



Citi Global Wealth Investments

July 14, 2022

# Global Strategy | Quadrant

**Steven Wieting**  
Chief Investment  
Strategist & Chief  
Economist  
+1-212-559-0499  
[steven.wieting@citi.com](mailto:steven.wieting@citi.com)

**Joseph Fiorica**  
Head – Global Equity

**Bruce Harris**  
Head – Global Fixed  
Income

**Jai Tiwari**  
Head – Global FX  
strategy

**Jorge Amato**  
Head – Latin America

**Ken Peng**  
Head – Asia Strategy  
**Li-Gang Liu**  
Head – APAC economics  
**Cecilia Chen**  
**Calvin Ha**

**Guillaume Menuet**  
**Judiyah Amirthanathar**  
EMEA

**Charles Reinhard**  
Head – North America  
**Shawn Snyder**  
Head – US Consumer  
Wealth  
**Lorraine Schmitt**

**Malcolm Spittler**  
**Maya Issa**  
Global

**Joseph Kaplan**  
Fixed Income

**Melvin Lou**  
FX strategy

## Quality Income Until the Hawks Fly Home

**How should investors look at rising US employment and falling asset prices? A recession that's "not yet" is "not good."** We continue to believe the Fed is running a pro-cyclical monetary policy, first stoking an inflationary boom, then tightening sharply into a slowing economy. The depth and duration of the coming weaker period for the world economy is highly uncertain. This leaves us to focus on the most certain sources of return: interest payments and dividends from investment grade governments and corporates.

**Despite near-term inflation of far greater-than-expected scope, we see growing risks of economic contraction in 2023 and inflation subsiding.** In reaction, we have reduced our exposure to "inflation hedges" in equities and added further to our overweight in high grade fixed income.

**We raised our overweight to intermediate-duration US investment grade corporate bonds to +3.5%, investing in less volatile, lower risk fixed income at a yield close to 5%.** Along with other small shifts, this raised our total US fixed income overweight to +10.2%, including a 4.5% overweight to US Treasuries.

**While we see commodity supply disruptions from Russia continuing, we eliminated our overweight in oilfield services given its high beta (relative volatility) and overlap with more profitable and higher yielding natural resources firms.** This reduced our global equities weighting from +2% to neutral. Excluding commodities-related investments, our global equity weighting remains at -2%.

**After a period of outperformance within fixed income, we eliminated our overweight to high yield variable rate loans, reinvesting the proceeds in investment grade preferred stock.** Since we eliminated high yield bond holdings in favor of loans in early in 2021, loans have returned -0.8% and high yield bonds -8.5%. Loans have benefited from their floating rate structure, with the Fed's expected tightening cycle padding returns. However, **we see risks shifting from higher rates to weaker credit, with highly leveraged firms at risk.** Investment grade preferred securities have fallen 12% year-to-date, pushing yields toward 6.5%, far above bank common equity yields. With other small changes in portfolios, we were able to effectively raise our capital position within financials while adding substantially to yield.

**China's economy has fallen to its weakest level since COVID first hit in 1Q 2020, with sharply higher unemployment and a 50% collapse in property sales. A refocus on achieving growth targets with policy easing should lead to stronger equity returns in 2023.** Along with other cuts in thematic equities (Fintech), we've added another full percentage point to China equities for a 2% overweight. China's presently weak but improving economy, low inflation rate, restrained profits, and depressed valuation suggest an unusually asynchronous position to the US.

**While economic risks are rising, our overall investment strategy remains unchanged. We believe portfolios should focus on higher quality income in both fixed income and equities.** Our largest off-index position in equities is an allocation to consistent dividend growth equities (+3% overweight in the US, +1% non-US). In the US, these shares have fallen, but outperformed by nearly 900 basis points in 2022-to-date. Our largest industry group weighting is global pharmaceuticals, which have returned -1.5% this year vs -20% for global equities.

**Periods of supply shocks and demand instability are unlikely to be "cured" with a monetary policy induced recession.** We fear that a lack of patience from central banks can weaken the supply recovery and harm employment more than inflation is improved. **A drop in inflation, however, could prove stabilizing, particularly while employment growth persists.** After double-digit losses in both global equities and bonds in the first half 2022, persistent growth would easily be viewed as a positive surprise.

