since 2000 (Exhibit 18). Finally, our measure of long-term price momentum has turned down, signaling a long period of falling yields ahead (Exhibit 19). Our conclusion is that this is not the time to be running large underweights in our fixed-income allocation.

Mega-cap technology stocks dominate returns

The stock market rebound in late 2022/early 2023 was helped by diminishing investor concerns about inflation and calming worries about the sustainability of economic growth. The rally was initially broad-based across regions, but returns in recent months have been concentrated in a narrow set of U.S. mega-cap technology stocks. Apart from the U.S. large-cap market, most major indices were flat or down for the quarter (Exhibit 20). In U.S.-dollar price terms, the technology-heavy NASDAQ was up 13% in the quarter ended May 31, 2023, and the S&P 500 was up 5%. But the MSCI EAFE Index and MSCI Emerging Markets Index were both flat, while Canada's S&P/TSX Composite Index, hindered by its heavy weighting in financials, was down 3%.

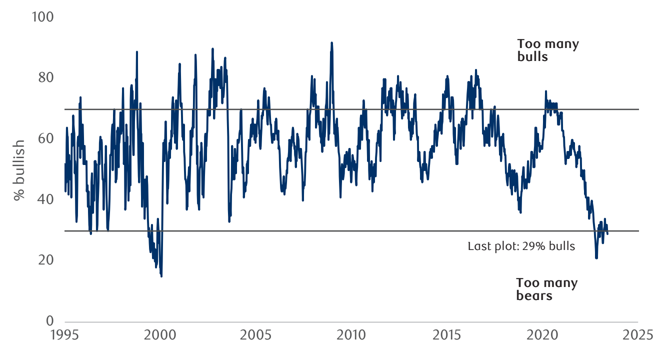
Exhibit 17: U.S. 10-year T-bond yields

Rate of change



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM

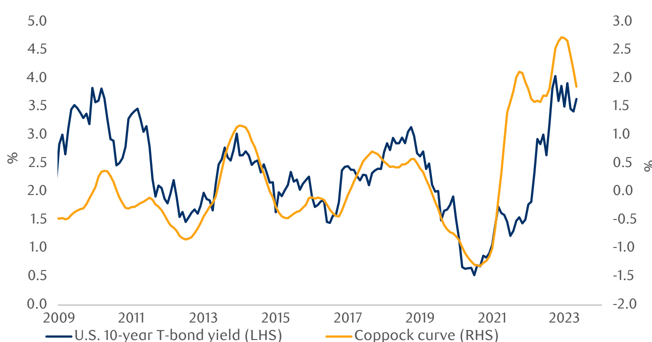
Exhibit 18: U.S. 10-year T-bond bullish consensus



Note: As of May 28, 2023. Source: Market Vane, RBC GAM

Exhibit 19: U.S. 10-year T-bond yield

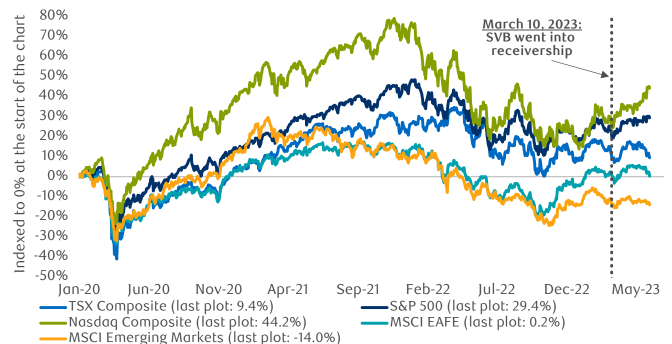
Long-term price (yield) momentum



Note: Coppock curve based on monthly data. As of May 31, 2023. Source: Bloomberg, RBC GAM

Exhibit 20: Major equity market indices

Cumulative price returns indices in USD



Note: As of May 31, 2023. Price returns computed in USD. Source: Bloomberg, RBC GAM

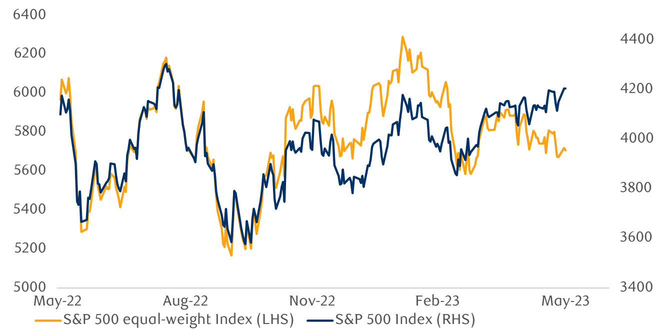
Excitement about artificial intelligence (AI) was a major catalyst in the past quarter, helping several U.S. mega-cap technology stocks to outperform significantly. Weightings in the S&P 500 are heavily skewed to a few companies with extremely large market capitalizations, but the equal-weighted S&P 500 levels the playing field and gives a better representation of the average stock's performance. For the five months ending May 31, 2023, the S&P 500 rose 8.9%, but the equal-weighted version was actually down 1.4% in that period (Exhibit 21). So far this year, the equal weight S&P 500 has given back all the gains amassed relative to the cap-weighted index since the announcement of a COVID-19 vaccine in late 2020 (Exhibit 22). A rise in the S&P 500 based on only a handful of names makes for a difficult market and, typically, we would prefer to see expanding breadth alongside a rising stock-market index to confirm a healthy, sustainable, bull market.

Valuations are not unreasonable, and headwinds could be fading

Our fair-value models suggests that stocks are reasonably priced for long-term investors. Exhibit 23 plots the over/under valuation of a composite of global equity markets, and it suggests that global equities are currently 3.7% *below* our estimate of fair value. Last year's bear market in stocks erased the significant overvaluation that existed within this composite, which had climbed as much as 33% above fair value by late 2021. Moreover, equity valuations vary widely by region and, while the U.S. large-cap market trades slightly above fair value, markets outside the U.S. are trading at discounts (page 43). Excluding the U.S., our global composite is situated at 15% below fair value, setting the stage for a sustainable advance should near-term challenges diminish.

Not only are valuations reasonable, but some of last year's major headwinds to higher price-to-earnings (P/E) ratios could be fading. We model the appropriate level of valuations based on a series of regression equations, with weightings assigned to reflect the strength of each variable's past relationship with P/Es. Accounting for a combined weight of 53%, the two biggest factors that influence valuations in our models are bond yields and inflation. These relationships are plotted in exhibits 24 and 25. Notice that both have inverse relationships, so that higher bond yields and inflation result in lower price-to-earnings multiples. But the reverse is also true: a drop in inflation from extreme highs could *boost*

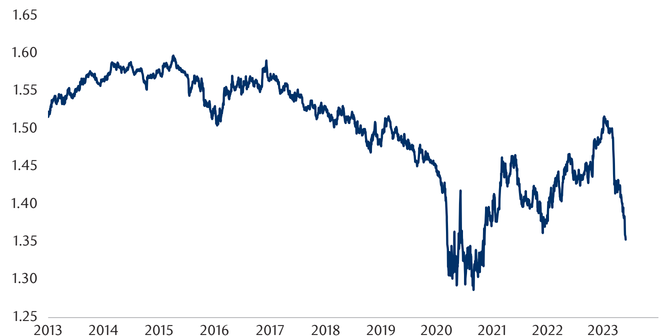
Exhibit 21: S&P 500 index and S&P 500 equal-weight index



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM

Exhibit 22: S&P 500 Index

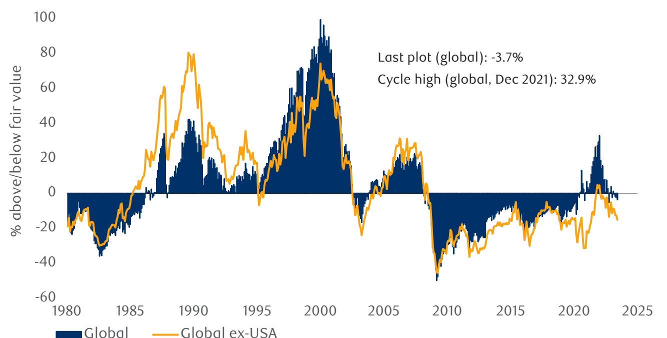
Equal-weighted index / cap-weighted index



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM

Exhibit 23: Global stock market composite

Equity market indexes relative to equilibrium



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM

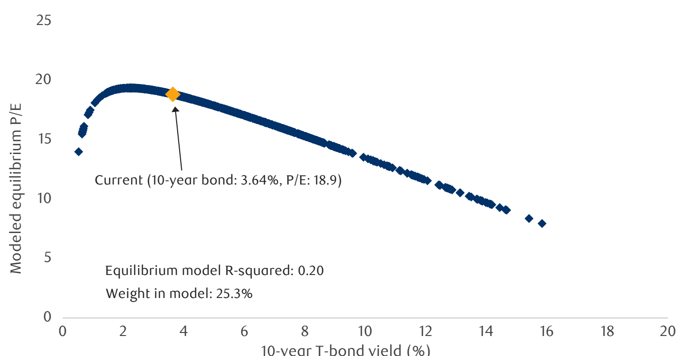
valuations. As bond yields stabilize, the maximum downward pressure on valuations could be behind us.

Earnings stall as profit margins shrink

The bigger threat to the stock market is now the sustainability of corporate profits, which have been struggling and will be vulnerable if the economy falls into recession. One of the features of the post-pandemic recovery has been the record-setting rise in S&P 500 revenues that extended into the past quarter (Exhibit 26). But even as revenues continue to climb, they are no longer feeding through to earnings, as profit growth appears to have stalled in the past two quarters (Exhibits 27). Rising cost pressures have weighed on record-high profit margins (Exhibit 28). A slowing economy should limit company's pricing power and profits would be subject to further downside.

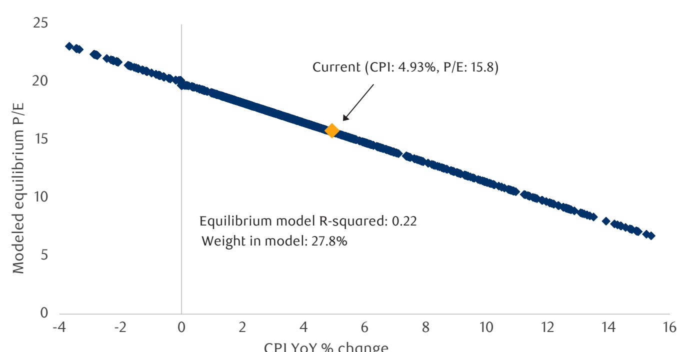
If a recession materializes, corporate revenues are likely to slow meaningfully given their strong correlation with nominal GDP growth. Exhibit 29 plots nominal GDP alongside S&P 500 revenues, which tend to track closely. Our forecasts for nominal GDP, penciled in on the chart, are consistent with a significant slowing in revenue growth to low single digits or even slightly negative. Moreover, earnings are currently

Exhibit 24: S&P 500 equilibrium model
P/E factor as a function of 10-year bond yield



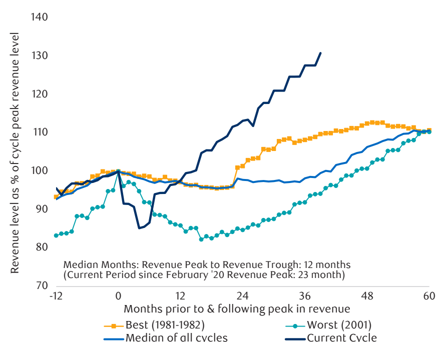
Note: As of May 31, 2023. Source: RBC GAM

Exhibit 25: S&P 500 equilibrium model
P/E factor as a function of CPI



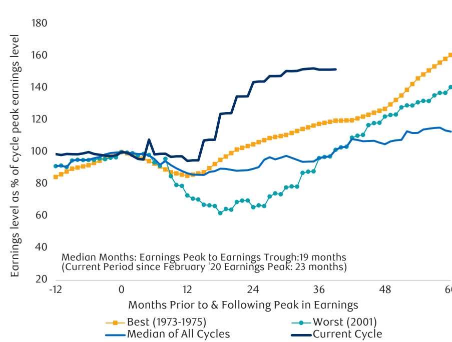
Note: As of May 31, 2023. Source: RBC GAM

Exhibit 26: S&P 500 revenue
All revenue peaks associated with periods of recession



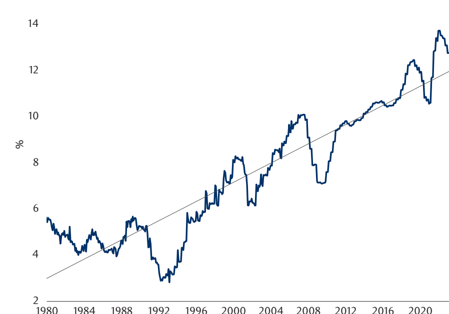
Note: As of May 31, 2023. Source: RBC GAM

Exhibit 27: S&P 500 Recurring Earnings – All earnings peaks associated with periods of recession



Note: As of May 31, 2023. Source: RBC GAM

Exhibit 28: S&P 500
Net Margin



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM

running above trend, and we've never seen a slowdown in the economy that didn't force profits at least back to their long-term trend line (Exhibit 30). In a slowdown scenario, aggregate S&P earnings could fall as much as 15% from their peak.

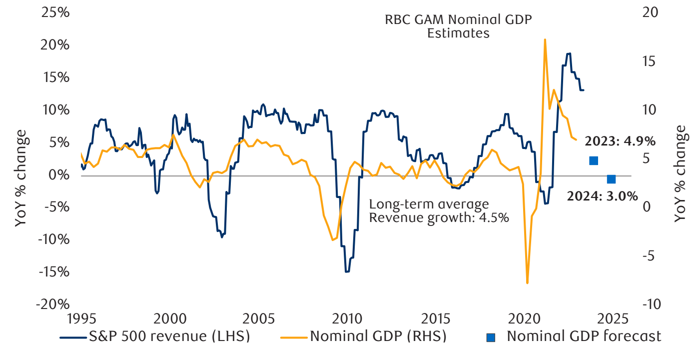
An important distinction must be made between the broader market and the handful of mega-cap technology stocks that have been driving the S&P 500 higher. These stocks, dubbed the "Fab 7" and accounting for 27% of the S&P 500 index weight, have generated consistent and impressive earnings growth, particularly during periods of economic weakness. While earnings of the S&P 500 as a whole are expected to decline slightly this year, analysts expect the Fab 7 to increase their profits by 7% (Exhibit 31). Moreover, while analysts look for S&P 500 earnings to rebound 11% next year, the Fab 7 are projected to generate profit growth of 21%. Even if the economy and corporate profits are being challenged, this small group of companies could limit declines in the index if their earnings prove to be as durable as analysts currently project.

Scenario analysis suggests unfavourable risk-reward in stocks

Exhibit 32 combines a variety of price-to-earnings ratios with the current consensus of earnings estimates to gauge potential scenarios for the S&P 500. Risks appear tilted to the downside. If the S&P 500 trades at our modelled equilibrium

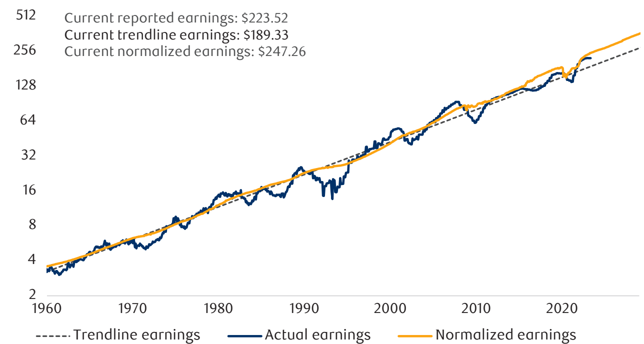
Exhibit 29: United States

S&P 500 revenue and nominal GDP



Note: As of May 31, 2023. Source: RBC CM, RBC GAM

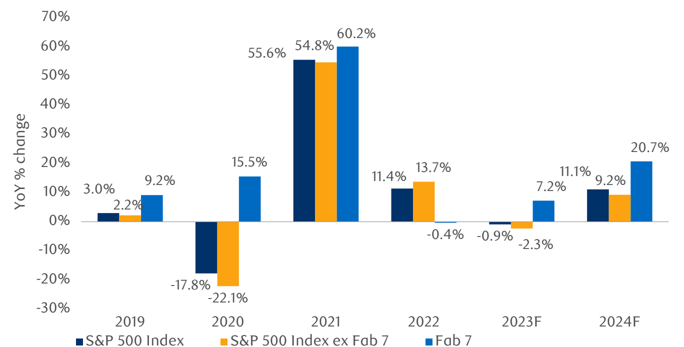
Exhibit 30: S&P 500 earnings comparison



Note: As of May 31, 2023. Source: RBC GAM

Exhibit 31: S&P 500 Composite Index

Actual and bottom-up consensus earnings growth estimates



Note: Fab 7 includes Apple, Microsoft, Alphabet, Amazon, Nvidia, Meta and Tesla. Actual data for 2022 and prior, bottom-up consensus estimates for 2023 onward. Based on a bottom-up aggregation of current index constitutents. As of May 31, 2023. Source: Bloomberg, RBC GAM

Exhibit 32: Earnings estimates and alternative scenarios for valuations and outcomes for the S&P 500

		Consensus				Consensus	
		2023 Top Down	2023 Bottom Up	Recessionary*		2024 Top Down	2024 Bottom Up
	P/E	$209	$219	$156	P/E	$246.0	$241.0
+1 Standard Deviation	21.8	4556	4770	3403	22.6	5571	5459
+0.5 Standard Deviation	19.6	4090	4282	3055	20.3	5001	4901
Equilibrium	17.3	3624	3795	2707	18.0	4432	4342
-0.5 Standard Deviation	15.1	3159	3307	2359	15.7	3862	3784
-1 Standard Deviation	12.9	2693	2819	2011	13.4	3292	3226

Note: *Trailing 12-Month Earnings to April 2023 less 25% (i.e. average decline in earnings through recession). As of May 31, 2023. Source: Bloomberg, Thomson Reuters, RBC GAM

P/E of 17.3 times earnings in 2023 (the level consistent with expected interest rates and inflation), and earnings per share achieve the consensus of US$219, the S&P 500 would fall to 3795, or 9% below the close on May 31, 2023. Were a recession to materialize and profits fell 25%, which is the average profit decline during recessions, the S&P 500 could very well trade in the low 3000s. The math for next year tells us that the S&P 500 could rise 6% to 4432 over the next 18 months, based on a P/E ratio of 18 and the current consensus for earnings. The upside seems limited while the downside is large and, given our expectation that the economy is more likely than not to fall into recession over the year ahead, we remain cautious on the outlook for stocks.

