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Markets extend slide as central banks pursue restrictive policies

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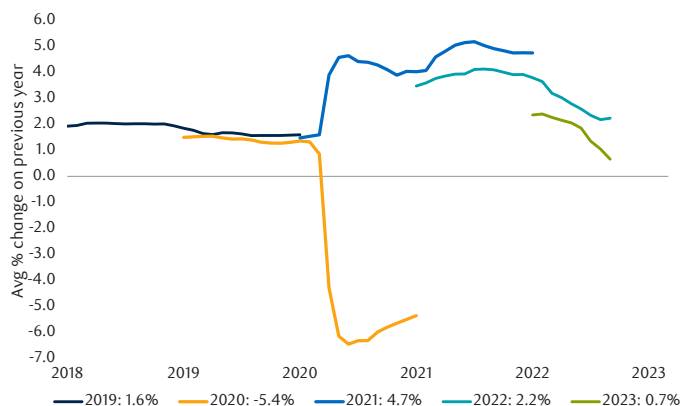
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Interest rates likely have further to rise and they may need to stay elevated for longer than previously expected to curb unacceptably high inflation. This is the message being voiced by central banks around the world and is being followed up by super-sized rate hikes in quick succession. Four decades of central-bank credibility is at stake and policymakers want to tame inflation at all costs even if that means they are negatively impacting the economy and financial markets.

The global economy is already slowing and higher borrowing costs will act as an additional headwind. Other challenges include the war in Ukraine, the energy crisis in Europe and China's irregular pandemic-related shutdowns. That said, there are a variety of reasons to believe that inflation may have already peaked given that all four of the major tailwinds to inflation – monetary stimulus, fiscal stimulus, commodity prices and supply chain challenges – have turned. While peak inflation is a positive development, central bankers' patience will ultimately be tested by the speed at which upward pressure on consumer prices fades. In this environment, we expect the economy to continue to decelerate and that the odds of recession remain elevated. If the economy does shrink, though, we expect that the contraction would be of middling size and duration. Our growth forecasts remain below the consensus and our inflation forecasts are more in line with the market view in that we expect a meaningful decline in 2023 versus 2022 (exhibits 1 and 2).

Exhibit 1: Weighted average consensus real GDP

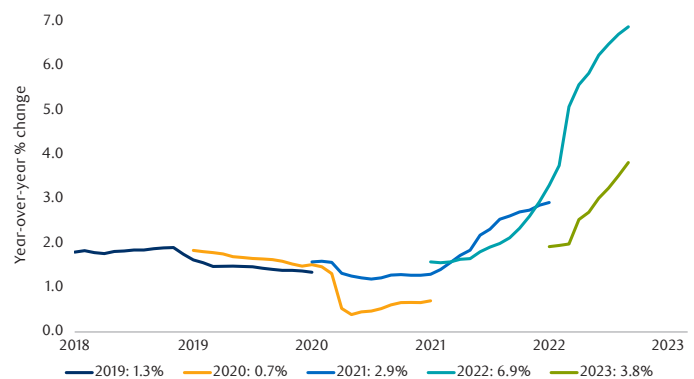
Growth estimates for major developed nations



Note: As of September 2022. Source: Consensus Economics

Exhibit 2: Weighted average consensus CPI

Inflation estimates for major OECD nations



Note: As of September 2022. Source: Consensus Economics

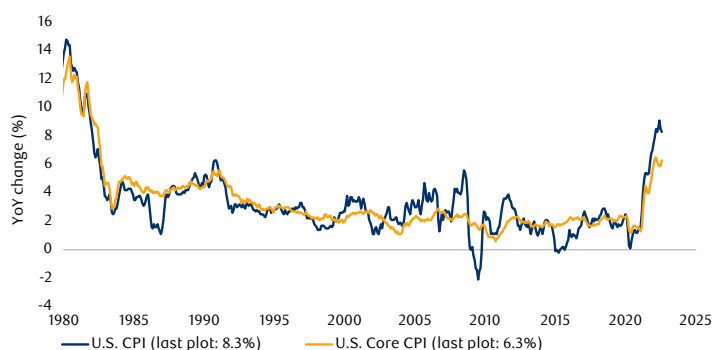
Stubborn inflation and strong labour market is a recipe for more tightening