The Global Investment Committee made several changes to our asset allocation at our 13 July 2022 meeting, increasing holdings of US investment grade fixed income, reducing our overweight in commodity-related equities and increasing our Chinese equity overweight.

We added a thematic overweight in investment grade hybrid – or preferred – securities while cutting our position in fintech. We eliminated our high yield loans position after their sharp outperformance over high yield bonds. This effectively increased our position in the capital structure of investments within the financial sector while adding an increase in dividend yield.

These changes resulted in a reduction in our Global Equity allocation to neutral from 2% overweight. (Excluding commodities, our equity allocation remains unchanged at 2% underweight.)

Our Global Fixed Income underweight was reduced from -3% to -1%, driven by the increase in our US fixed income overweight from 7.7% to 10.2%. Gold remains 2% overweight, with cash at 1% underweight.

Since we eliminated our US high yield bond position in favor of loans early last year, loans have outperformed, returning -0.8%, while high yield bonds returned -8.5%. With large future increases in Fed policy rates priced into fixed income markets, medium duration IG corporate bond yields have risen to about 4.8% from 1.8% a year ago. Sub-investment grade US yields have risen from 3.7% to 8.4%. With this move, we added a further 2% to our overweight in intermediate-term US corporate bonds and 0.5% to US high yield, the latter by shifting away from a small European position.

Our move leaves us underweight US high yield as a sub-asset class. We believe a potentially excessive level of future Fed tightening may cause a transition from interest-led risks in global markets to credit-led risks.

We continue to envisage strong long-term returns from financial technology (fintech). However, along with our reduction in bank loans, cutting this position allowed us to establish a new thematic fixed income position in hybrid capital securities at +2.0% and an enhanced position in depressed China equities.

Preferred stock yields among investment grade financial issuers have risen to about 6.5%, well above bank common equity, yet higher up the capital structure. While some hybrid issues are rated below investment grade, the underlying issuers may be strong investment grade borrowers. Although the chance of recession is both increasing and reflected in market fears, we see the US banking system sufficiently well capitalized to absorb losses. This is less true of some experimental fintech competitors and smaller traditional banks. (We remain underweight small- and mid-cap shares).

Apart from commodities, we continue to favor higher quality, less cyclical assets providing the most reliable source of returns: fixed income yields of investment grade government borrowers and dividend payments from firms with strong balance sheets. We continue to overweight the most consistent dividend growth shares. In the US, these equities have fallen 12% this year compared to a 20% decline for the S&P 500 Index. Our largest industry overweight is pharmaceuticals, which has dropped 1% versus the 20% fall in the MSCI All-Country World Index.

In US equity markets, we continue to believe that shares discount a large rise in interest rates, but not a sharp decline in corporate profits – see our CIO bulletin of July 9, 2022). While we only expect a 3% decline in US corporate profits in our base-case economic outlook for 2023, it is not clear how long the period of poor economic performance will continue or how severely the Federal Reserve will act to depress demand. The high level of US profits and employment makes us wary of expecting strong US equity returns, as profit margins are at risk.

We remain underweight European equities, particularly small caps given severe economic vulnerability to Russian gas supplies. The European Central Bank is also at an earlier stage of tightening monetary policy. (Given regional challenges, it should not be expected to tighten in lock step with the Fed).

One exception to our concern about cyclical risk is China. Unlike the US, China's economy is depressed, with very weak property and labor markets spurring an easing cycle. Like in 2020, recent COVID restrictions pushed the local economy down sharply, but very likely in a temporary way, forcing policymakers to prioritize economic recovery. Prior to a recent, tentative rebound, Chinese share prices fell 54% from their early 2021 peak, leaving valuations depressed.

We believe the contrasting policies and cyclical conditions of the US and China means Chinese equities can recover sooner. Export strength has not helped China's shares in 2021-2022 to date, and external economic weakness is unlikely to derail their recovery. With today's move, we've raised China shares to a 2% overweight from 1%.

As we expect interest rate pressures to peak in the US in 2022, we believe better capitalized and profitable firms in secular growth industries are becoming increasingly attractive compared to cyclical industries (shares represented more strongly in "value" style indices). As of now, it is unclear how the Fed and bond market will react to incoming inflation data, which we expect only to decelerate slowly. As economic risk is priced more acutely, we will watch signs that both interest rates and credit markets stabilize, with a view to taking greater equity risk at some future point.