Styles: large-cap growth is back in vogue

The emergence of large-cap growth leadership is consistent with a weakening economic environment, and the turmoil in March involving Silicon Valley Bank appears to have been the catalyst that pushed investors back into large-cap growth stocks at the expense of smaller-cap value stocks. Value indices are heavily weighted with financials and cyclical stocks, which typically underperform during periods of economic weakness. Stress in the financial system perhaps steered investors toward larger companies, flush with cash, and particularly the mega-cap technology stocks that have proven their ability to grow profits almost independent of the economic backdrop. Exhibits 33 and 34 plot the relative

performance of growth and value stocks, segmented by market cap: the only one with a gain in the past quarter was large-cap growth.

International markets perform better

Some international markets have been performing better, even without exposure to mega-cap technology stocks, as their economies have held up better than expected. The MSCI Japan Index has enjoyed a particularly strong run, climbing to multi-decade highs and exhibiting relative strength to global equities (Exhibit 35). European equities have also held up reasonably well given that the regional economy is less exposed to stress in the U.S. banking system (Exhibit 36).

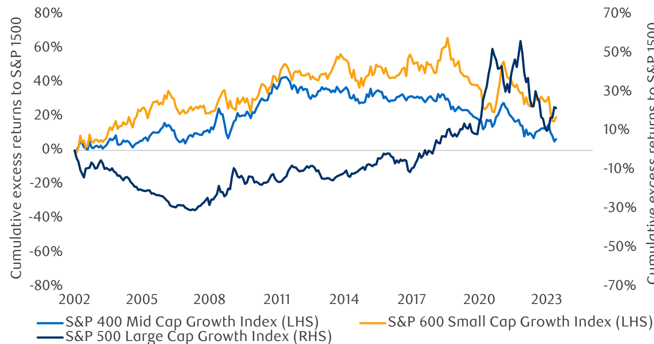
The rebound in these non-U.S. markets comes after underperforming for nearly two decades and having reached extreme valuation discounts late last year. While time will tell if the rally in international markets will be sustained, we are encouraged by these trends and recognize that the next bull market could be led by markets outside of the U.S.

Asset mix – neutralizing tactical allocation

Uncertainty in the outlook remains elevated and the range of potential outcomes for the economy and markets is wider than usual. Financial conditions have tightened significantly, leading indicators of economic growth are pointing to contraction and the emergence of stress in U.S. regional

Exhibit 33: Returns for Growth

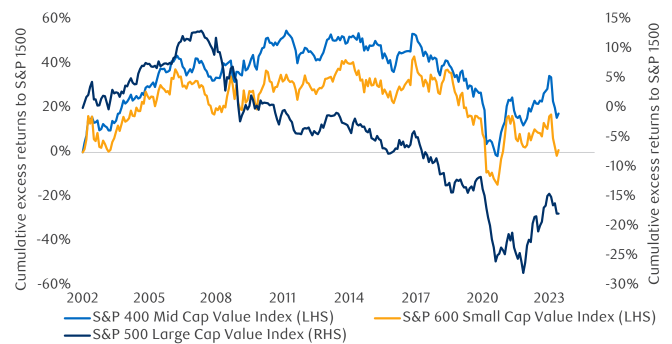
S&P growth indices



Note: As of May 31, 2023. Source: S&P Dow Jones Indices, Bloomberg, RBC GAM

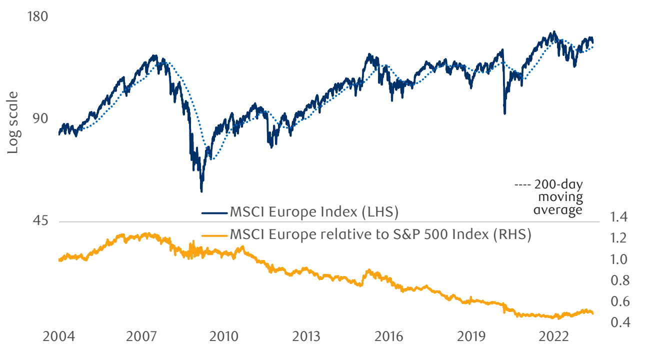
Exhibit 34: Returns for Value

S&P value indices



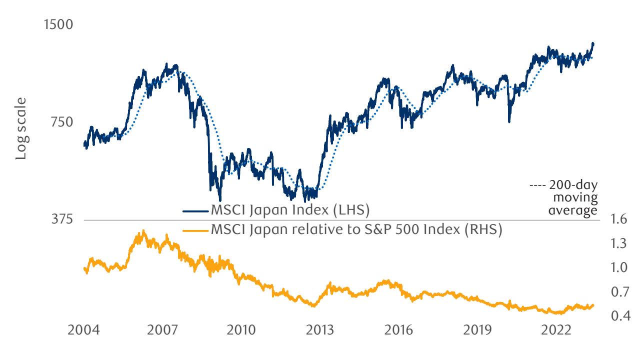
Note: As of May 31, 2023. Source: S&P Dow Jones Indices, Bloomberg, RBC GAM

Exhibit 35: MSCI Europe Index



Note: As of May 31, 2023. Source: RBC GAM

Exhibit 36: MSCI Japan Index



Note: As of May 31, 2023. Source: RBC GAM

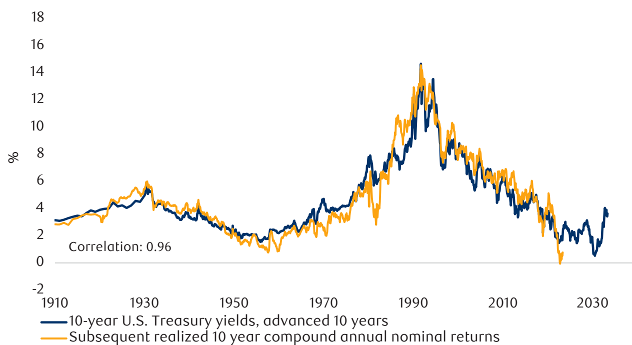
banks adds additional headwinds for economic growth. Our base case is for the economy to fall into recession at some point over the next year, setting a peak for interest rates. A recession would pose vulnerabilities for risk assets.

In the near term, we believe that the yields available on sovereign fixed-income assets are as attractive as they have been in a decade, and if inflation and the economy follow our expectations, yields are likely to decline over the year ahead. In that environment, bondholders will be able to keep their coupons and even generate a capital gain on fixed-income assets, providing an offset for potential weakness in equity markets.

We balance this short-term view against an improved outlook over the long term for all asset classes. The substantial sell-off in both stocks and bonds last year reset valuations to levels that should generate attractive returns over the long term. Exhibits 37 and 38 provide simple long-term forecasting heuristics for the 10-year Treasury bond and the S&P 500. A good guess for the return on a 10-year T-bond over the next decade is the current yield to maturity, or around 3.6% at the time of writing, up from around 1.5% at the beginning of 2022. For stocks, the Shiller CAPE at the onset of an investment decision correlates well with the returns generated over the next 10 years. At the beginning of 2022, stocks were expensive and the CAPE suggested the S&P 500 would deliver returns of just 3% over the next decade. But after last year's bear market and even with the recent rebound, that number has improved to 9% today. While we don't think it is a good time to hold exposure to stocks above one's strategic "neutral" setting, we also can't ignore evidence that the time to consider going overweight again may be approaching.

We neutralized our asset mix in the past quarter and are currently running with no tactical risk after selling 100 basis points of stocks and shifting half of the proceeds into bonds and the other half into cash. Among the signs we are looking for to motivate us to take more equity risk are some combination of easing financial conditions, a rebound in economic leading indicators and/or an expansion of market breadth in U.S. equities in particular. Currently, our recommended asset weighting for a balanced global investor sits at our strategic neutral positions of 60% in stocks, 38% in bonds, and 2% in cash. Actual fund or client portfolio positioning may differ depending on individual investment policies.

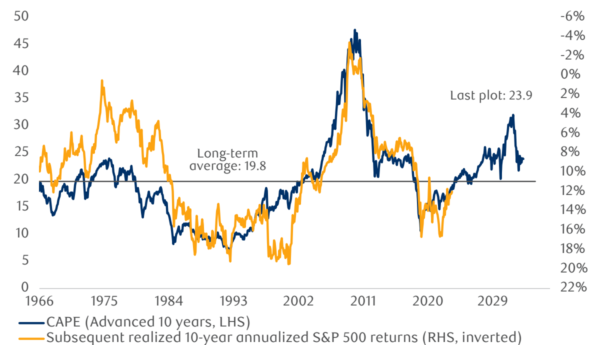
Exhibit 37: U.S. 10-year Treasury note and returns



Note: As of May 31, 2023. Source: Deutsche Bank, Macrobond, RBC GAM

Exhibit 38: Shiller's CAPE

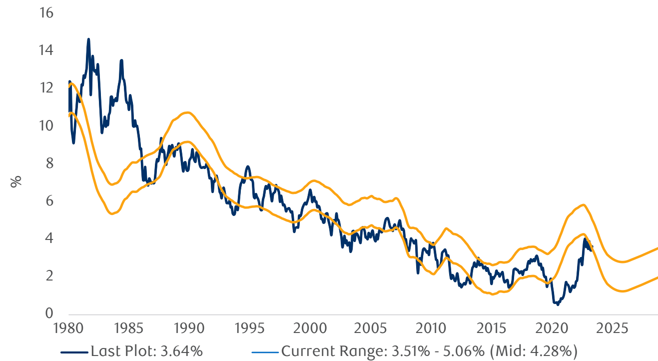
Real S&P 500 Index / 10-year average of real EPS



Note: As of May 31, 2023. Source: Macrobond, Bloomberg, RBC GAM

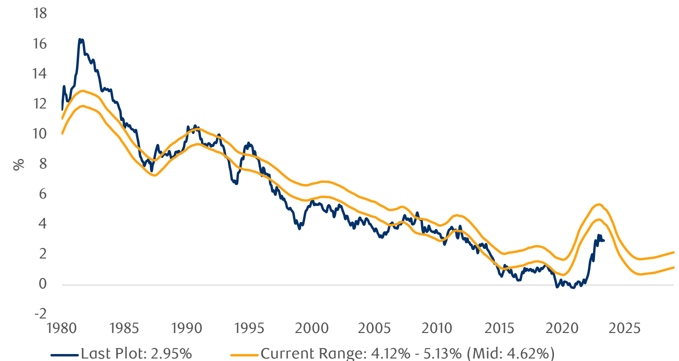
Global fixed income markets

U.S. 10-Year T-Bond Yield
Equilibrium range



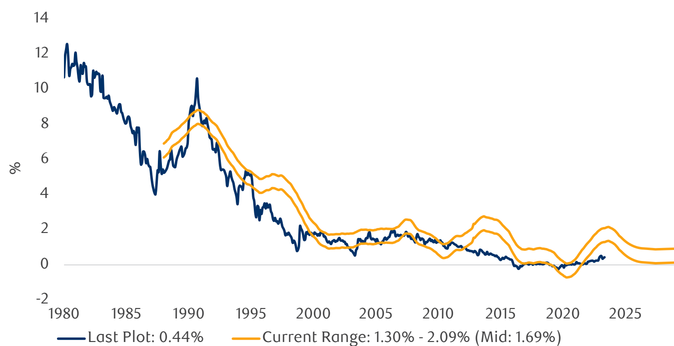
Note: As of May 31, 2023. Source: RBC GAM, RBC CM

Eurozone 10-Year Bond Yield
Equilibrium range



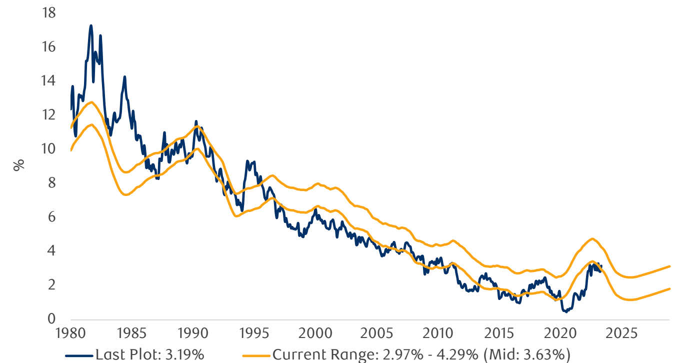
Note: As of May 31, 2023. Source: RBC GAM, RBC CM

Japan 10-Year Bond Yield
Equilibrium range



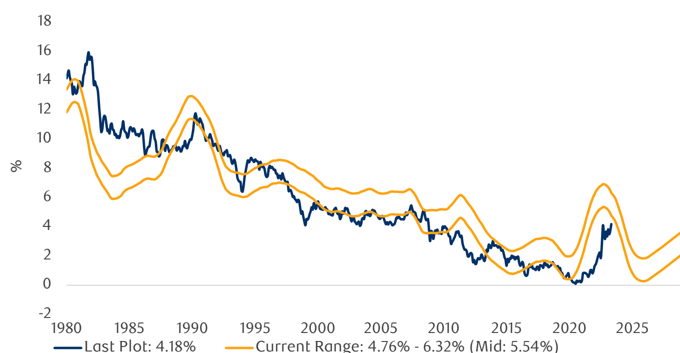
Note: As of May 31, 2023. Source: RBC GAM, RBC CM

Canada 10-Year Bond Yield
Equilibrium range



Note: As of May 31, 2023. Source: RBC GAM, RBC CM

U.K. 10-Year Gilt
Equilibrium range

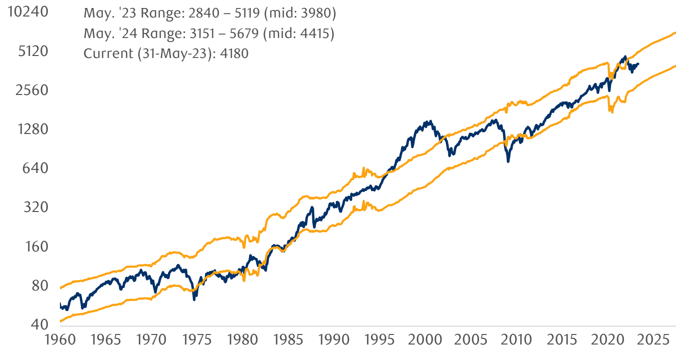


Note: As of May 31, 2023. Source: RBC GAM, RBC CM

"To the extent that inflation continues falling and the threat of recession remains, a further sustained increase in yields seems unlikely."

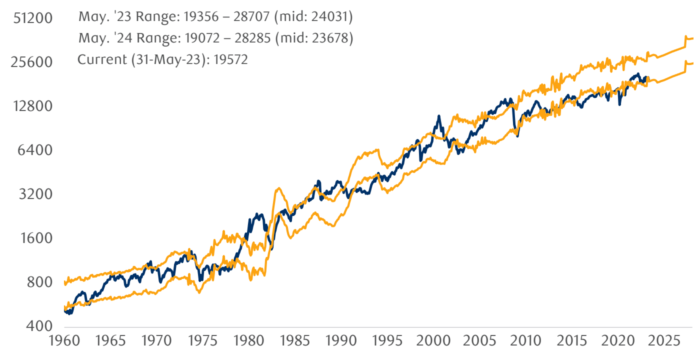
Global equity markets

S&P 500 Equilibrium
Normalized earnings and valuations



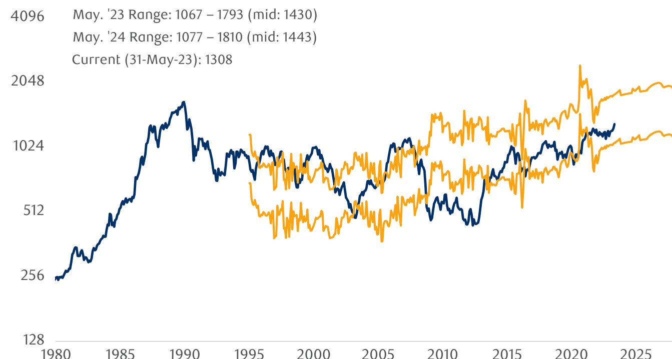
Note: As of May 31, 2023. Source: RBC GAM

S&P/TSX Composite Equilibrium
Normalized earnings and valuations



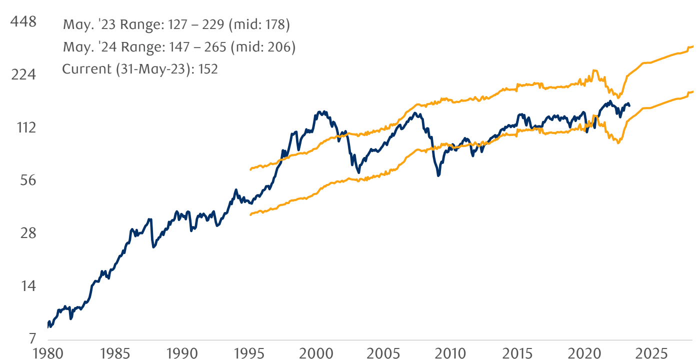
Note: As of May 31, 2023. Source: RBC GAM