Inflation has arguably become the most important indicator for investors to follow because it provides clues on whether central banks can relax their tightening agenda. The latest inflation data was disappointing. Although U.S. headline inflation declined to 8.3% in August from 8.5% in July, it didn't fall to the 8.1% level that was expected. Significant recent declines in oil and gasoline prices helped, but they were offset by large increases in other categories. The core inflation measure, which excludes food and energy, actually rose last month led by higher shelter costs reflecting increases in rent and mortgage rates (Exhibit 3). But high prices may be starting to have an impact on corporate pricing power. A survey of small businesses in the U.S. indicates that plans to raise prices, while still elevated, is well off its highs from the spring/summer suggesting that some businesses may be reaching their limit on the ability to pass higher costs to consumers (Exhibit 4). Taking all of these factors into consideration, central banks believe that it's too early to claim victory on the fight against inflation. They would prefer to see a clear path toward 2% before lowering their guard. With unemployment still situated near historic lows, the U.S. Federal Reserve (Fed) has a clear runway to continue attacking inflation without worrying too much about the economy (Exhibit 5).

Jumbo rate hikes have become the norm, with more likely to come

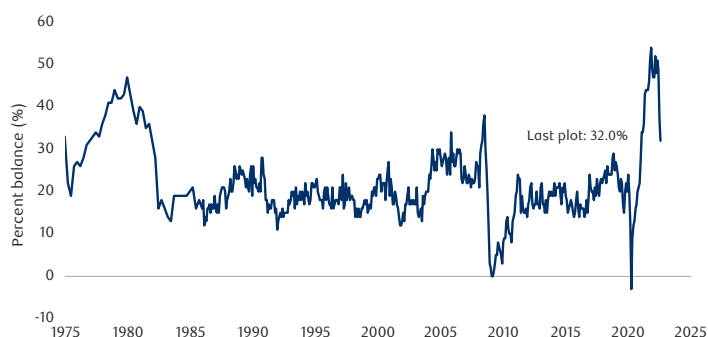
Central banks are showing no remorse for financial markets and remain intent on raising interest rates aggressively to curb inflation pressures. Earlier this month, the European Central Bank and Bank of Canada each raised their overnight lending rates by 75 basis points. The Fed followed with a 75-basis-point hike on September 21st and the Bank of England hiked by 50 basis points on September 22nd. All of these central banks indicated that more hikes will be needed and that rates would likely remain high until inflation moves back down to reasonable levels. Fed chair Jerome Powell made it clear in his speech on September 21st that monetary policy needs to move into restrictive territory in order to tame inflation. The market has acknowledged the Fed's hawkishness, with the futures market pricing in another 175 basis points in U.S. rate hikes by early 2023 (Exhibit 6). Interestingly, investors are pricing in rate cuts in late 2023 and into 2024. While the Fed's own dot plots show an eventual decline in interest rates over the long-term, they show that the Federal Open Market Committee projects interest rates to be higher at the end of 2023 (4.6%) than they are at the end

Exhibit 3: U.S. CPI and Core CPI (ex. food & energy)



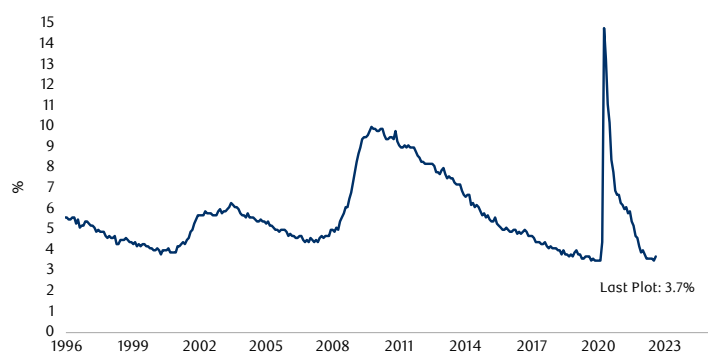
Note: As of September 13, 2022. Source: Bloomberg, RBC GAM