MSCI Japan Index
Normalized earnings and valuations



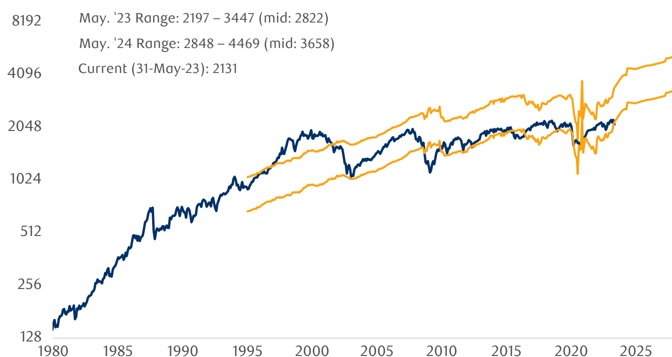
Note: As of May 31, 2023. Source: RBC GAM

MSCI Europe Index
Normalized earnings and valuations



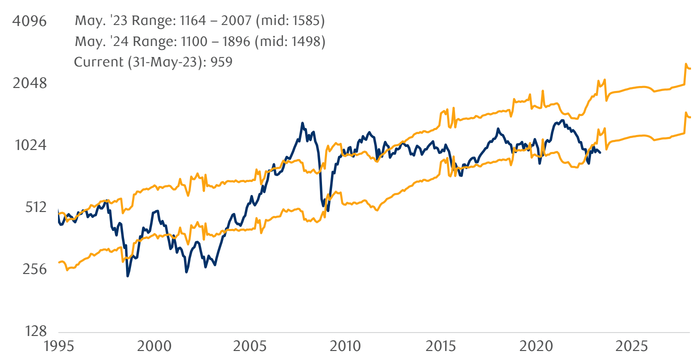
Note: As of May 31, 2023. Source: RBC GAM

MSCI U.K. Index
Normalized earnings and valuations

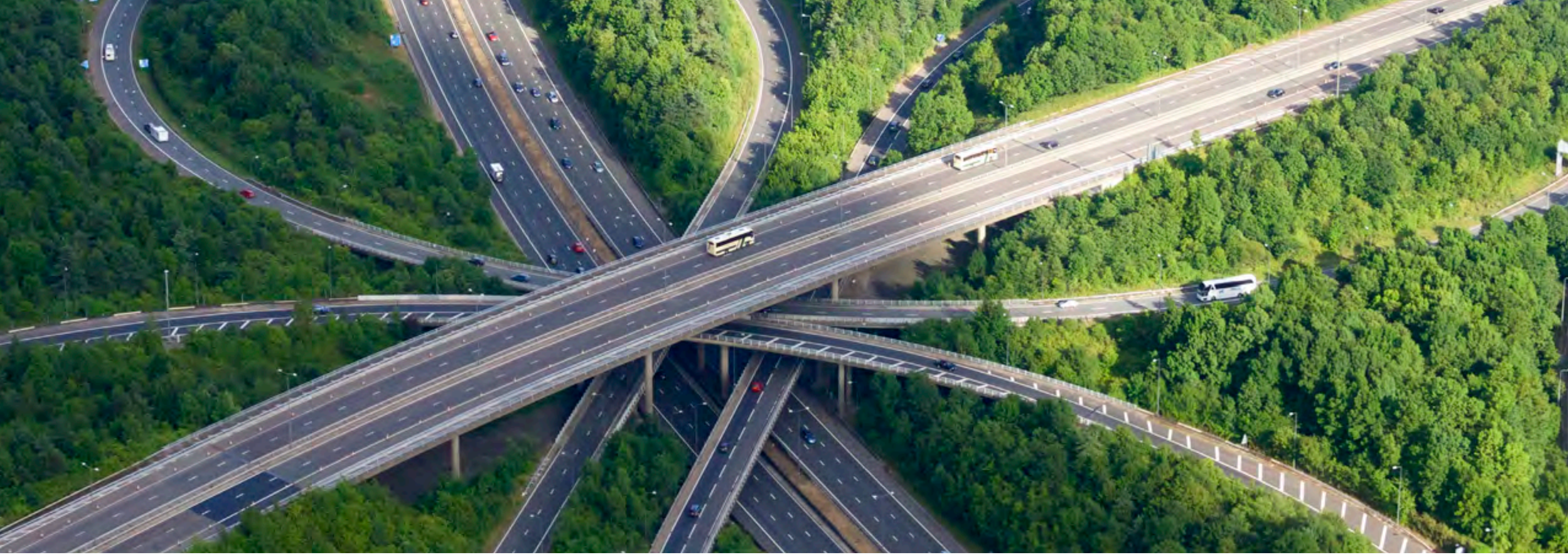


Note: As of May 31, 2023. Source: RBC GAM

MSCI Emerging Markets Index
Normalized earnings and valuations



Note: As of May 31, 2023. Source: RBC GAM



Global fixed income markets

Soo Boo Cheah, MBA, CFA
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After two years of declines, government bonds are enjoying somewhat of a renaissance in 2023. The rebound is due to slowdowns in economic activity and inflation, and expectations among investors including us that most regions will enter a recession later this year. Against this backdrop, major central banks are unlikely to raise policy rates much further in the near term, providing a tailwind to bond returns for the remainder of the year. We forecast mid- to high single-digit returns in most government-bond markets over the next 12 months.

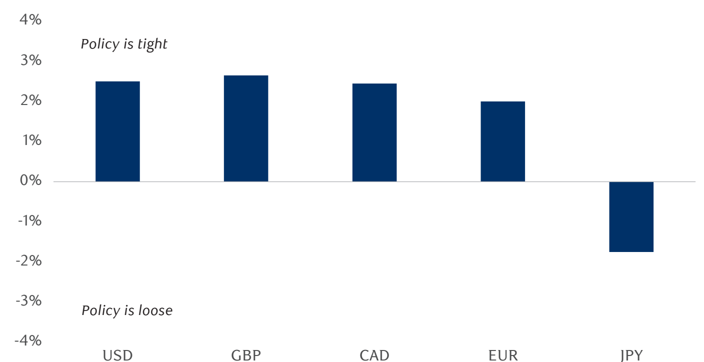
Currency-hedged global government bonds returned 2.6% for Canadian investors between the end of December 2022 and the end of May 2023, marking a better-than-average start to the year and providing a welcome respite for investors after the worst ever start in 2022. The last time bonds performed as poorly for a full year was in 1994, followed by a blockbuster 1995 when global government bonds returned 19.3%. Barring a much more significant economic downturn, however, we do not expect similarly heady returns for bonds in 2023.

Why the change of fortune for government bonds? For one thing, central banks are likely near the end of their policy-tightening cycles. Central banks hiked interest rates by hundreds of basis points last year, causing bond yields to rise, and rates are now clearly in what policymakers regard as restrictive territory (Exhibit 1). Absent another stretch of unexpectedly rapid inflation, it is unlikely that rates will rise like they did last year.

While annual price rises remain well above central-bank targets, inflation in most markets looks to have peaked. When measured over the last six and nine months, the pace of price gains is even closer to central-bank targets. Most of this improvement is driven by easing pressure on supply chains as the global pandemic ebbed, according to calculations by economists at the Federal Reserve Bank of New York, and by lower energy prices.

With supply chains as a source of disinflation largely exhausted, central bankers are rightly focused on curbing

Exhibit 1: Interest rates are restrictive
Actual central-bank policy rates versus estimated neutral rates



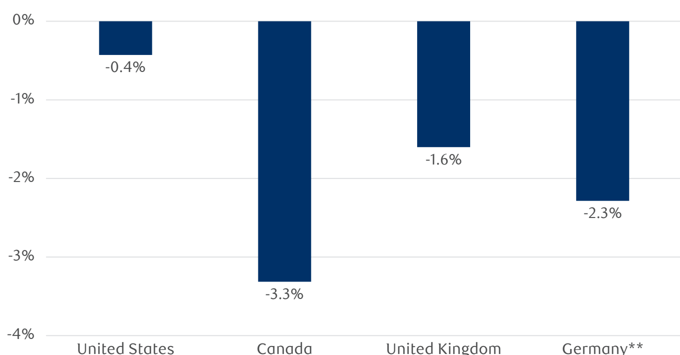
Note: As of May 31, 2023. Source: National central banks, Bloomberg, RBC GAM calculations

demand via the labour market, which remains surprisingly robust after the most aggressive policy-tightening cycle since the 1980s. Unemployment rates are at or near multi-decade lows and workers around the world are enjoying the best wage gains in a generation. However, the recent wins for workers increase the risk that inflation becomes entrenched at a permanently higher rate because rising wages feed directly into companies' costs, and strong demand allows companies to continue passing these on via higher prices.

Countries with high unionization rates, such as those in Europe and, to a certain extent, Canada, are at particular risk of bigger wage increases in the coming years. We think these concerns are legitimate but note that the passthrough to non-unionized wages and inflation tends to be lower when the economic backdrop is weaker.

We are seeing early signs of labour-market weakness. Businesses are telling survey makers that they intend to hire fewer workers and that they are posting fewer job ads. Wage growth is also slowing even though workers have yet to fully earn back their loss in purchasing power (Exhibit 2). The slowdown is particularly pronounced among lower-wage workers, who were in the shortest supply coming out of the pandemic but tend to be affected first as a recession approaches.

Exhibit 2: After inflation,wages are below March 2020 levels – Change in average take-home pay since March 2020



Note: As of May 31, 2023. Latest value for Germany is December 2022.
Source: Bloomberg, National statistical agencies, RBC GAM calculations

Our models for what bonds yields "should be" support the argument for good returns over the next year. Bonds yields are mostly at the upper estimates of what we consider fair value. In the U.S., we typically expect bonds to yield 2.50% to 3.50% over the long term, based on expected policy rates and some compensation for interest-rate risk. With the U.S. 10-year Treasury yield near 3.50% at the time of writing, we think investors are more than fairly compensated for owning bonds.

Bond yields are even more attractive in Europe, where German bund yields are at decade highs. The European Central Bank (ECB) continues to indicate its intention to hike interest rates in the face of too-high inflation. However, we

> "Debt payments that gobble up a growing share of national budgets will sap government spending, crowd out private investment and crimp consumer outlays."

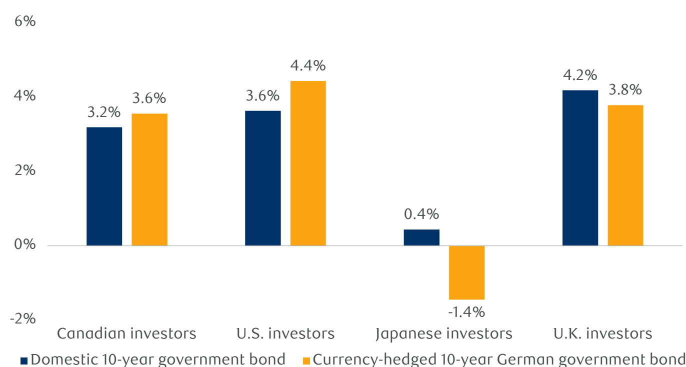
think expectations are too rosy for the European economy, which enjoyed immense fiscal stimulus last year and barely avoided recession. Investors' expectations for Europe are especially jarring compared with their views on the U.S. We do not think that investors should expect the ECB and the U.S. Federal Reserve (Fed) to keep policy rates at similar levels over the long term, as they expect now. In general, we expect the difference in long-run policy rates between the U.S. and Europe to differ based on their potential economic growth. Europe's potential GDP growth has long been below that of the U.S., and we expect this trend to continue. In addition to the potential for European yields to decline relative to other markets, Canadian and U.S. investors are well-compensated for holding European bonds, with currency-hedged bond yields more attractive than their own markets (Exhibit 3).

One country with stunningly low bond yields is Japan, where inflation is at multi-decade highs. In contrast to policymakers at other central banks, Bank of Japan (BOJ) officials have made just one modest adjustment to their framework for controlling bond yields over the past year: raising the top of the target range for the 10-year government bond yield by 0.25% last December. Wage growth has since accelerated and expectations for future inflation are rising, according to surveys. The BOJ's new governor, Kazuo Ueda, has announced a review of the current policy framework.

We expect monetary policy to eventually be normalized in Japan, but such tightening will not be easy to achieve as the country has grown dependent on rock-bottom interest rates. In fact, the Japanese financial system could face many of the same problems as those plaguing U.S. regional banks if rates start to rise. Just as surging bond yields have wiped billons of dollars from the value of U.S. banks' Treasury holdings, so would they pose a threat to Japanese banks' holdings of domestic government bonds. There are few easy options for Japan.

We would be remiss to not mention the U.S. debt-ceiling discussions. The current impasse is likely to be resolved by the time we go to press, and we expect the debt ceiling to be raised or suspended. Regardless of the outcome, the episode should serve to highlight the seriousness of the long-term fiscal challenges facing the world's largest economy.

Exhibit 3: Currency-hedged European bond yields are attractive to some



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM calculations

Thanks to the expansion of government spending over the past decade and tax cuts, the U.S. deficit before interest payments (the "primary" deficit) has ballooned to 6%-7% of GDP, up from around 3%, and the deficit is likely to expand further in the years ahead. Given rising deficits and interest costs, the Congressional Budget Office (CBO) projects that the ratio of debt to GDP will balloon within a decade and that interest payments could account for around 40% of all U.S. government spending by the middle of this century. Debt payments that gobble up a growing share of national budgets will sap government spending, crowd out private investment and crimp consumer outlays.

These fiscal concerns are not particular to the U.S. With few exceptions, many governments embarked on remarkable debt binges in recent decades, fueled by ever-lower interest rates. However, higher rates threaten to upset a growth model that has come to rely on ever more and ever cheaper debt. Substantially higher bond yields present a challenge to governments seeking to shore up long-run fiscal sustainability. In our view, this outlook bodes well for bonds as high debt loads weigh on economic growth and tighter fiscal policy constrains activity.

Direction of rates

We expect the target for the fed funds rate to fall to 4.75% sometime over the next year. The yield on the 10-year Treasury bond will be slightly lower as well, falling to 3.25% from around 3.60% at the time of writing.

United States

The Fed raised its target range for the fed funds rate to 5.00% to 5.25% in May, capping a combined 500 basis points of hiking since March 2022. With the labour market and inflation still much too hot for the liking of policymakers, we think there is a risk of further hikes over the next few months. However, while the jobs market and price rises are currently too high for comfort, there is substantial uncertainty over where the economy is headed. Based on most of our assumptions, policy is already tight. Tighter monetary policy takes time to slow economic growth, and we believe that full effect of the past year's hikes is only now beginning to be felt. The yield curve is deeply inverted and has been for over a year now. Historically, such inversions precede a recession in the U.S. by 12 to 18 months. What's more, a banking crisis spurred by deposit flight and losses on Treasury securities suggests the probability of a deep recession is higher than we would normally expect.

The U.S. jobs market already shows signs of cooling, even if the unemployment rate has not meaningfully risen. News reports of layoffs are spreading beyond technology to other areas of the economy. These developments require a more cautious approach from U.S. policymakers.

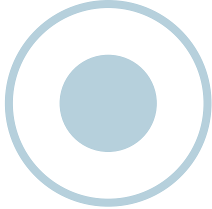
Over the course of the next year, we think an extended pause in the tightening cycle, alongside continued cooling in inflation and shallow recession, will permit an eventual easing of monetary policy. After peaking this summer, we expect the target for the fed funds rate to fall to 4.75% sometime over the next year. The yield on the 10-year Treasury bond will be slightly lower as well, falling to 3.25% from around 3.60% at the time of writing.

We see the ECB eventually cutting rates within our forecast horizon to 3.50%. Yields on 10-year German bunds, 2.45% in the middle of May, should retreat to 2.25%.

Eurozone

The ECB hiked its benchmark interest rate on May 4, as both economic activity and inflation were firmer than expected even a few months ago. Policymakers also signaled a more aggressive timeline for trimming the central bank's balance sheet. Both steps will tend to push up bond yields across the eurozone and come as European governments' borrowing needs are magnified by the extension of energy subsidies. On a longer-term horizon, we think that expectations for both policy rates and the European economy need to be pared. As in the U.S., bank lending-officer surveys indicate that rate hikes are quickly being passed on to borrowers and that demand for loans is falling. Unlike the U.S., the banking system is a much more important cog to the smooth functioning of the European economy, as a larger portion of companies rely on bank loans rather than debt and equity raised in financial markets.

While inflation in Europe remains quite hot, and wage growth is running well above a level consistent with the ECB's inflation target of 2%, we see encouraging signs that inflation has peaked. Wage demands have been much more modest than feared, and we think the pace of wage hikes could start to fall, especially as energy costs have abated. Restrictive policy rates should temper economic activity into 2024 and leading indicators indicate the economy is already cooling as the second half of this year approaches. With this in mind, we see the ECB eventually cutting rates within our forecast horizon to 3.50%. Yields on 10-year German bunds, 2.45% in the middle of May, should retreat to 2.25%.



We expect one hike in the policy rate to 0.00% from -0.10% now. A loosening of the yield-curve control framework suggests that the yield on the 10-year Japanese government bond will rise to 0.75% from 0.44% now.

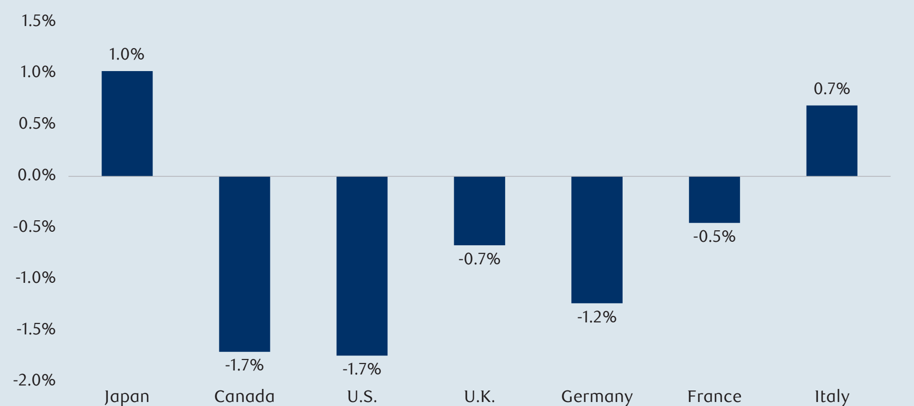
Japan

The pressure on the yield-curve control (YCC) framework has eased this year as speculators reduced bets that the BOJ would quickly make additional hikes to the target. The 10-year bond yield now sits well below the top of the target band, and BOJ intervention has subsided considerably. For the first time in several years, Japanese investors are flocking homeward to the domestic bond market. The gaping difference between the BOJ's still-accommodative policy stance and those of its developed-market peers means that currency-hedged yields on foreign bonds are very unattractive for Japanese investors (Exhibit 4). A 20-year Japanese government bond offers a yield near 1.02%, compared with a -1.70% yield on a hedged 20-year U.S. Treasury.

In April, the BOJ announced a review of the current policy framework of large-scale asset purchases and the tight control of bond yields. The launch of the review reduces the odds of a rapid normalization of monetary policy. Nevertheless, we expect the BOJ to make gradual changes to its target level for bond yields and its forward guidance. Inflation remains strong in Japan and workers received their biggest pay bump since 1992 during the important spring wage negotiations. We do not think that policymakers will handcuff themselves to the year-long review timeline if presented with clear evidence that policy should be changed more quickly.

Over the next year, we expect one hike in the policy rate to 0.00% from -0.10% now. A loosening of the yield-curve control framework suggests that the yield on the 10-year Japanese government bond will rise to 0.75% from 0.44% now.

Exhibit 4: Foreign government bond yields are lower than Japanese ones – Japanese 20-year government bond yield versus currency-hedged yields of select other government bonds



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM calculations

We forecast the policy rate will reach 5.00% in 2023, before the BOC cuts the policy rate to 4.00% sometime in 2024. We expect the Canadian 10-year government bond yield will fall to 2.75% over the next 12 months.

Canada

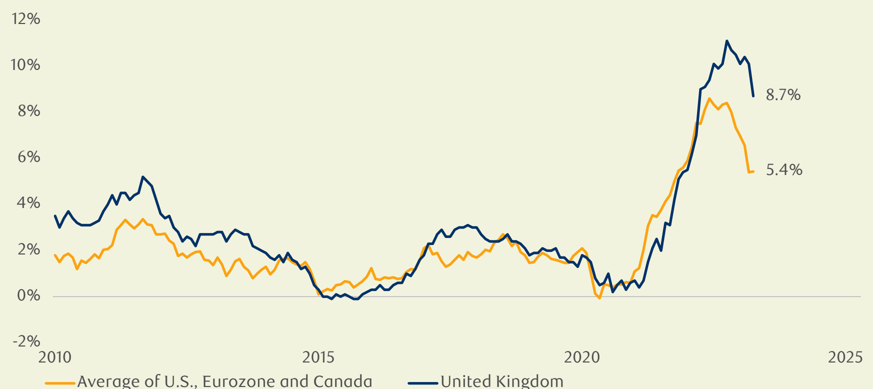
The Bank of Canada (BOC) hiked interest rates yet again at its meeting on June 7, after keeping rates on hold since February. This brings the policy rate to 4.75%. We expect one further hike from the BOC this year as BOC Governor Tiff Macklem and his colleagues assess the impact of rate hikes on inflation and the economy. The Canadian economy remains surprisingly resilient given strong population growth from immigration and government spending. However, a tight labor market and sustained 4% to 5% wage growth are not consistent with achieving the BOC's 2% inflation target, and sticky inflation, especially in services, makes policymakers nervous. Macklem has emphasized it is too early to contemplate rate cuts. That said, signs of financial stress are beginning to appear. Heavily indebted consumers are feeling the financial pain of increased monthly mortgage payments and persistently rising food prices and are tightening their belts accordingly. We forecast the policy rate will reach 5.00% in 2023, before the BOC cuts the policy rate to 4.00% sometime in 2024. We expect the Canadian 10-year government bond yield will fall to 2.75% over the next 12 months.

We expect the 10-year gilt yield to be around 3.75% in a year's time, compared with 4.18% now.

United Kingdom

The Bank of England (BOE) was the first major central bank to embark on rate hikes as inflation took off last year in the wake of the COVID-19 crisis, and we believe that the BOE will be the last major central bank to stop raising rates. In our view, the U.K. faces the most serious long-term threat of elevated inflation. The country has historically struggled with higher-than-target inflation more than its developed-market peers (Exhibit 5). Inflation has only cooled modestly over the past six months, but demands for higher wages are persistent and labour disruptions widespread.

Exhibit 5: The U.K. has typically struggled more with high inflation
U.K. yearly inflation rate versus developed-market peers



Note: As of May 31, 2023. Source: Bloomberg, RBC GAM calculations

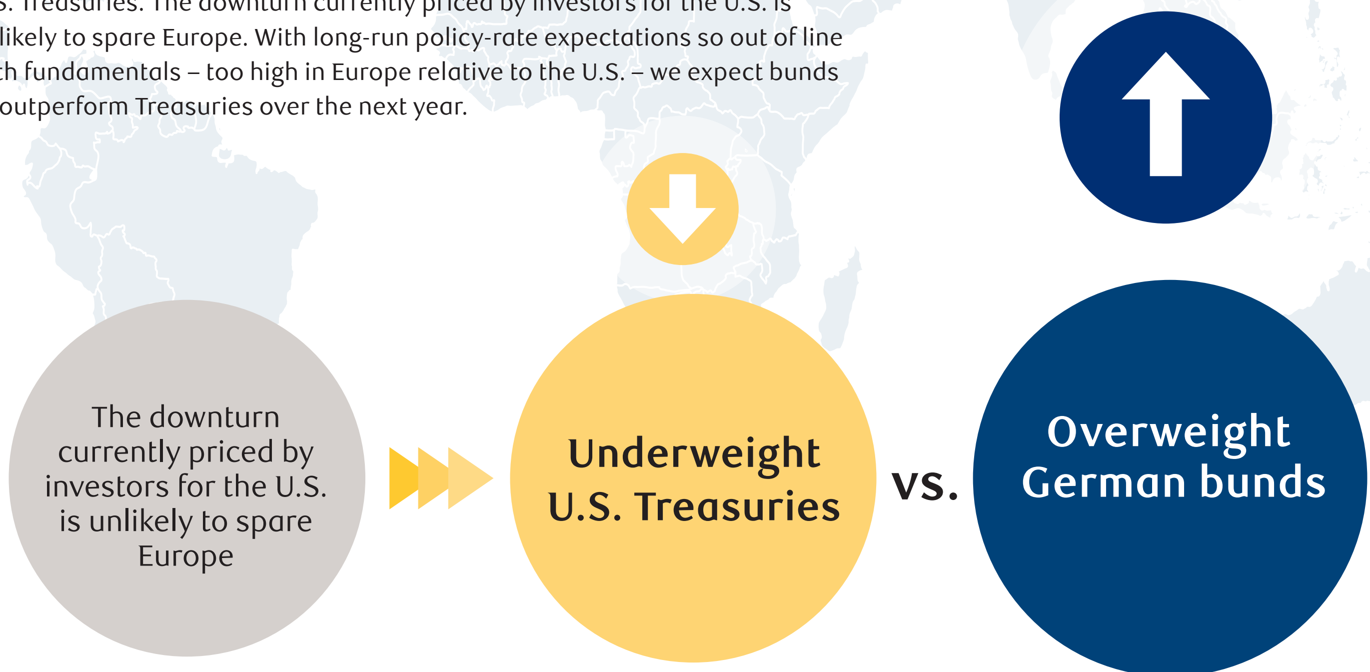
In early May, BOE Governor Andrew Bailey acknowledged that the U.K. is experiencing a wage spiral, and that policymakers are at risk of failing to prevent price rises from taking firmer root. The situation has been made worse by one of the long-term costs of Brexit – the loss of Europe as an important source of labour. The after-effects of the pandemic are also compounding what is already a bad situation as older workers and long-COVID sufferers have dropped out of the labour force.

It is important to note that the U.K.'s exceptionally strong inflation is not the result of a strong economy, and that fact makes the U.K. the most viable candidate for stagflation among G7 nations. A permanently damaged relationship with the country's most important trading partner, Europe, means that we have meaningfully lowered our expectations for the U.K. economy over the long run.

We expect concerns about inflation to keep the BOE hawkish over the better part of this year. The central bank could raise its benchmark rate to 5% before it shifts to cutting rates sometime before the middle of 2024. We forecast that the bank rate will be 4.75% in a year's time, up from 4.50% at the end of May. Moreover, the central bank is likely to be more hawkish than its peers, leading us to expect relatively poor returns for currency-hedged gilts versus other markets. We expect the 10-year gilt yield to be around 3.75% in a year's time, compared with 4.18% now.

Regional outlook

We recommend that investors overweight German bunds and underweight U.S. Treasuries. The downturn currently priced by investors for the U.S. is unlikely to spare Europe. With long-run policy-rate expectations so out of line with fundamentals – too high in Europe relative to the U.S. – we expect bunds to outperform Treasuries over the next year.



Interest rate forecast: 12-month horizon

Total Return calculation: May 31, 2023 – May 24, 2024

U.S.						
	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	4.75%	3.50%	3.30%	3.25%	3.70%	5.45%
Change to prev. quarter	(0.50%)	(1.00%)	(0.80%)	(0.50%)	(0.10%)	
High	6.00%	5.25%	4.75%	4.50%	4.30%	0.30%
Low	2.50%	2.50%	2.50%	2.50%	3.30%	9.25%
Expected Total Return US$ hedged: 6.1%						

Germany						
	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	3.50%	2.50%	2.40%	2.25%	2.25%	3.41%
Change to prev. quarter	0.00%	(0.50%)	(0.20%)	0.00%	0.05%	
High	4.50%	4.00%	3.80%	3.50%	3.00%	(3.97%)
Low	2.00%	1.75%	1.75%	1.75%	1.80%	10.81%
Expected Total Return US$ hedged: 6.1%						

Japan						
	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	0.00%	0.20%	0.40%	0.75%	1.55%	(2.91%)
Change to prev. quarter	(0.10%)	(0.05%)	(0.10%)	0.00%	(0.20%)	
High	0.25%	0.60%	0.80%	1.25%	2.30%	(12.31%)
Low	(0.10%)	0.00%	0.20%	0.40%	1.25%	1.63%
Expected Total Return US$ hedged: 1.5%						

Canada						
	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	4.00%	3.50%	3.00%	2.75%	2.90%	5.61%
Change to prev. quarter	(0.50%)	0.00%	0.00%	(0.25%)	(0.10%)	
High	5.25%	5.00%	4.25%	4.00%	3.90%	(1.42%)
Low	2.00%	2.00%	2.00%	2.00%	2.25%	11.44%
Expected Total Return US$ hedged: 6.5%						

U.K.						
	3-month	2-year	5-year	10-year	30-year	Horizon return (local)
Base	4.75%	3.25%	3.40%	3.75%	4.00%	9.95%
Change to prev. quarter	0.75%	(0.25%)	0.15%	0.25%	0.05%	
High	5.50%	4.75%	4.25%	4.25%	3.90%	8.72%
Low	3.00%	2.00%	2.00%	2.25%	3.25%	20.75%
Expected Total Return US$ hedged: 12.9%						

Source: RBC GAM

Currency markets

What new developments mean for the dollar's decline

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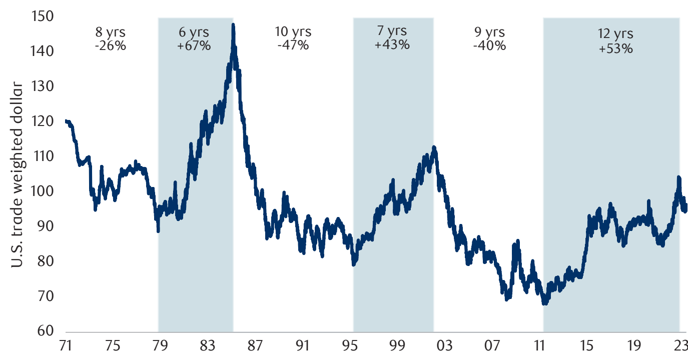
Daniel Mitchell, CFA
V.P. & Senior Portfolio Manager
RBC Global Asset Management Inc.

The U.S. dollar kept to a narrow 4% range in the first five months of 2023 in what we believe will turn out to be a pause in the currency's longer-term sell-off. Recent U.S. regional bank failures and monetary and fiscal trends support our view that the dollar will weaken, but this outlook has been challenged as the U.S. economy remained more resilient than its global peers. We retain our forecast that the greenback will fall over the next year and expect the declines to be greater than what we had been forecasting last quarter.

It is no secret that the U.S. dollar is expensive. The currency strengthened by 53% on a trade-weighted basis between 2011 and 2022 – the longest stretch of U.S.-dollar gains since currencies were unpegged from the price of gold in the early 1970s (Exhibit 1). This U.S.-dollar bull market was extended first by the pandemic and then by the U.S. Federal Reserve's (Fed) campaign to quell inflation through interest-rate increases. Since both the pandemic and Fed hikes now seem to have largely ended, investors appear in our view to be getting more comfortable with the idea that the dollar may finally crumble under its own weight. Even after a 7% decline since October, the greenback remains more than 20% rich based on purchasing power parity (Exhibit 2), an extreme level of overvaluation that is mirrored by most other models.

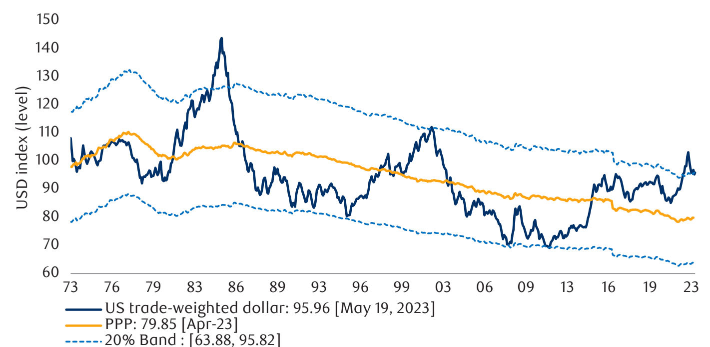
Exhibit 1: U.S. trade-weighted dollar



Note: As at May 19, 2023. Source: Bloomberg, U.S. Federal Reserve, RBC GAM

Exhibit 2: U.S. trade-weighted dollar

PPP Valuation



Note: Uses new Fed USD index from Dec 31, 2019 onward (USTWAFE Index).
As at: May 19, 2023. Source: U.S. Federal Reserve, Bloomberg, RBC GAM

History shows that the currency tends to travel from one valuation extreme to the other without much pause along the way. A comparison of the current decline relative to those that started in 1985 and 2002 offers some perspective on the considerable amount of dollar weakness that might materialize over the next several years (Exhibit 3).

Valuation is not the only factor suggesting a weaker dollar, and neither is the negative outlook simply about skyrocketing fiscal and current-account deficits. Other factors have been weighing on the greenback, including:

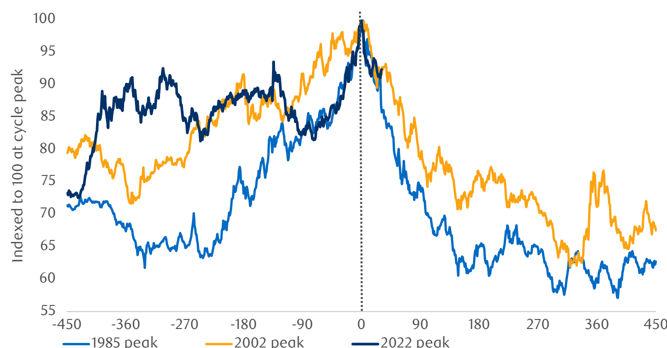
- Economic data in Europe improved for much of the spring, and there is no doubt that falling energy prices due to warmer weather and larger natural gas stockpiles have helped tremendously.
- The U.S. interest-rate advantage versus the eurozone has narrowed since the European Central Bank (ECB) began hiking rates aggressively, and the ECB is expected to outpace the Fed over the next six months. The Bank of England has also remained relatively hawkish.
- Issues involving U.S. regional banks, which may slow U.S. economic activity as lending to households and businesses is constrained. This seems to be mainly a U.S. problem, as banks elsewhere in the world are generally in better shape.
- Debt-ceiling concerns, which highlight U.S. fiscal imbalances and a fractured political landscape that inhibits sound policymaking.

These developments caused a noticeable shift in sentiment against the dollar beginning late last year, with an increasing volume of negative commentary from the press and global investment banks. Investors, voting with their wallets, recently pushed the euro above US$1.10, Bitcoin to US$30,000 and gold beyond US$2,000 per ounce. This dollar-bearishness was tested by a small rebound in May, but we don't expect this to alter the longer-term trajectory of the dollar. We note that capital continues to flow out of the U.S. and into Europe, as evidenced by eurozone balance-of-payments statistics and by purchases of European equity ETFs by U.S. investors (Exhibits 4 and 5).