Exhibit 4: U.S. small business survey – Companies with plans to raise prices over the next 3 months



Note: As of August 31, 2022. Source: RBC GAM

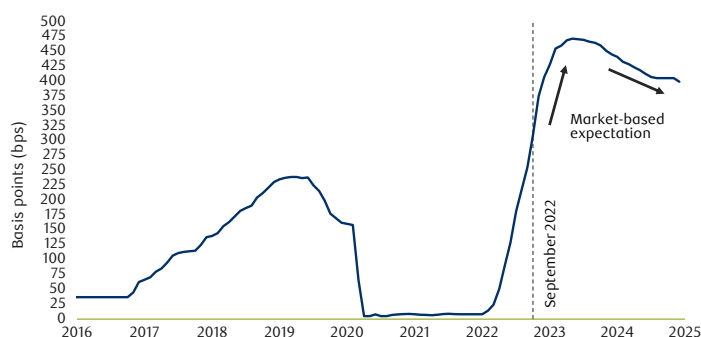
Exhibit 5: U.S. unemployment rate



Note: As of Aug 2022. Source: Bloomberg, RBC GAM

Exhibit 6: Implied fed funds rate

12-months futures contracts as of September 23, 2022

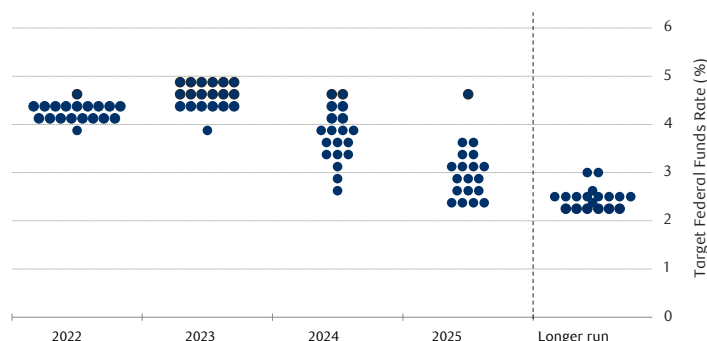


Source: Bloomberg, U.S. Federal Reserve, RBC GAM

of 2022 (4.4%) (Exhibit 7). This suggests that the market could be premature in pricing in rate cuts, or that the Fed may be overestimating how much hiking the economy can withstand. In any event, both of these projections suggest a fed funds rate above 4.25% throughout 2023 which is a marked increase versus a quarter ago when the peak in fed funds this cycle was expected to be just 3.50%.

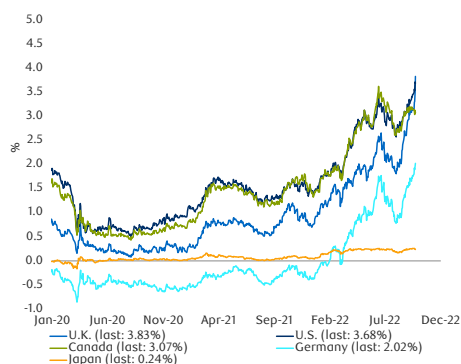
Bonds extend sell-off as yields reach new cycle highs

The notion that higher overnight lending rates could stick around for a while yet caused bond yields in most regions to rise to new cycle highs. The U.S. 10-year yield jumped beyond 3.75%, well above its prior peak of 3.50% in June (Exhibit 8). In the U.K., the announcement of tax cuts and government-support sparked fears that inflation could be fanned even more. The British pound plunged and 10-year Gilt yields surged toward 4%, far above their prior peak of 2.75% in June