De-dollarization

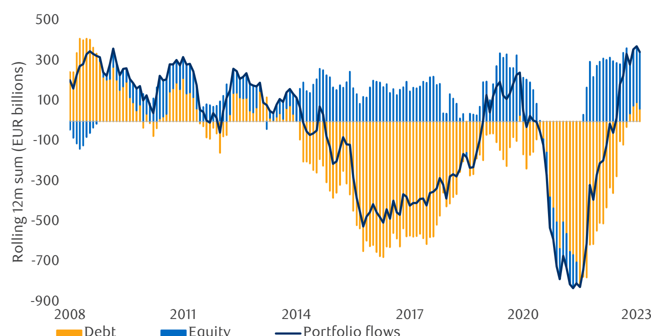
The shift in attitudes against the U.S. dollar has been widespread, and the term "de-dollarization" is becoming pervasive. The term refers to a gradual move away from

Exhibit 3: U.S. dollar has much further to fall



Note: As at May 21, 2023. Uses USTWAFE index. Source: Bloomberg, RBC GAM

Exhibit 4: Capital continues to flow into Europe



Note: As at March 31, 2023. Source: ECB, RBC GAM

Exhibit 5: Euro benefiting from strong ETF inflows

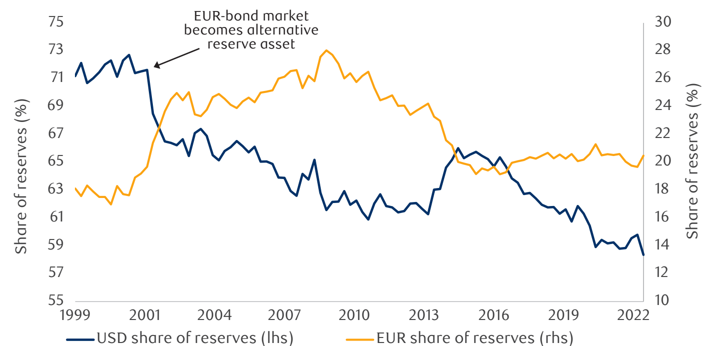
Note: As at May 26, 2023. Data from 5 ETFs VGK, EZU, FEZ, EWG, IEV.
Source: Bloomberg, RBC GAM

the greenback as the main currency for global trade and investment. China, which trails only the U.S. as the world's largest economy, is positioning the renminbi as an alternative by developing its financial system, loosening currency controls and making bond and stock markets accessible to foreigners. Progress toward this aim has been slow – it usually takes decades for a new reserve currency to emerge – but news that some oil trading is being done in renminbi suggests that the ball has started rolling.

The belief that de-dollarization has accelerated is supported by these recent developments:

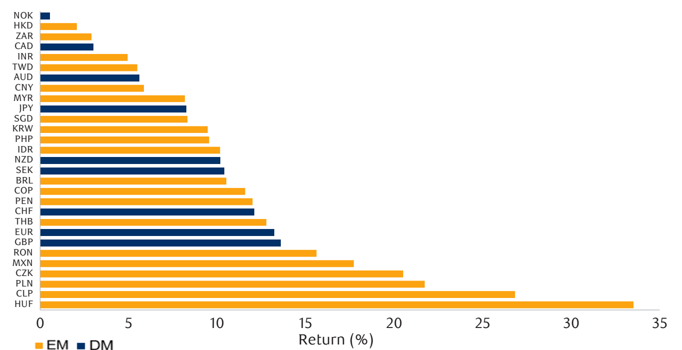
- Last year's G7 sanctions barring most Russian institutions from using U.S.-dollar-based financial payments systems and the freezing of large portions of Russia's global foreign- exchange reserves. The moves followed similar steps to isolate Iran a few years ago, when the country took steps to further develop nuclear weapons. Measures that weaponize the dollar are concerning to the world's largest holders of foreign-exchange reserves, and are part of the reason that China has developed a parallel payments system of its own.
- News that Brazil and Argentina are looking to abandon the dollar in their own bilateral trade. It's unclear how this type of arrangement might work, given that no Latin American currency appears to be a viable candidate for settling trade. However, it is conceivable that the Chinese renminbi could be used in this way within Asia. Strengthening trade ties among Asian countries and the region's huge foreign-exchange reserves mean that progress on this front would have an impact on currency markets.
- Eroding faith in the U.S. dollar as a store of value. Some investors are questioning whether the greenback deserves to be the primary currency on which the global financial system is built given the country's large fiscal deficits, funded in part by Fed bond purchases, and a growing reliance on international creditors.
- The mounting pile of evidence that the U.S. dollar is gradually losing its appeal, as evidenced by the IMF's quarterly report showing that the dollar has lost share in global foreign-exchange reserve portfolios (Exhibit 6). The drop in reserves coincides with the development of the single-currency bond market in Europe, which provided a viable alternative.

Exhibit 6: U.S. dollar share of global reserves continues to fall



Note: As at December 31, 2022. Source: IMF, RBC GAM

Exhibit 7: All currencies gain vs. the weak U.S. dollar



Note: As at May 26, 2023. Data since October 21, 2022. Source: Bloomberg, RBC GAM

There is no doubt that this fall in the U.S. dollar's share represents a long-term headwind to the greenback, but the simple truth is that the dollar is likely to remain the world's primary reserve currency for many years to come. No other country offers the combined advantages of free capital flows, established rule-of-law, deep financial markets and structural current-account deficits. The greenback's position is so well entrenched that exporters and importers must still use the U.S. dollar as a go-between when invoicing trade and making payments in one another's currencies. The Bank for International Settlements reports that 88% of all currency transactions involve the greenback. In any case, it appears that the de-dollarization theme has contributed to some

short-term weakness, but we view the issue as a longer-term one for the greenback and one that will be persistent throughout U.S. dollar bull and bear markets.

Emerging Markets

We think that most emerging-market currencies will continue to appreciate versus the dollar, but perhaps less so than in recent quarters. Since the dollar's peak in October, all currencies have benefited from U.S.-dollar weakness, but emerging markets have generally outperformed (Exhibit 7). Some emerging-market currencies have posted returns in excess of 20% over the past year, led by high-yielding cyclical ones such as the Mexican peso and the Hungarian forint. The same cannot be said for G10 currencies, where the cyclical Norwegian, Canadian and Australian currencies have been among the weakest in the world.

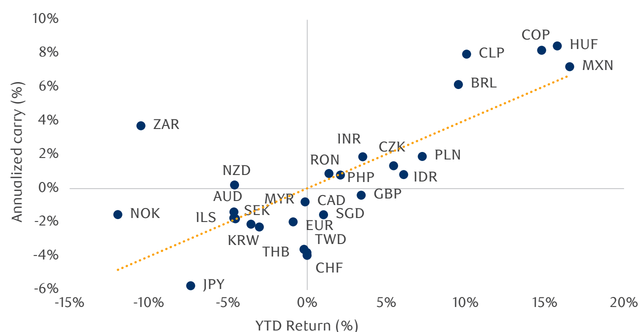
One reason why emerging-market currencies have fared so well is that their central banks were quicker to raise interest rates than the Fed when inflation began to flare, and were more aggressive in doing so. A clear relationship exists between the level of yields and the performance of currencies, owing largely to the influx of capital attracted to higher rates (Exhibit 8). This link is particularly strong at a time of stable risk appetite and low volatility, where traders assign a low likelihood of currency depreciation that would offset the higher yields that they earn while invested in these currencies.

Having said this, we are particularly attentive to the reaction of central banks as inflation starts to fall (Exhibit 9). To date, monetary authorities have earned credibility by keeping policy tight, but a few have hinted that interest-rate cuts are on the horizon, including in countries where inflation remains at double-digit levels. The independence of most emerging-market central banks is not nearly as well established as it is in developed markets, and there is increasing pressure from politicians to ease policy in support of economic growth, even if it comes at the expense of higher inflation. For this reason, we have become more cautious on emerging-market currencies as valuations become less attractive (still cheap, but less so) and as hard-won policy credibility comes under threat.

Euro

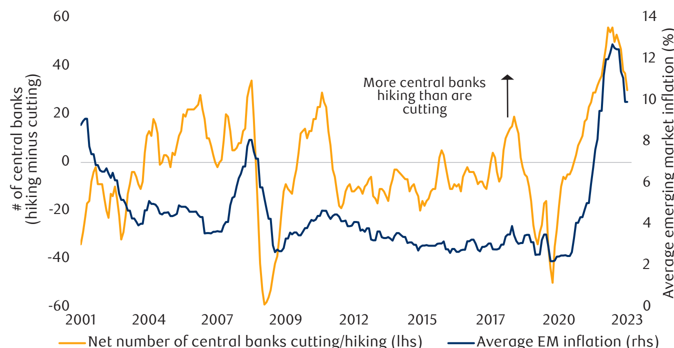
The euro has kept mostly to a range of US$1.05 to US$1.10 this year, one of the narrowest on record (Exhibit 10), and

Exhibit 8: Strong relationship between yield and FX performance



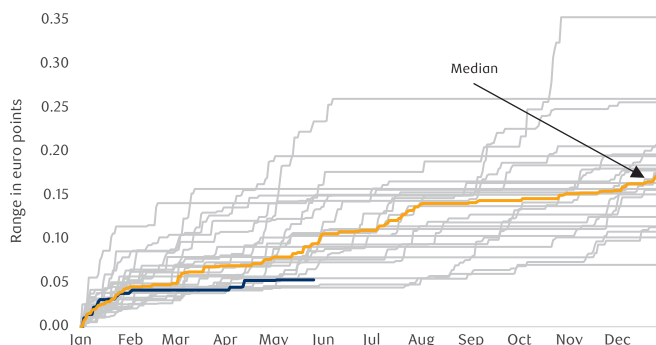
Note: Data as at May 26, 2023. Source: Goldman Sachs, Bloomberg, RBC GAM

Exhibit 9: Central-bank reaction function important as inflation begins to fall



Note: As at April 30 2023. Source: Macrobond, RBC GAM

Exhibit 10: Euro trading at one of the tightest ranges on record



Note: As at May 26, 2023. Source: Deutsche Bank, Bloomberg, RBC GAM

we believe the euro at some point will strengthen toward the upper end of the range. Our expectation that the euro will gain is about more than just overall weakness in the dollar. The view is also based on a convergence of short-term interest rates between regions as the ECB continues to increase rates while the Fed remains on hold. European policymakers are likely to be especially ardent about tightening policy because the prevalence of unions in the region makes it tougher for them to slow wage growth, a key ingredient of inflation. With spreads on bonds of southern European countries well contained and European banks not faced with the deposit flight plaguing U.S. banks, the ECB can afford to be persistent in raising rates further.

To date, growth has held up surprisingly well in Europe, owing largely to falling energy prices and disbursements made from Europe's 723 billion-euro pandemic emergency fund, though economic data softened somewhat during May. Lower energy prices, a stable banking industry and higher interest rates have all helped generate foreign interest in European assets. Even after recent outperformance, European equities remain cheap, and the undervaluation is magnified by the fact that the euro trades well below its fair value. With this migration of global capital to Europe, we think the euro can rise to US$1.20 within the next 12 months.

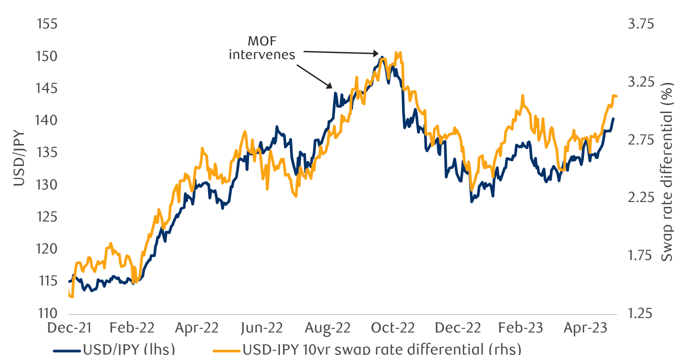
Japanese yen

The yen has dropped 7% since the beginning of the year. The Japanese currency's link to differences in bond yields remains strong, and with U.S. interest rates staying elevated and the Bank of Japan (BOJ) capping yields, the yen underperformed peers. Expectations that the BOJ would allow longer-term interest rates to rise were dashed when new Governor Kazuo Ueda remained true to his predecessor's preference for holding down interest rates. Most traders expect that the BOJ will allow interest rates to rise later this year. The government announcement of fiscal stimulus could provide allowance for the BOJ to tighten even sooner.

Other yen-supportive themes that are likely to be in focus this year include:

- Japan's largest life insurers are shifting into domestic assets from foreign ones, and in the process of liquidating foreign assets convert at least some of the proceeds into yen. Not all of the foreign assets being liquidated are currency-hedged, so the impact of the shift results in actual demand for the Japanese yen.
- Demand for safe-haven currencies such as the yen would likely materialize if the global economy worsens more than expected.
- Currency intervention by the Ministry of Finance, which has become more relevant as the currency revisits levels where authorities last propped up the yen. (Exhibit 11)
- Japan's generally positive and high current-account surplus.
- Significant undervaluation.
- Short yen positions are higher than what one might expect given a negative outlook for the U.S. dollar.

Exhibit 11: Yen falls to level that attracted government intervention



Note: As at May 26, 2023. Source: Macrobond, RBC GAM

We forecast a significant gain in the yen to 116 per U.S. dollar from the current level of 140. The degree to which we expect the yen to outperform over the next year relies heavily on our expectation of a pivot from the BOJ, but the currency should nonetheless benefit from the end of the Fed's rate-hiking cycle and the overall decline in the dollar.

British pound

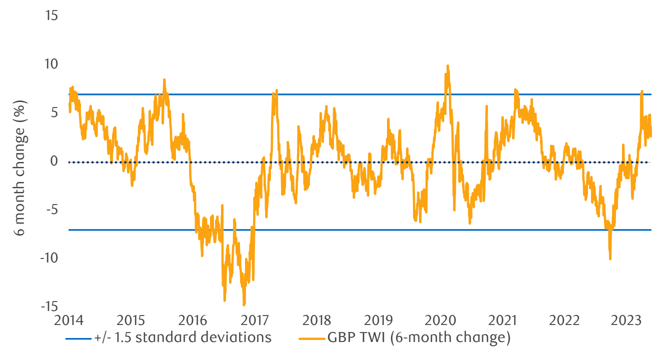
Against our expectations, the pound has been one of the better performing G10 currencies since the dollar peaked last fall, but we are skeptical that sterling can continue to outperform its peers even if it manages to rise against the U.S. dollar. On a shorter-term horizon, the pound's strength looks stretched (Exhibit 12), pushed higher perhaps by seasonality in April, historically the most positive month for the currency, and by higher-than-expected inflation that increased the number of times that investors now expect the Bank of England (BOE) to raise interest rates. In the longer term, the U.K.'s higher inflation is problematic because the economy (the only one in the G7 whose GDP hasn't reclaimed pre-COVID levels) will be challenged by the elevated level of interest rates needed to rein in prices. Higher yields may in fact be here to stay because the BOE has over the past few decades developed a reputation for tolerating an average level of inflation that has been higher than other major economies. We expect that the pound will underperform most of its G10 peers and see the currency rising only marginally versus the U.S. dollar to US$1.30.

Canadian dollar

We believe the Canadian dollar will appreciate against its U.S. counterpart over the next year but have tempered our outlook somewhat. The lower degree of optimism reflects concerns about the impact of higher interest rates and the high sensitivity of Canada to the slowing U.S. economy (Exhibit 13). To be fair, the Canadian economy has remained remarkably stable in recent months amid fears about a drop in Canadian house prices and a U.S. economic slowdown. Jobs in Canada remain plentiful and consumer confidence has rebounded from 2022 lows, but exports and industrial activity have started to show weakness.

Even with this weakness, we believe the Bank of Canada (BOC) will be vigilant on inflation and is thus likely to hold rates at levels that would tend to support the loonie later in

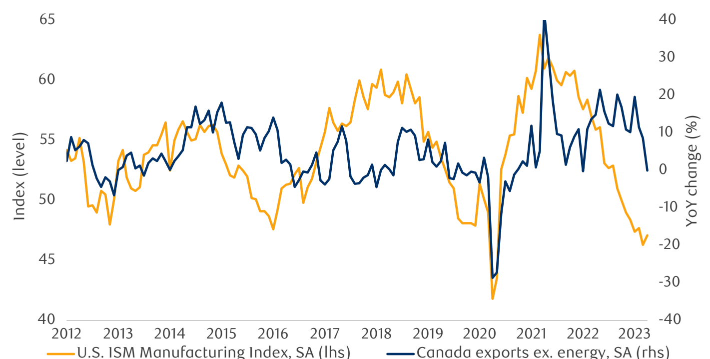
Exhibit 12: Pound appears streched



Note: As at May 26, 2023. Source: Bank of America, Macrbond, RBC GAM

> "We remain relatively downbeat on the pound, which should strengthen versus the dollar but is likely to underperform its peers."

Exhibit 13: Slower U.S. growth weighs on the Canadian economy



Note: As at April 30, 2023. Source: Credit Suisse, Macrobond, RBC GAM

the year. The BOC opted early in 2023 to hold rates steady for a time, a policy that differed from the Fed's continuous hikes. But past hiking cycles have shown that the U.S. central bank tends to hike interest rates to over-restrictive levels and is subsequently forced to cut quickly when the economy inevitably falters. In that sense, the BOC appears more prudent, especially in light of the Fed's willingness to keep hiking rates amid a banking crisis and debt-ceiling uncertainty.

Among the positives for the loonie are high levels of immigration (one million new Canadians in 2022), a healthy banking industry, strong commodity prices and what we believe will be the trend of a falling U.S. dollar. The Canadian dollar has kept to a range between $1.32 and $1.40 since last fall, trading sideways even as the U.S. dollar weakened against most other major currencies (Exhibit 14). Some of this Canadian-dollar underperformance stems from concerns about the housing market and high household debt, which have prompted investors, particularly those abroad, to bet on declines in the currency. We see the loonie appreciating to $1.26 per U.S. dollar over the next 12 months as investors continue driving down the greenback and fears about Canadian housing ebb.

Conclusion

The U.S. dollar has lost ground against all G10 and emerging-market currencies since its peak last October. Our view is that the dollar could fall significantly over the next few years, and several new considerations have emerged to buttress our negative view of the greenback. In addition to the dollar's overvaluation and a high dependence on foreign funding, the contentious debt-ceiling negotiations and recent bank failures highlight U.S.-specific issues that may continue to drag the greenback lower over the next few years. High-yielding emerging-market currencies have rallied the most in this period of U.S.-dollar weakness, but the outperformance could quickly reverse if emerging-market central banks cut rates pre-emptively.