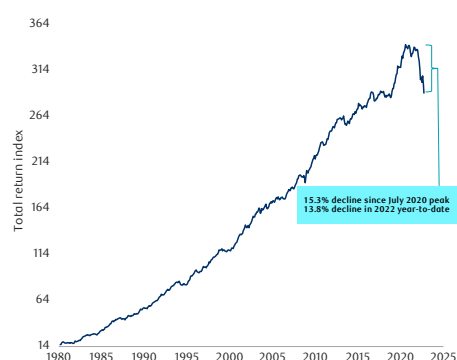
Exhibit 7: Target federal funds rate at year-end – FOMC Participants' Assessments of Appropriate Monetary Policy

Note: As of September 21, 2022. Each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run. One participant did not submit longer-run projections for the federal funds rate. Source: U.S. Federal Reserve

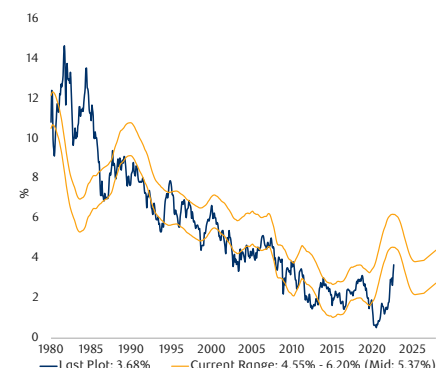
and surpassing U.S. 10-year Treasury yields for the first time since 2014. Bucking the trend has been Canadian bonds, which outperformed in the latest fixed-income sell-off as falling oil prices, fears of recession and outright declines in Canadian consumer prices last month kept a lid on Canadian government bond yields. Overall, the sell-off in fixed income markets has been steep, with a broad-based index of U.S. bonds extending its losses to 13.8% year-to-date and erasing all returns generated since the end of 2018 (Exhibit 9). At this point, our bond models suggest that valuation risk has been greatly reduced as a result of the recent surge in yields and that any further rise in yields from here would likely only be sustained if unacceptably high inflation persists (Exhibit 10).

Exhibit 8: 10-year government bond yields

Note: As of September 23, 2022.
Source: Bloomberg, RBC GAM

Exhibit 9: ICE BofA U.S. Broad Market Index – Total return index

Note: As of September 23, 2022.
Source: Bloomberg, RBC GAM

Exhibit 10: U.S. 10-year T-bond yield – Equilibrium range

Note: As of September 23, 2022. Source: RBC GAM

Credit markets have been reasonably well behaved

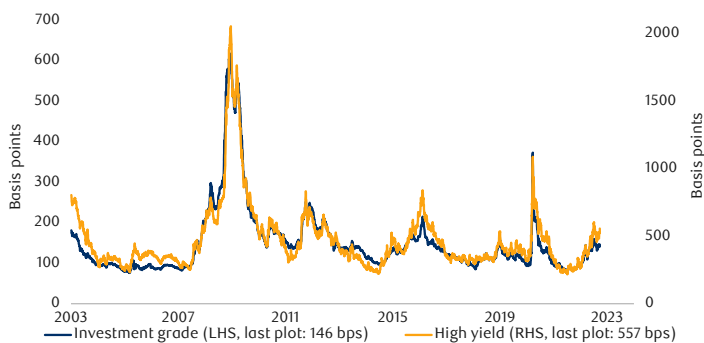
Although corporate bonds have endured meaningful declines along with the overall bond market, the sell-off has had more to do with a re-rating in sovereign bond yields as credit spreads have been relatively well contained. Risk premiums on investment grade and high-yield corporate bonds have been hovering near their long-term averages and, importantly, they are narrower than they were in June (Exhibit 11). During past crisis periods, spreads have risen to roughly double their current readings and the absence of further widening from here may be a sign that credit losses will be limited. This notion is further supported by the fact that a relatively low proportion of U.S. corporate bonds are trading at distressed levels. Exhibit 12 plots the percentage of corporate bonds that are trading at spreads above 1000 basis points (i.e. the distressed ratio) and while it is off its lows, it remains at less than half the level that we typically

see during recessions. If this relationship holds, it suggests that default rates will likely remain low. The fact that credit markets appear relatively contained suggests confidence that companies will generate sufficient profits to pay their outstanding debts.

Stocks tumble again as higher rates weigh on valuations

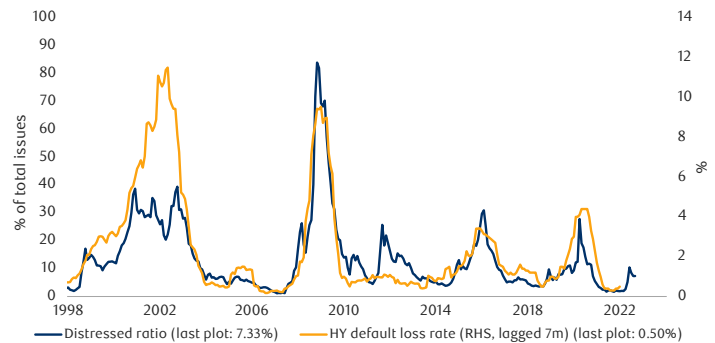
The summer rally in stocks came to an abrupt end and the bear market resumed with stocks falling to new lows in most regions as central banks became increasingly hawkish. Since the recent peak in mid-August, the S&P 500 is down 14% and the tech-heavy NASDAQ has declined 17% (Exhibit 13). The latest sell-off has pulled our composite of global equity-market valuations below fair value for the first time since March 2020 (Exhibit 14). Global stocks appear even more attractively priced if we exclude the U.S. from the valuation

Exhibit 11: U.S. corporate bond spreads – Difference with U.S. 10-year Treasury yield



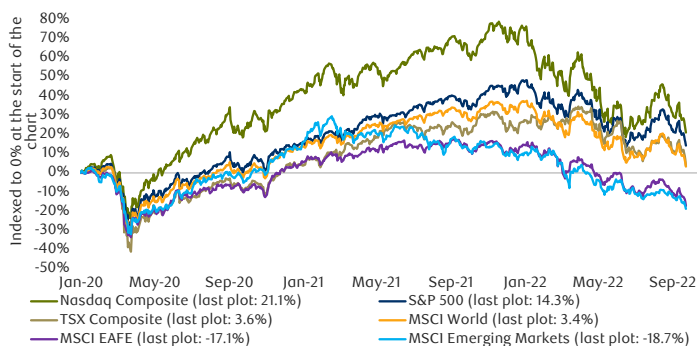
Note: As of September 23, 2022. Source: Barclays Capital, Bloomberg, RBC GAM

Exhibit 12: U.S. high yield distressed ratio – Percent of total issues with OAS spreads in excess of 1000 bps



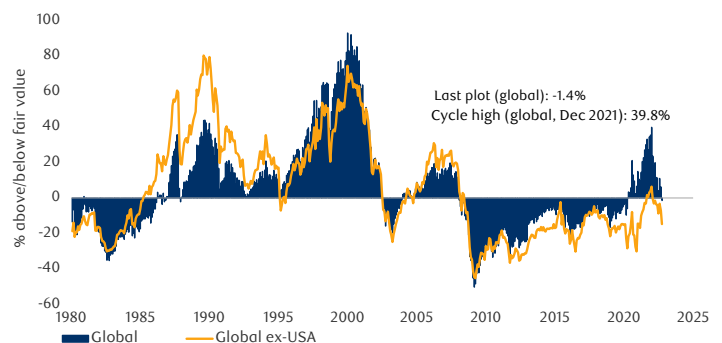
Note: As of September 23, 2022. Source: BofAML, Credit Suisse, RBC GAM

Exhibit 13: Major equity market indices
Cumulative price returns indices in USD



Note: As of September 23, 2022. Price returns computed in USD.
Source: Bloomberg, RBC GAM

Exhibit 14: Global stock market composite
Equity market indexes relative to equilibrium