Within developed markets, we think the yen likely has the most to gain, having recently cheapened to levels where the BOJ intervened last year. We have bumped up our euro forecast to US$1.20 from US$1.18 this quarter as European economic fundamentals improve and as the single currency remains the purest play on U.S.-dollar weakness. We have also tempered our optimism on the loonie by changing our forecast to $1.26 from $1.23 on the likely impact of slower U.S. economic growth. Finally, we remain relatively downbeat on the pound, which should strengthen versus the dollar but is likely to underperform its other peers.

Exhibit 14: Loonie trading in a tight range

Note: As at May 30, 2023. Source: Bloomberg, RBC GAM

Regional outlook – United States

Brad Willock, CFA
V.P. & Senior Portfolio Manager
RBC Global Asset Management Inc.

U.S. stocks, measured by the S&P 500 Index, rebounded to finish the three-month period ended May 31, 2023, up 5.8%. The better-than-average quarterly gains were driven primarily by the emergence of artificial intelligence as an investment theme and the exceptional performance of companies that investors think will benefit most from the expanded use of AI. The exceptional performance of AI-related stocks more than offset the impact of the failures of three sizeable regional banks, stubbornly high inflation and the continuation of the U.S. Federal Reserve's (Fed) most aggressive rate-hiking cycle since the early 1980s. It was a remarkable period.

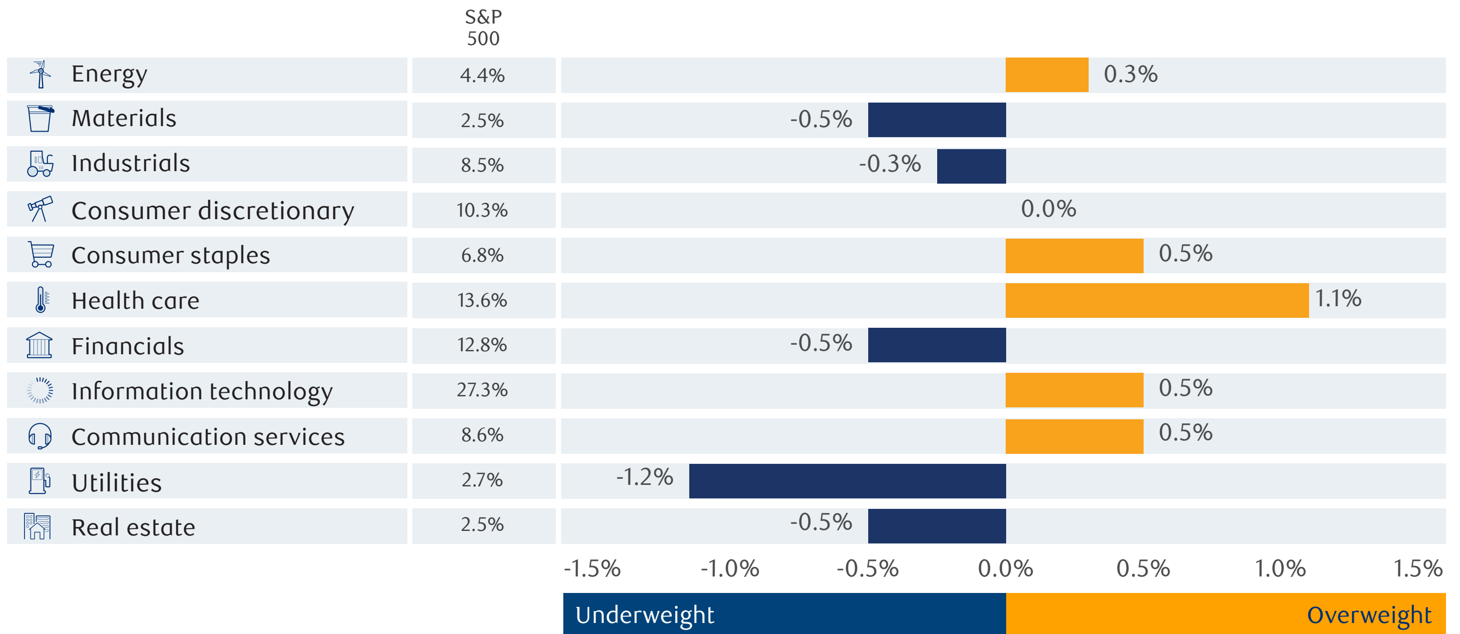
Let's begin with the regional banks. The troubles surfaced on March 8, when Silicon Valley Bank (SVB) announced it would book a US$1.8 billion loss after selling some investments to cover increasing withdrawals. The announcement sparked panic among depositors and SVB stockholders, and by the morning of March 10, depositors had attempted to withdraw US$42 billion. The stock was halted and soon after federal regulators announced they had taken control of the bank. It was the second-biggest bank failure in U.S. history by assets after Washington Mutual's collapse during the 2008 financial crisis.

Worries about SVB spread, and federal regulators unveiled emergency measures and announced they had taken control of a second bank, Signature Bank of New York, the third-largest bank failure in U.S. history. On April 7, First Republic, with its stock down roughly 90% since the collapse of SVB, suspended its dividend and revealed it had lost US$100 billion of deposits in March following the collapse of SVB. By May 1, federal regulators had seized First Republic and struck a deal to sell the bulk of its operations to JPMorgan Chase. Historically, the consequences of such a crisis are that banks will typically lend less over subsequent quarters, resulting in lower earnings and a worse growth outlook for the economy. There is no way to know how big an impact the regional-bank crisis is likely to have but, given that regional banks are major lenders to small and medium-sized business and in commercial real estate, we expect these areas to have significantly slower growth over the next several quarters, increasing the odds of a recession.

The regional-banking drama wasn't the only headwind for stocks as consumer price inflation remained stubbornly high. Inflation probably peaked last summer at 9.1% and dropped to 4.9% in April, still well above the Fed's 2% target. While goods prices have fallen and gasoline prices are in retreat, the main driver of services inflation, wage growth, is running at roughly 5%.

The bottom line is that the labour market is tight and inflation has been high enough for long enough that the Fed will have to hold rates higher for longer to bring inflation back to its target. Investor expectations of several Fed rate cuts in the second half of the year have been tempered, as consumer

United States – Recommended sector weights

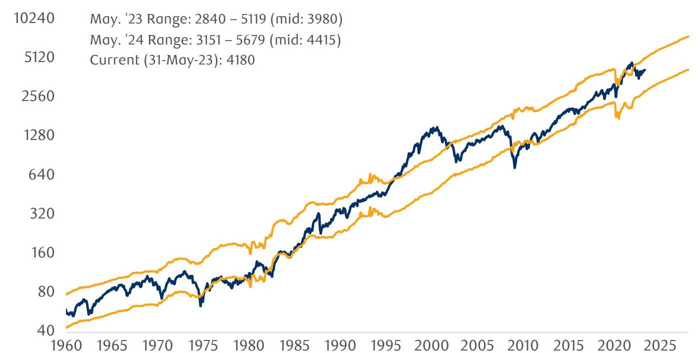


Note: As of May 31, 2023. Source: RBC GAM

> “We believe that the productivity-enhancing potential of the technology is real and that a powerful adoption wave is just beginning.”

S&P 500 Equilibrium

Normalized earnings and valuations



Source: RBC GAM

spending remains resilient and the unemployment rate sits at a 54-year low. Inflation is proving sticky in part because households and businesses are less interest-rate-sensitive than in the past. Most households hold fixed-rate 30-year mortgage debt refinanced at rock-bottom rates in 2020-2021. American companies also took advantage of super-low rates during the early part of the COVID crisis to extend the term of their debt. For both, the interest burden is near multi-decade lows, blunting the impact of higher interest rates on the economy. So, while it is true that higher mortgage rates have hurt housing activity, the hit to GDP has been roughly 2% compared with a 7% hit between 2006-2010.

The emergence of AI as an investment theme was a significant driver of returns during the period. The unprecedented success of the AI application ChatGPT has created a great deal of excitement among users and investors alike. One market pundit proclaimed the launch of ChatGPT last fall as "a turning point for humanity, for better and worse." Others have expressed concerns about AI's potential to eliminate jobs. We believe that the productivity-enhancing potential of the technology is real and that a powerful adoption wave is just beginning. In addition, investors should be mindful that when it comes to revolutionary technologies, such as the mainframe computer, PCs, the internet, e-commerce, etc., investors usually get the direction right but tend to overestimate the pace of change and the number of companies that will benefit. We are on the lookout for obvious signs of excess.

That brings us to where we stand today. At roughly 4200, the S&P 500 is trading almost exactly where it was a year ago. The consensus estimate for aggregate S&P 500 earnings for the next 12 months is US$230, implying a valuation of 18.3 times that estimate. We have increased the odds of a recession because we believe that turmoil in the banking industry is likely to lead to slower economic growth and weaker earnings. On the upside, we believe the capital expenditures and a near-term productivity boost from AI could help to mitigate some of the pressure on corporate earnings. We believe equity investors are anticipating a mild economic downturn with a decent rebound in earnings later this year and into next year. As a result, we maintain a relatively balanced position with a slight defensive bias toward the Health Care sector and a preference for high-quality companies that generate plenty of free cash flow.

Regional outlook – Canada

Sarah Neilson, CFA
V.P. and Senior Portfolio Manager
RBC Global Asset Management Inc.

Irene Fernando, CFA
V.P. and Senior Portfolio Manager
RBC Global Asset Management Inc.

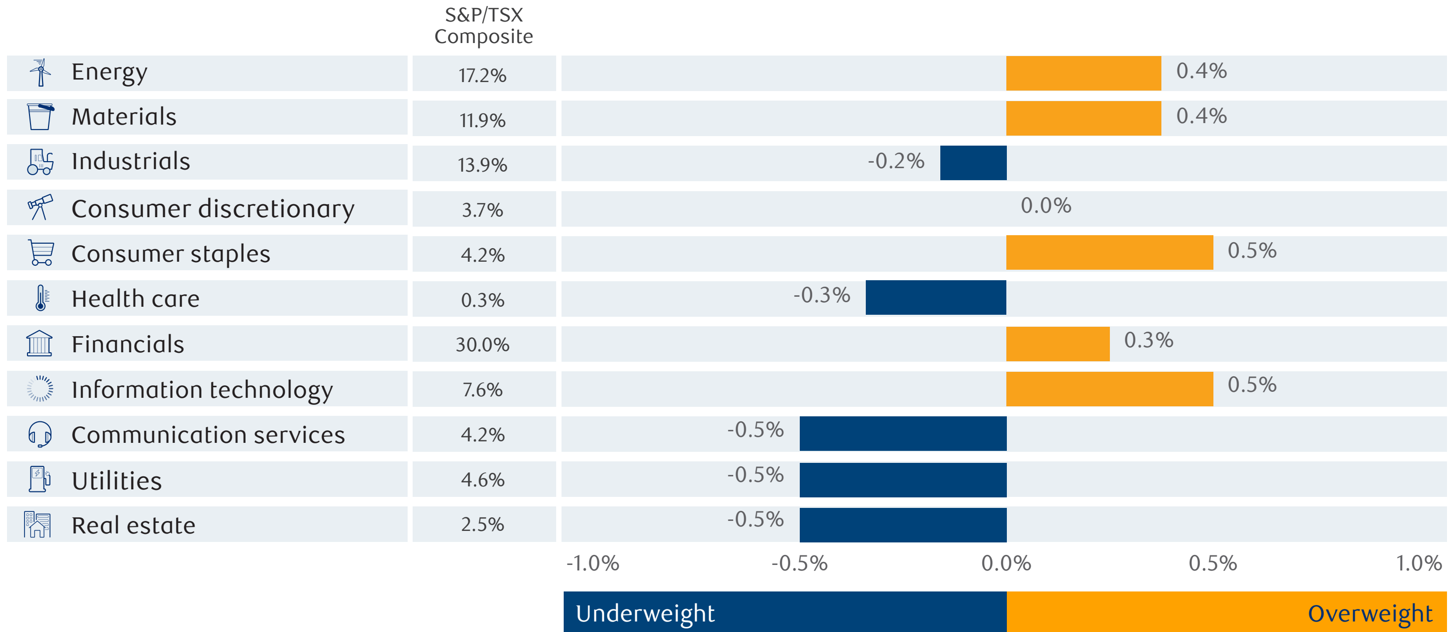
Following a strong start to 2023, Canada's stock benchmark lost 2.4% on a total-return basis over the three months ended May 31, 2023. In U.S.-dollar-terms, the S&P/TSX Composite Index lost 1.9%, lagging the S&P 500 Index, which advanced 5.8%, and the MSCI World Index, which gained 3.9%. Between January and May, the Canadian benchmark gained 2.3%.

Investors continue to focus on macroeconomic factors including inflation and interest rates, but recent data points do not yet suggest a conclusive path for equities. Inflation continues to moderate, leading to expectations that central banks are nearing the end of a series of rapid interest-rate hikes. Economists continue to factor in a high probability of a recession due to tighter fiscal policy, although equity markets appear to be reflecting a lower chance the economy will slow significantly. The accelerated rise in interest rates over the past year, a total of about four percentage points, has caused stress in some parts of the economy. Most acute is the impact on the banking industry, as high interest rates reduced the value of bond holdings at U.S. regional banks, prompting depositors to pull their funds. Ultimately, the pressure on the banking system is expected to tighten financial conditions and further decrease economic activity.

Canada's annual inflation rate has fallen to 4.4% from as high as 8% last year, helped by lower energy costs. Even so, mortgage-interest costs are up 28.5% year-over-year and prices for services and food continue to rise significantly, resulting in an inflation rate that is above the Bank of Canada's (BOC) target of 2%. The BOC recently raised its benchmark interest rate by another 0.25% to 4.75%, noting that inflation remains 'stubbornly high' and that demand is persistent in the Canadian economy. Going forward, the BOC remains focused on driving inflation towards its target of 2% and will be looking for signs of economic and labour slowdown to determine future rate decisions. The BOC is projecting that inflation will fall to 3% by mid-2023 due to lower energy prices, the easing of supply-chain disruptions and the negative impact of higher interest rates. However, a persistently tight labour market and fast wage inflation continue to support the economy and may increase expectations that rate hikes are not over. Forecasters expect the BOC to deliver another 25-basis-point hike later this year. Economists anticipate that Canada's economy will expand 1.0% in 2023, down from 2022 growth of 3.4%, and then rise to 1.2% in 2024.

The BOC has noted that consumer spending and exports continue to support excess demand in the Canadian economy. Equity returns will ultimately depend on the severity and length of a recession if one materializes and the trajectory of corporate-earnings growth that result from a more significant slowdown.

Canada – Recommended sector weights

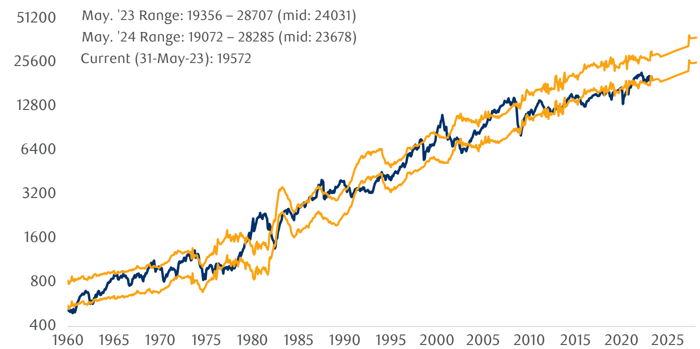


Note: As of May 31, 2023. Source: RBC GAM

> “The recent period of higher inflation has proven to be positive for revenue growth in many sectors.”

S&P/TSX Composite Equilibrium

Normalized earnings and valuations



Source: RBC GAM

Canada's housing market is beginning to show signs of bottoming after a year-long slump due largely to the impact of higher mortgage rates. Demand in many markets has picked up, with sales up 11.3% in April from the previous month and home prices gaining 1.6%, although prices are down 12.3% from a year earlier.

Information Technology stocks have been the strongest performers in the Canadian market so far in 2023, after ranking last in 2022. Shopify, the sector's biggest weight, drove much of the move after it signaled a renewed focus on its core ecommerce strategy and sold its logistics arm. Defensive sectors such as Utilities and Consumer Staples continue to attract investment flows, pushing valuations above historical averages. Performance in the Materials sector was flat, as weakness in agriculture and lumber was offset by strength in gold equities, which benefited from a rise in the price of gold to above US$2,000 an ounce for the first time in three years.

Returns were also aided by copper-industry mergers and acquisitions amid expectations for growth in long-term demand. The Financials sector, which accounts for 30% of the Canadian benchmark stock index, came under pressure in the wake of the volatility affecting U.S. regional banks. The Energy sector, last year's leader, was a laggard driven by weakness in prices for both crude oil and natural gas on concern that a recession had become more likely.

Aggregate earnings for companies in the Canadian benchmark index are forecast to decline by 6% in 2023, and then rise 10% in 2024. Falling prices for energy and other commodities, and projections of lower bank profits have driven the negative outlook for this year. The recent period of higher inflation has proven to be positive for revenue growth in many sectors. However, as sales growth slows, the burden from higher costs will start to hurt earnings in the coming quarters. The TSX is currently trading at 12.9 times forward earnings, recovering from last year's lows, but it remains below its 14.5 long-term average. The TSX's discount to the S&P 500 has widened owing in part to the large weighting of banks and cyclical sectors such as Energy and Materials in the Canadian benchmark.