Note: As of September 23, 2022. Source: RBC GAM

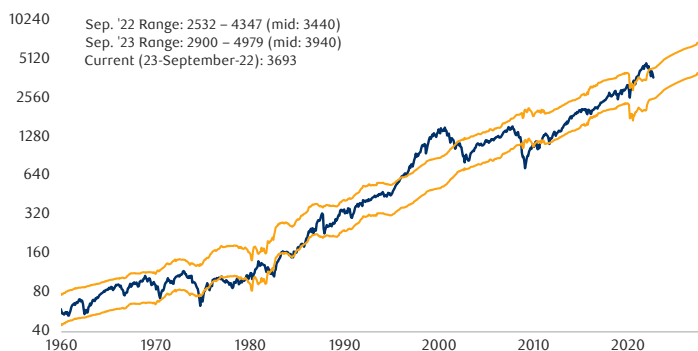
composite. The S&P 500 remains above fair value, but only slightly so, as much of its prior overvaluation has been corrected by the latest bear market (Exhibit 15).

S&P 500 profits are declining if energy is excluded

Although declining valuations have been the major source of equity-market declines so far this year, weakness in earnings could represent a further headwind to stock prices going forward. Profit estimates have been gradually coming down as analysts downgraded their outlook for earnings on the back of slowing economic growth and rising cost pressures (Exhibit 16). But, so far, the adjustments to the overall S&P 500 earnings estimate have been relatively minor because the surge in energy sector profits is offsetting any weakness in

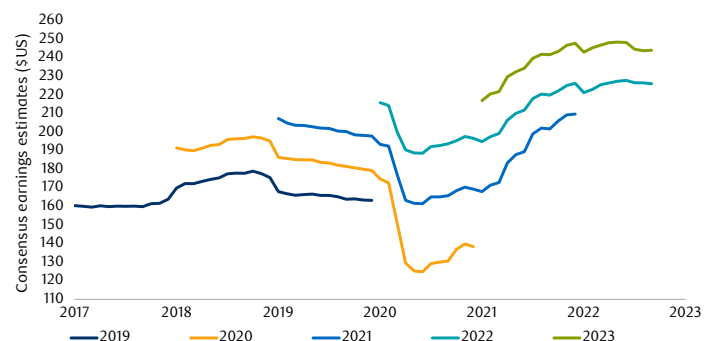
other sectors. Energy profits were up an impressive 296% in the second quarter versus a year earlier, helped by the spike in oil prices following Russia's invasion of Ukraine (Exhibit 17). With this massive positive contribution from energy, S&P 500 profits were up 8.4% in aggregate in the second quarter. However, excluding energy, S&P 500 profits were actually down 2.1%. Looking ahead, analysts expect gains from energy to slow, but for earnings in other sectors to return to growth and for ex-energy earnings to rise at double-digit rates by the second quarter of next year. We still believe that these estimates are overly optimistic in that they are not reflecting the high odds of a recession which, on average, has been accompanied by a 25% decline in profits.