Bank stocks declined 11% in the three-month period, underperforming the S&P/TSX. The banking group trades at 9.5 times forward earnings, a 14% discount to its longer-term average, reflecting the slowing economy and concern about the rising odds of a recession. Pressure on banks to offer higher interest on deposits and growth in expenses drove down earnings estimates following the release of quarterly earnings. The consensus expectation now is for bank earnings to decline 2.7% in the fiscal year ending in October, in part reflecting higher provisions for credit losses, compared with expectations of a 2.3% increase earlier this month. Earnings are also being squeezed by higher funding costs and operating expenses. Banks are choosing to operate with higher capital levels and liquidity in the uncertain macroeconomic environment, putting further pressure on profitability. In our view, the sector should continue to trade at a discount to history absent any change in the macroeconomic outlook.

The decline in the Energy sector during the three-month period reflected the uncertain outlook for the economy and the potential for oil demand and prices to fall further should a recession occur. North American oil prices have dropped 10% since the beginning of the year and natural-gas prices by 43%. As a result, North American producers are slowing output growth, helping to balance supply with waning demand and the potential for economic weakness. OPEC, the world's largest oil-producer group, has so far supported crude prices by limiting supply. Crude-oil prices will remain volatile as investors balance the positive force of persistent demand with the potentially negative repercussions of any eventual recession.

Regional outlook – Europe

David Lambert
Senior Portfolio Manager and Head
RBC Global Asset Management (UK) Limited

One of the biggest concerns for investors in European equities is the health of the region's banks in the wake of the government-arranged takeover of Credit Suisse and problems at U.S. regional financial institutions. Our view is that the landscape in the Financials sector has not changed that much. In fact, developments over the past few months appear to validate the cautious approach taken by European bank regulators in recent years. Their refusal to accede to calls for the relaxation of rules that have stifled bank profitability suggest they got it right.

Casting our minds back to the last major crisis in 2008, it becomes clear that the recent bank sell-off has been driven primarily by good old-fashioned fear. Banks are financial black boxes, and we don't really know what goes on inside. The banks' held-to-maturity portfolios and, in some cases, concentrated deposit bases (recall Silicon Valley Bank's reliance on the technology industry) mean portfolio managers are forced to make investment decisions based on their assessment of management and risk teams. Investor caution is in order given the industry's financial complexity and memories of the last financial crisis involving bank failures and investor panic. We believe the risk premium associated with them will remain elevated for some time.

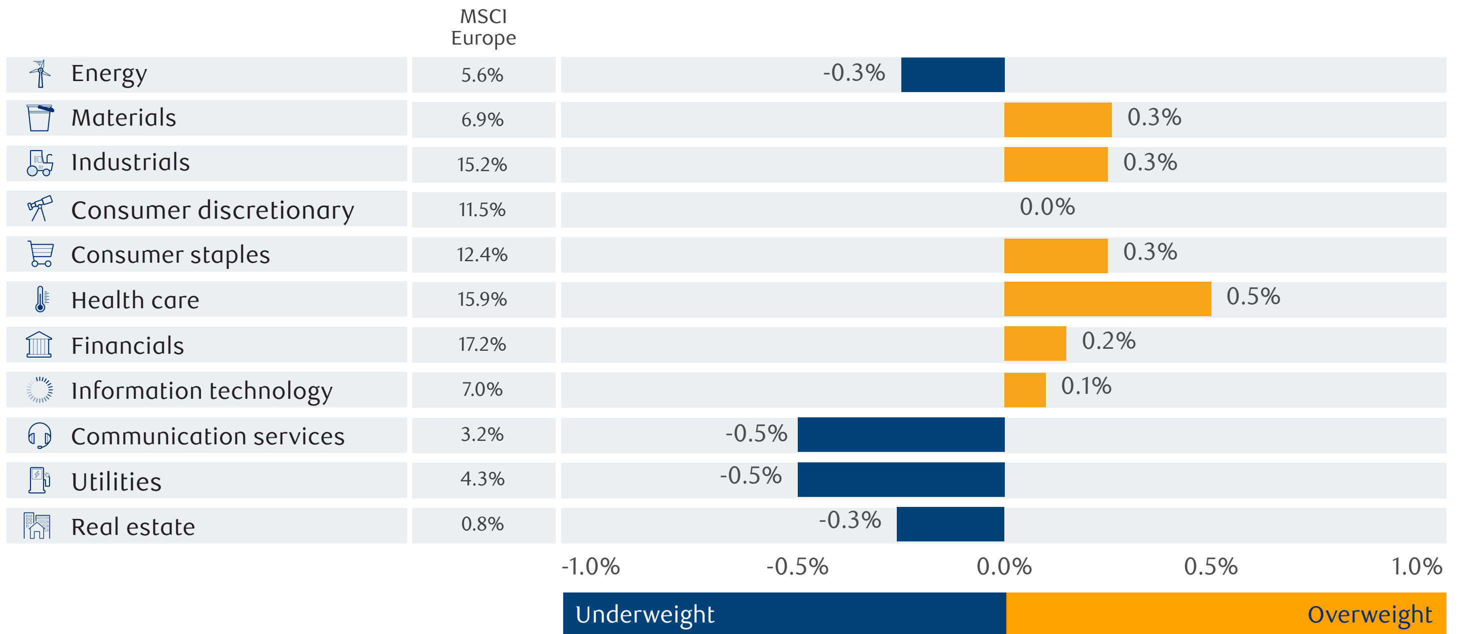
We are a little nervous about the potential for significant loan losses over the next few years, as small and medium size enterprises renew their bank funding at much higher interest rates. We have been through a long period of "free money," and it will become apparent where banks made mistakes in who they lent to and how much.

In this environment, our earlier view that banks would reap the benefits of rising rates for a few more quarters is looking less certain. Banks could face pressure to raise the interest rates they offer on deposits and rising loan losses. We note that most banks have strong capital positions, and their valuations have fallen to levels that appear to reflect the recent turmoil. Banks make up a larger share of the overall market in Europe than they do in the U.S., and European banks will have to outperform if European markets are to outperform the U.S. overall.

From a broader market perspective, it is clear that some European leading indicators are turning down. One indicator decreased to a 30-month low in April, suggesting that the economy is slowing. Economic indicators, however, have been volatile over the past six months, and it is difficult to get a sense of what they are telling us about the direction of the regional economy. As a result, no sector has shown leadership in being able to break out and lead the stock market higher. During slowdowns, high-quality, low-risk large-cap growth companies tend to lead the market.

The onset of an economic slowdown suggests that the recent underperformance of defensive stocks may be coming to

Europe – Recommended sector weights

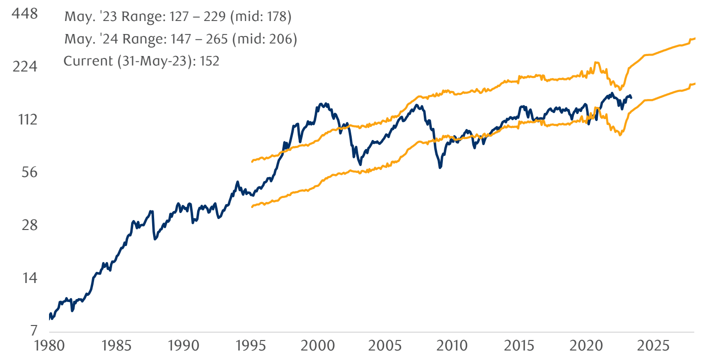


Note: As of May 31, 2023. Source: RBC GAM

“European equities continue to trade at extreme discounts in a historical context versus the U.S.”

MSCI Europe Index Equilibrium

Normalized earnings and valuations



Source: RBC GAM

an end, specifically in the Consumer Staples, Utilities and Health Care sectors. We expect these defensive companies to outperform for now. On the other hand, shares of economically sensitive areas such as autos, construction, chemicals and capital goods appear to be stalling consistent with the slowdown stage of the economic cycle.

One observation we would make is that Europe's relative underperformance versus the U.S. in recent times has occurred during a period of exceptionally low interest rates, and we wonder whether the tide is about to turn.

Rising interest rates mean that the valuation gap between growth companies, which are often more concerned with revenue growth than profitability, and more value-orientated companies, which produce cash today, has narrowed. Europe is a more valued-oriented market, and we believe therefore that we may be returning to a period where the valuation gap between the two comes in.

European equities continue to trade at extreme discounts in a historical context versus the U.S. We would never argue that valuations for European stocks should be as high as their U.S. counterparts, but we believe the current 30% discount should narrow to historical levels closer to 20%.

What may be different this time around? The first thing is that the makeup of European equity markets looks to be changing from lower-quality businesses such as telecoms and banks to higher-quality businesses such as luxury goods and semiconductors. This shift has occurred in other regions, but Europe has been behind the curve. Moreover, the pandemic and the war in Ukraine are also having an effect in that these events prompted the movement of production and critical infrastructure closer to home, heralding a surge in capital expenditures. We may have seen the end of the mega-cap technology outperformance cycle that was catalyzed by the era of low interest rates.

Our exposures at a sector level remain fairly balanced, although we have of late shifted toward lower-risk companies with more dependable earnings. While leading indicators have weakened, companies are generally still exceeding analysts' earnings expectations and delivering earnings growth. Low valuations relative to both Europe's history and to other major markets provide a solid footing for the equity market as a whole.

Regional outlook – Asia

Chris Lai
Portfolio Manager, Asian Equities
RBC Global Asset Management(Asia) Limited

Asian equities fell 1% in U.S.-dollar terms in the three months ended May 31, 2023. Japanese stocks outperformed given solid economic trends in consumption, tourism and manufacturing. South Korea also outperformed, led by auto exports and signs that declines in demand for memory chips have bottomed. China and Hong Kong underperformed on concern that the economic recovery will be crimped by a recent wave of COVID-19 cases.

Asian central banks appear to have largely completed their rate-hiking cycles, and we expect them to begin easing as soon as later this year. Overall, regional growth weakened in the first half of 2023 given a slowdown in exports to Europe and decreased manufacturing demand as companies worked down inventories. We expect the economy to strengthen in the second half of 2023 reflecting a rebound in Chinese growth, with the caveat that tighter financial conditions in the U.S. are a risk to Asian growth.

Japan

The Japanese economy is forecast to expand 1.1% in 2023, compared with 1.0% in 2022. Manufacturing activity remains lackluster, and with the rising risk of a U.S. recession in the second half of 2023, there is chance that things will worsen. Services activity seems more resilient amid robust consumer spending and a tide of tourists after Japan removed its final COVID-related border restrictions last month. Helping to drive private consumption were 2.3% wage hikes won by large-company unions in spring negotiations.

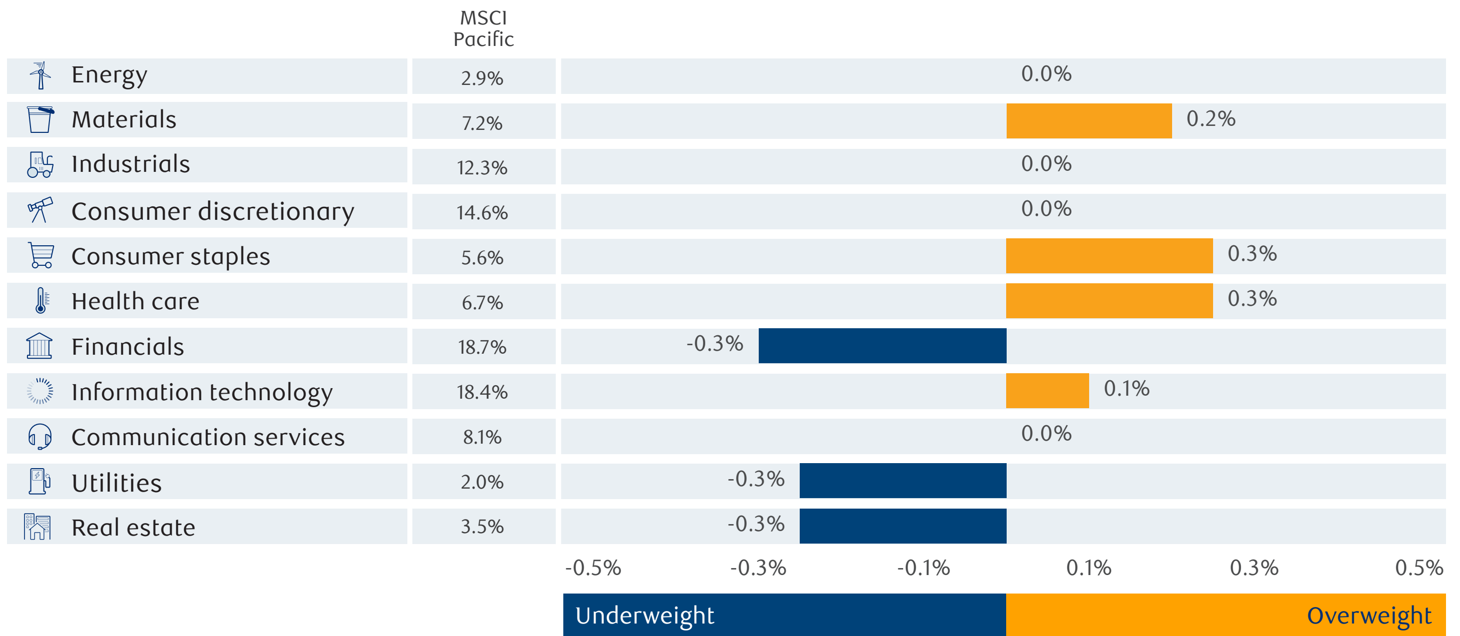
Inflation remains under control, with the 2023 Consumer Price Index forecast between 2.0% and 2.5%. We view the jump in the CPI reading to 3.4% in the first quarter of this year as temporary and expect inflation to gradually fall. The rise in overall costs for small and medium-sized enterprises has reduced profitability and could force workers to scale back wage demands in upcoming negotiations.

Rest of Asia

Asia's economic growth excluding Japan, Australia and New Zealand is forecast to rise to 4.7% in 2023 from 4.1% last year. The stronger economic growth is driven mainly by a rebound in China and Hong Kong, which were among Asia's last economies to re-open. Growth in Malaysia and Indonesia will likely slow amid lower commodity prices.

China's post-COVID recovery is on track, with capital investment taking the lead as consumption struggles to gain traction. The Chinese government has set a conservative 2023 growth target of about 5.0%, which it hopes to achieve without the need for massive government stimulus or

Asia – Recommended sector weights

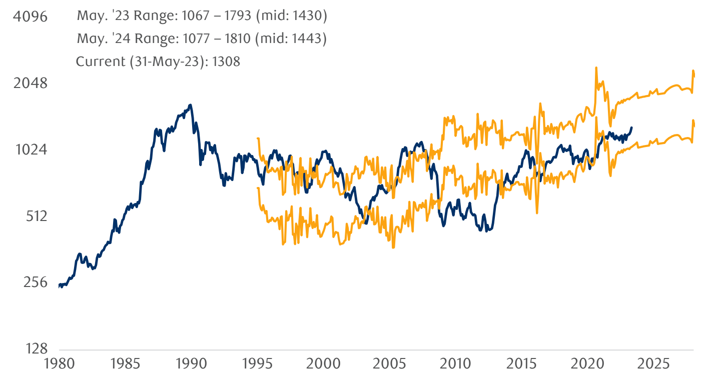


Note: As of May 31, 2023. Source: RBC GAM

> "The Chinese property market is showing early signs of stabilization, which should make consumers more comfortable opening their wallets."

MSCI Japan Index Equilibrium

Normalized earnings and valuations



Source: RBC GAM

looser monetary policy. Economists are forecasting GDP at 5.5%. We expect President Xi's new economic team to focus on boosting the private economy through foreign direct investment and industrial upgrades.

The recovery in consumption since the lifting of COVID-19 restrictions early this year has fallen short of extremely bullish expectations. A boom in services such as tourism and dining out has been offset by disappointing sales of goods including autos and smartphones. The property market is showing early signs of stabilization, which should make consumers more comfortable opening their wallets. In this relatively stable economic environment and absent faster inflation, the People's Bank of China is likely to leave interest rates where they are. We expect CPI inflation to decline to 1.8% in 2023 from 2.0% in 2022. Investors forecast a budget deficit of 4.9% of GDP, up from 4.7% in in 2022.

In India, we expect GDP growth to moderate to 5.5% in 2023 from 7.0% last year. Inflation, too, is expected to fall, dropping to 5% from 7% in part due in part to lower commodity prices. Current GDP data reflects continued weakness in manufacturing and strong momentum in construction. Labour markets in rural areas are recovering, and urban consumption is holding up. We believe that the central bank will start to cut rates in the fourth quarter of 2023, by between 0.50 percentage and 0.75 percentage point, provided inflation remains under control. On fiscal policy front, the government delivered a fiscal 2024 budget heavy on capital expenditures and trimmed its budget-deficit expectation to 5.9% of GDP from 6.4%. Our view is that weak macroeconomic conditions and unrealistically low spending projections may result in a fiscal deficit closer to 6.2%.

In South Korea, falling house prices will likely push the economy into a recession, leading the Bank of Korea to start easing as early as August. A manufacturing recession has become more evident, led by continued weakness in the chip industry due to excess inventories. Inflation-adjusted credit-card charges, an indicator of overall consumption, remained weak as consumers have become more careful, likely in response to the increased cost of living. To help make up for the weak consumer outlook, the government has announced measures to reboot domestic tourism via travel vouchers. At the same time, the government froze electricity prices, which may support consumer spending.

The Reserve Bank of Australia surprised markets in May by hiking its benchmark interest rate by 25 basis points amid inflation in the 5%-6% range. Our view is that the increase was the peak for the current round of policy-rates increases given a weaking economic outlook. Economic data suggest that Australia's economy is indeed cooling. Measures of retail sales, trade and hours highlight a loss of momentum, with some resilience in services. We expect these trends to continue, and that rising interest rates and fixed-rate mortgages resetting at higher levels will lead to a mild recession. We expect inflation to cool to 5.8% this year from 6.6% in 2022.

We anticipate little support from fiscal policy, as the Australian government is keen to build its reputation as a prudent fiscal steward and unwilling to fan elevated inflation. As a recession sets in, we anticipate a rise in unemployment from today's historically low level of 3.6 %. The arrival of a recession later this year will ease inflation and enable the central bank to begin lowering rates as early as the first quarter of 2024.

Regional outlook – Emerging markets

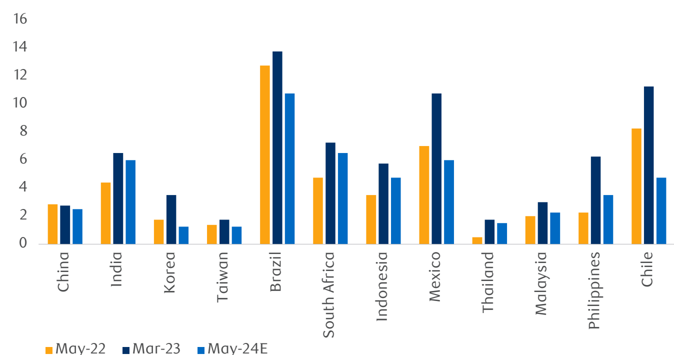
Guido Giammattei
Portfolio Manager,
RBC Global Asset Management (UK) Limited

The shorter-term outlook for emerging-market equities will be dictated largely by inflation and interest rates, the direction of the U.S. dollar and earnings growth, all of which we expect to become tailwinds for emerging markets. China's relaxation of pandemic-related restrictions and recent measures aimed at stabilizing the country's property market should also be positive for emerging markets.

In the medium to longer term, many investors fear that geopolitical tensions affecting global trade and the semiconductor industry could become material headwinds for emerging markets. Concern is increasing that populism, the U.S.-China conflict, and the drive to develop self-sufficiency in sectors crucial to national security will reverse globalization, reducing growth and profit margins for emerging-market companies. Global trade and the global supply chains that support it are undergoing a transformation in which supply chains are becoming less dependent on China. We expect emerging markets to retain their advantage with respect to semiconductor manufacturing over the medium term, with Taiwan and South Korea continuing to dominate.

Emerging-market governments have in recent years tightened monetary and fiscal policy, in many cases faster than the U.S. At this stage, most Asian and Latin American economies appear to be past the peak of inflation. The expected deceleration in inflation, along with a moderating outlook for economic growth, could allow many emerging-market central banks to lower interest rates over the next 12 months. The fact that many emerging-market central banks got out in front of inflation with rate hikes suggests that monetary policy could move from a headwind to a tailwind (Exhibit 1).

Exhibit 1: EM Monetary Policy
Normalized earnings and valuations



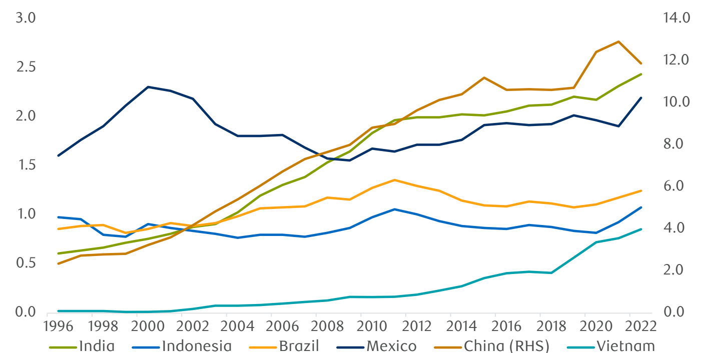
Note: As of April 2023. Source: UBS, CEIC

In addition to the more favourable inflation and monetary-policy backdrop, emerging-market equities are expected to benefit from improving returns on equity and earnings growth, and in both areas emerging market should outpace developed markets. Returns on equity are rising at about 14% after falling to 9% during the pandemic. In our view, most of the expected improvement in returns on equity and earnings-per-share growth over the next 12 months will be driven by the Information Technology sector in South Korea and Taiwan, and by economic recovery in China.

The direction of the U.S. dollar remains a critical influence on the path of emerging-market equities. The U.S. current-account deficit is at its widest relative to emerging markets over the past two decades and is expected to continue deteriorating through 2025. The U.S. fiscal position is also weakening compared with emerging markets, which should support emerging-market currencies. The U.S. dollar is extremely overvalued on metrics including real effective exchange rates and purchasing power parity. While such levels of overvaluation do not in themselves predict currency movements, the fact that U.S.-dollar valuations are extreme in an environment where emerging markets have an edge in trade and fiscal policy indicates that emerging-market currencies can expect to enjoy good support.

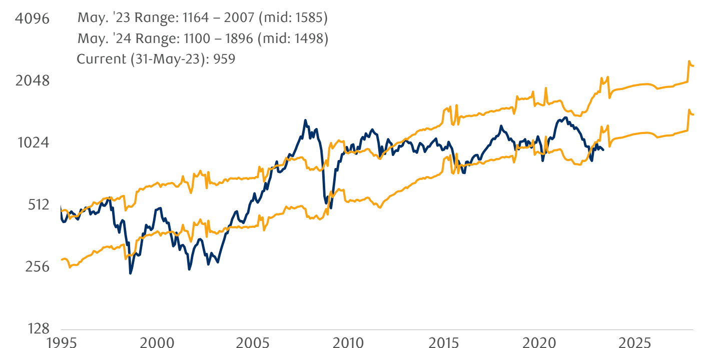
What we expect to be a restructuring of global trade will not in our view cause a reduction in global trade but rather substitute many of the China-centred supply chains that have developed over the past two decades. The result is likely to be a zero-sum game for emerging markets. China's share of global exports increased to 12.5% from 2.5% since the early 2000s, overtaking the U.S. at 9.2%. The U.S. case to push for reducing its trade reliance on China are twofold: 1) the desire to slow Chinese economic growth; 2) the belief that China has exploited the global free-trade system to strengthen its autocratic institutions and increase its appeal to non-democratic regimes. In this context, emerging-market countries such as Vietnam, Mexico, Malaysia, Indonesia and India are likely to continue to gain share in global exports at China's expense (Exhibit 2).

Exhibit 2: Country's share in World Exports
(Goods and Services)



Note: As of April 2023. Source: JPMorgan

MSCI Emerging Markets Index Equilibrium
Normalized earnings and valuations



Source: RBC GAM

The bulk of supply-chain relocations and the resulting reductions in China's share of exports will initially be driven by the Information Technology sector, an area that is subject to U.S. restrictions. In fact, the rivalry between the U.S. and China, and the related U.S. restrictions on technology exports to China, often referred as the "tech war," is a trend that is here to stay. Related are attempts by the U.S. to increase domestic production of semiconductors.

From a macroeconomic standpoint, we anticipate that there will be no major change to global semiconductor manufacturing in the next few years. As of 2022, 92% of leading-edge semiconductor production comes from Taiwan and 8% from South Korea. There are two key reasons why we believe the status quo will be maintained for the foreseeable future.

First, we do not believe that the U.S. will be able to recreate Asia's semiconductor ecosystem. Even with the CHIPS Act, passed last year and aimed at boosting domestic chip production, it would take years for the U.S. to reproduce Asia's knowledge base and supply chains built up over four decades. Higher costs and a lack of scale are likely to be formidable obstacles. While funding is important to semiconductor development, it does not guarantee success because the key factor is technological capability. Ultimately, subsidies tend to make industries and companies less competitive because they come to rely on subsidies instead of focusing on relentless self-improvement.

In terms of sectors, we continue to have a favourable view of the Consumer Staples and Financials sectors while we continue to have no or low exposure to Energy, Communication Services and Materials. In terms of countries, we view India favourably and South Korea in a somewhat less favourable light.

RBC GAM Investment Strategy Committee Members

Daniel E. Chornous, CFA
Chief Investment Officer
RBC Global Asset Management Inc.
Chair, RBC GAM Investment Strategy Committee

Dan Chornous is Chief Investment Officer of RBC Global Asset Management Inc., which has total assets under management of approximately $558.1 billion*. Mr. Chornous is responsible for the overall direction of investment policy and fund management. In addition, he chairs the RBC Investment Strategy Committee, the group responsible for global asset-mix recommendations and global-fixed income and equity portfolio construction for use in RBC Wealth Management's key client groups including retail mutual funds, International Wealth Management, RBC Dominion Securities Inc. and RBC Phillips, Hager & North Investment Counsel Inc. He also serves on the Board of Directors of the Canadian Coalition for Good Governance and is Chair of its Public Policy Committee. Prior to joining RBC Asset Management in November 2002, Mr. Chornous was Managing Director, Capital Markets Research and Chief Investment Strategist at RBC Capital Markets. In that role, he was responsible for developing the firm's outlook for global and domestic economies and capital markets as well as managing the firm's global economics, technical and quantitative research teams.

*AUM in CAD as of May 31, 2023

Soo Boo Cheah, MBA, CFA
Senior Portfolio Manager
RBC Global Asset Management (UK) Limited

Based in the U.K., Soo Boo is responsible for managing global fixed-income allocations. He specializes in assessing the impact of central bank policies and global macroeconomic trends on developed-market bonds. In his role as a senior portfolio manager, he integrates a wide range of investment strategies involving interest rates, currencies, and derivatives. Soo Boo started his career in the investment industry in 2000 and holds an MBA from University of New Brunswick. Soo Boo has been a CFA charterholder since 2002.

Dagmara Fijalkowski, MBA, CFA
Head, Global Fixed Income & Currencies
RBC Global Asset Management Inc.

As Head of Global Fixed Income and Currencies, Dagmara leads a team of 40+ investment professionals in Toronto, London and Minneapolis with almost $100 billion in assets under management. In her duties as a portfolio manager, Dagmara leads management of several bond funds, including the RBC Bond Fund, and manages foreign-exchange hedging and active overlay programs. She leads the Fixed Income Strategy Committee which determines appropriate level of risk taking given market opportunities. Dagmara is a member of the RBC Investment Policy Committee, which determines the asset mix for balanced products; and the RBC Investment Strategy Committee. In 2016, she was appointed to the RBC GAM Executive Committee. Dagmara, who began her investment career in 1994, holds an MBA from the Richard Ivey School of Business at the Western University in Canada and a Master's degree in economics from the University of Lodz in Poland. Dagmara has been a CFA charterholder since 1997.

Stuart Kedwell, CFA
Senior Vice President and
Senior Portfolio Manager
RBC Global Asset Management Inc.

Stu co-leads the North American Equity team and is a member of the RBC GAM Investment Strategy Committee, which is responsible for establishing the firm-wide global asset mix for mutual funds and for institutional and high net worth private clients. Stu began his career in 1996 with RBC Dominion Securities in the firm's Generalist program, a two-year internship in which participants rotate through different areas of the firm. In 1998, he joined the RBC Investments Portfolio Advisory Group, which provides investment ideas and recommendations to RBC DS Investment Advisors. He was also a member of the RBC DS strategy & focus list committees. Stu has been with the firm since 2002 and is a CFA charterholder.

Eric Lascelles
Chief Economist
RBC Global Asset Management Inc.

Eric is the Chief Economist for RBC Global Asset Management Inc. (RBC GAM) and is responsible for maintaining the firm's global economic forecast and generating macroeconomic research. He is also a member of the RBC GAM Investment Strategy Committee, the group responsible for the firm's global asset-mix recommendations. Eric is a frequent media commentator and makes regular presentations both within and outside RBC GAM. Prior to joining RBC GAM in early 2011, Eric spent six years at a large Canadian securities firm, the last four as the Chief Economics and Rates Strategist. His previous experience includes positions as economist at a large Canadian bank and research economist for a federal government agency.

Scott Lysakowski, CFA
Vice President and Senior Portfolio Manager
Head of Canadian Equities (Vancouver)
RBC Global Asset Management Inc.

Scott is Head of the Vancouver-based Canadian Equity Team. He is primarily responsible for overseeing equity research and portfolio management of the firm's core Canadian equity strategies. Scott also serves as lead manager for the Canadian income strategies. Scott began his investment management career with the firm in 2002 as a senior research analyst and portfolio manager within the Toronto-based Canadian Equity Team. He transitioned to the Vancouver team seven years later and assumed his current leadership role in 2012. During his 15-year tenure with the organization, he has conducted research for and managed a broad spectrum of Canadian equity portfolios, specializing in dividend and income mandates.

Hanif Mamdani
Head of Alternative Investments
RBC Global Asset Management Inc.

Hanif Mamdani is Head of both Corporate Bond Investments and Alternative Investments. He is responsible for the portfolio strategy and trading execution of all investment-grade and high-yield corporate bonds. Hanif is Lead Manager of the PH&N High Yield Bond and Alternative strategies, including a multi-strategy hedge fund. He is also a member of the Asset Mix Committee. Prior to joining the firm in 1998, he spent 10 years in New York with two global investment banks working in a variety of roles in Corporate Finance, Capital Markets and Proprietary Trading. Hanif holds a master's degree from Harvard University and a bachelor's degree from the California Institute of Technology.

Bryan Mascoe, CFA
Senior Portfolio Manager
Co-head, Fixed Income (Vancouver)
RBC Global Asset Management Inc.

Bryan is co-Head and a senior portfolio manager on the PH&N Fixed Income Team. He co-manages the investment-grade credit research effort. As part of this role, he manages our dedicated corporate bond portfolios and is responsible for performing credit analysis on investment-grade issuers. He also assists with the strategy and trade execution of corporate bonds held in broader short, universe, and long fixed-income mandates. Bryan has a Bachelor of Commerce degree from the University of British Columbia and is a Leslie Wong Fellow as a graduate of the UBC Portfolio Management Foundation. He has been a CFA charterholder since 2005.

Sarah Riopelle, CFA
Vice President and Senior Portfolio Manager
Investment Solutions
RBC Global Asset Management Inc.

Since 2009, Sarah has managed the entire suite of RBC Portfolio Solutions. Sarah is a member of the RBC GAM Investment Strategy Committee, which sets global strategy for the firm, and the RBC GAM Investment Policy Committee, which is responsible for the investment strategy and tactical asset allocation for RBC Funds' balanced products and portfolio solutions. In addition to her fund management role, she works closely with the firm's Chief Investment Officer, ensuring that all aspects of the investment management function at RBC GAM are running smoothly. She is a member of the RBC Wealth Management Diversity Leadership Committee. Sarah joined RBC Global Asset Management in 2003 as a Senior Analyst within Investment Strategy. From there, she moved to the Canadian Equity team as an analyst and then a portfolio manager. She began her career in the investment industry in 1996 after graduating from the University of Ottawa with a Bachelor of Commerce degree, majoring in Finance and International Management. She was awarded the Chartered Financial Analyst designation in 2001.

Martin Paleczny, CFA
Vice President and
Senior Portfolio Manager
RBC Global Asset Management Inc.

Martin Paleczny, who has been in the investment industry since 1994, began his career at Royal Bank Investment Management, where he developed an expertise in derivatives management and created a policy and process for the products. He also specializes in technical analysis and uses this background to implement derivatives and hedging strategies for equity, fixed-income, currency and commodity-related funds. Since becoming a portfolio manager, Martin has focused on global allocation strategies for the full range of assets, with an emphasis on using futures, forwards and options. He serves as advisor for technical analysis to the RBC GAM Investment Strategy Committee.

Kristian Sawkins, CFA
Vice President and Senior Portfolio Manager
PH&N Fixed Income
RBC Global Asset Management Inc.

Kristian is co-Head and a senior portfolio manager on the PH&N Fixed Income team, specializing in universe and short-term bond mandates. He is also a member of the PH&N IM Asset Mix Committee. Kristian joined Phillips, Hager & North Investment Management in 2002 as an associate analyst with the Canadian Equities Team and moved to the Fixed Income Team in 2005. Prior to joining the organization, Kristian spent three years at a major investment bank in New York across a few different roles. Kristian has a Bachelor of Commerce degree from the University of British Columbia and is a Leslie Wong Fellow as a graduate of the UBC Portfolio Management Foundation. He has been a CFA charterholder since 2002.

Jaco Van der Walt, DCom
Vice President and
Global Head of Quantitative Research & Investments
RBC Global Asset Management Inc.

As Head of Quantitative Investments, Jaco leads an experienced team that is driven to continually innovate across all its capabilities, including research, portfolio management, data and systems to leverage the combination of human and machine in investment decision-making. He previously held an executive role at one of South Africa's largest financial services companies, leading the Investment Management Office, with experience spanning pensions, insurance, banking and wealth management. As asset owner, he also chaired the boards and investment committees of several of the company's pension plans, promoting investment excellence and driving transformational change to ensure members reach their retirement goals. Jaco began his investment career in 1996 and holds a Master's degree in Economics from the University of Toronto and a Doctorate from the University of Pretoria.

Milos Vukovic, CFA
Vice President, Investment Policy
RBC Global Asset Management Inc.

Milos, who joined RBC in 2003, oversees investment-management activities including new-fund launches, performance analytics and trade-cost analysis. He is also responsible for developing and monitoring investment mandates and implementing tactical asset allocation for the RBC GAM investment solutions. Milos earlier worked for a Big 4 accounting firm and two top-tier securities firms. He earned an MBA at the Schulich School of Business and has held the CFA designation since 2004. He is a board member of both the Canadian Buy-Side Investment Management Association and the Canadian Advocacy Council for Canadian CFA Institute Societies, and recently joined IIROC's Market Structure Advisory Committee.

Brad Willock, CFA
Vice President and
Senior Portfolio Manager
RBC Global Asset Management Inc.

Brad Willock joined RBC Global Asset Management in July 2002 and is a Senior Portfolio Manager and CFA charterholder. In his current role, Brad has responsibility for RBC Global Asset Management's core and income-oriented U.S. equity strategies. He joined RBC in May 1996 after receiving a bachelor's of commerce degree with distinction from the University of Calgary. Prior to that, Brad obtained a bachelor's of science degree at the University of British Columbia and represented Canada at the 1992 Barcelona Summer Olympics in volleyball.

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> North American Equities
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> **Mayur Nallamala**
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> Chief Economist
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