Exhibit 15: S&P 500 equilibrium



Source: RBC GAM

Exhibit 16: S&P 500 Index
Consensus earnings estimates



Note: As of September 23, 2022. Source: BofAML, Credit Suisse, RBC GAM

Exhibit 17: S&P 500 historical and estimated future earnings growth rates

Sector	Historical					Estimates			
	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2
Consumer Discretionary	380.5%	19.4%	54.1%	-27.9%	-12.1%	17.2%	-0.4%	64.3%	50.5%
Consumer Staples	20.4%	7.4%	7.7%	7.9%	2.2%	-2.6%	0.5%	2.1%	6.6%
Energy	243.3%	1798.0%	12611.0%	269.5%	295.5%	118.0%	64.4%	27.4%	-26.9%
Financials	158.2%	35.9%	9.9%	-17.1%	-19.3%	-9.2%	-2.1%	9.9%	16.4%
Health Care	27.2%	29.0%	28.0%	18.3%	8.7%	-4.0%	0.6%	-6.5%	-3.0%
Industrials	689.4%	88.4%	43.8%	40.5%	31.6%	26.4%	43.5%	31.0%	11.7%
Materials	139.5%	89.1%	64.2%	46.3%	17.5%	2.0%	0.9%	-11.2%	-10.2%
Real Estate	38.7%	34.4%	17.6%	25.5%	13.1%	10.4%	9.9%	-1.5%	0.4%
Technology	49.6%	38.2%	24.6%	14.6%	1.5%	-3.4%	1.3%	1.5%	9.3%
Communication Services	72.8%	35.6%	16.6%	-2.8%	-20.3%	-15.9%	-9.1%	5.3%	17.2%
Utilities	12.6%	10.3%	-1.3%	24.6%	-3.7%	-7.2%	2.9%	-7.7%	-1.5%
S&P 500	96.3%	42.6%	32.1%	11.4%	8.4%	4.6%	6.0%	7.7%	5.5%
S&P 500 Ex-Energy	80.6%	34.3%	23.5%	5.2%	-2.1%	-1.9%	2.1%	6.1%	10.3%

Note: as of September 23, 2022. Figures from 2022 Q3 onward are estimates. Source: I/B/E/S data from Refinitiv, RBC GAM

Scenarios reveal wide range of potential outcomes

As is always the case, there are a variety of paths forward for markets and it's worth keeping in mind that, from any point in time, the environment could end up being better or worse than what is currently priced in. A simple framework using base, bull and bear cases can help to illustrate a range of what we believe are reasonable scenarios. Examples of these are outlined in exhibits 18 and 19 for 10-year Treasuries and the S&P 500 respectively. If we consider the base case for bonds as one in which yields remain relatively unchanged over the next year, U.S. 10-year Treasuries would deliver just above 3% on a total return basis. Should the economy fall into recession and/or inflation fell precipitously, yields could decline to 3.25% resulting in high single-digit returns for bonds in the bull case. In an adverse scenario where investors need to price in even more rate hikes, yields could rise above 4.0% which would lead to slightly negative total returns for bonds from here. Importantly, at the higher starting point for yields from today, the risk of further significant losses in bonds has been greatly reduced.

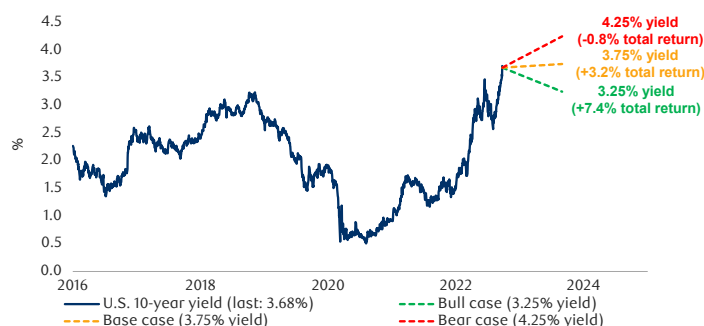
For stocks, the base case assumes the market trades at an equilibrium P/E of 17.6 (the level consistent with current interest rates, inflation and corporate profitability) and earnings come in as analysts expect one year from today. In this scenario, the S&P 500 would trade up to 4180 for a return of 13.2%. The bear case assumes earnings drop 25% as is the average decline during recessions and that valuations settle a bit above equilibrium as investors tend to price in the eventual recovery in profits ahead. This scenario results in a further 18.6% decline in stocks from here. The bull case assumes earnings come in 5% better than expected and that that market trades at a slightly above-equilibrium P/E, generating a return of 32% over the next year. Although we feel it is unlikely, a scenario where both stocks and bonds endure a bear case simultaneously would occur if inflation remains too high and the Fed has to hike more aggressively than expected, resulting in higher bond yields and lower equity-market valuations.

Asset mix – remain close to neutral

The economy is slowing and there are a variety of risks to the outlook. We believe that the risk of recession is elevated and the range of potential outcomes for markets is especially large in the near-term. Over the long-term, however, valuation risk has diminished across both fixed income and equity markets, and the long-term return potential has improved as a result of the significant re-pricing in both asset classes.

Exhibit 18: U.S. 10-year Treasury yield

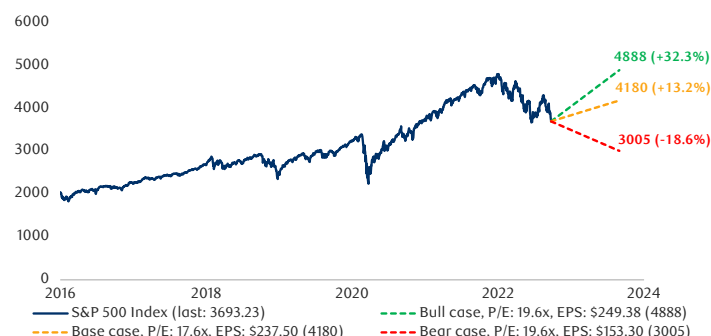
Possible scenarios



Note: As of September 23, 2022. Source: RBC GAM

Exhibit 19: S&P 500 Index

Possible scenarios



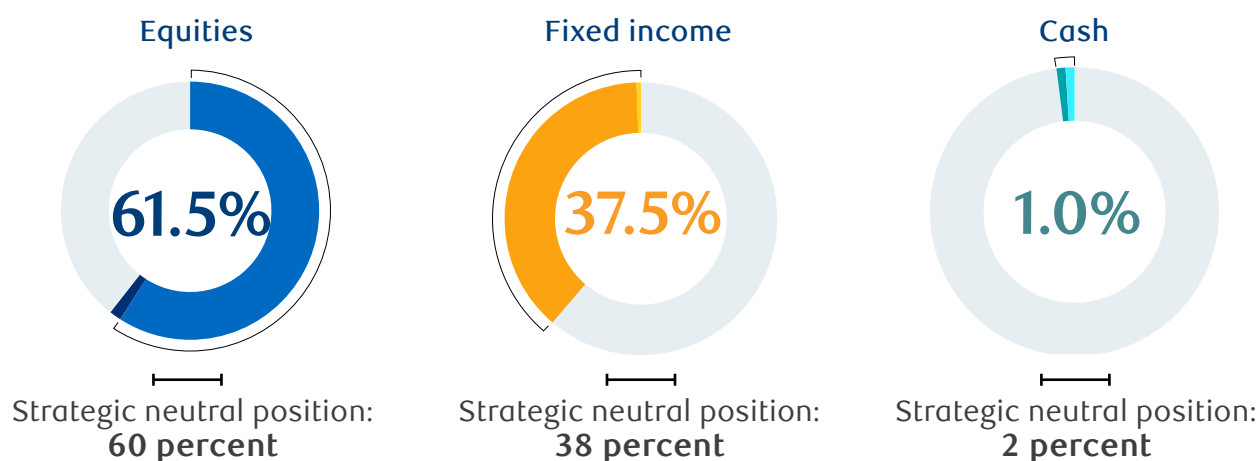
Note: As of September 23, 2022. Source: RBC GAM

“Balancing the risks and opportunities as well as the shorter term versus the longer term, we remain close to neutral in our positioning.”

Given the current higher level of yields, we think bonds could provide more of a cushion to stocks in a balanced portfolio in the event of a recession. For this reason, we have been narrowing our underweight in bonds over the past few quarters as yields have moved higher. We are maintaining a slight overweight allocation to stocks given our view that stocks will likely outperform bonds over the longer term and we recognize that there are a variety of positive scenarios for stocks should inflation calm rapidly and economies avoid

recession. That said, our equity overweight is much lower than it has been in recent years, reflecting our cautious view in the near-term. Balancing the risks and opportunities, as well as the near-term versus longer term view, we remain close to neutral in our positioning. Our current recommended asset mix for a global balanced investor is 61.5% equities (strategic: “neutral”: 60%), 37.5% bonds (strategic “neutral”: 38%) and 1.0% in cash (Exhibit 20).

Exhibit 20: Recommended asset mix



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