## ASSET CLASSES | Global USD with Alternatives Level 3



Asset Class	-2	-1	0	1	2
<b>FIXED INCOME</b>					
Developed Sovereign		█			
Developed Investment Grade Corporates					█ →
High Yield		█ ←			
Emerging Market Sovereigns				█	
<b>EQUITIES</b>					
Developed Equities		█			
Large Cap				█	
US				█	
Europe		█			
Asia ex-Japan				█ →	
Japan		█			
Small and Mid Cap		█			
US SMID Cap		█			
Non-US SMID Cap	█				
Emerging Market Equity				█	
Thematic Equity*				█ ←	
<b>CASH</b>					
		█			
<b>COMMODITIES</b>					
					█

\*Thematic equities include, Cyber security, , Pharmaceuticals and Global Natural Resources.

Please refer to the [Portfolio Allocations](#) for a comprehensive breakdown of the portfolios at each risk level.

-2 = very underweight | -1 = underweight | 0 = neutral | 1 = overweight | 2 = very overweight

Arrows indicate changes from previous GIC meeting

**Steven Wieting**  
Chief Investment Strategist  
& Chief Economist

**Malcolm Spittler**  
Senior US Economist

**Joseph Kaplan**  
Fixed Income Strategy

We believe global markets are transitioning from rate-driven risks to credit-driven risks.

Markets foresee a repeat of the Fed's 2021 policy mistake in mirror image. They are beginning to price Fed rate cuts in 2023 after 2022's large hikes.

If needed, we should not see "early cycle easing" as a positive for riskier assets.

## Quality Income Until the Hawks Fly Home

When disaster struck two years ago, policymakers scrambled to mitigate pandemic damage to the economy. Survival for many came down to more than a healthcare response. For a brief moment, US unemployment was nearly 15%, the highest since the Great Depression.

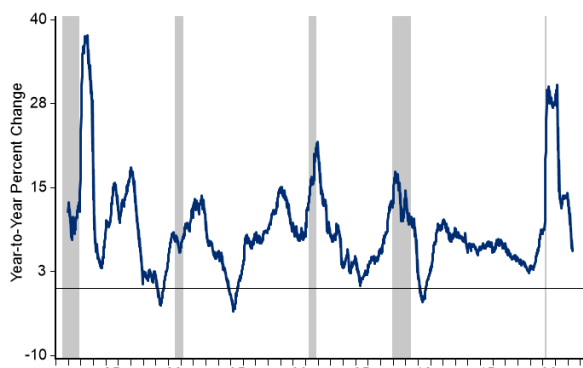
In retrospect, the severe economic contraction was the shortest in history, the result of an external shock, and deliberate restrictions to economic activity. Some aspects of the contraction were easily reversed. Yet during the months when the economy shriveled, demand for government action was unrelenting. Payroll support for shuttered businesses? Not enough. Checks for consumers? Cheaper credit? Print away.

When recovery was well underway a year later, the largesse didn't stop. What might this tell us about inflation and the "rescue in reverse?" Monetary tightening can simply go too far and fail to look ahead.

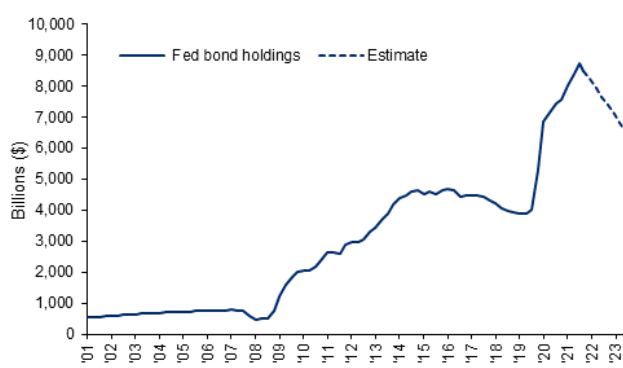
The pain of inflation is a severe, present drag on the economy with the consumer largely "cut off" from the previous flow of government aid. Yet both growth and inflation have inertia. The fear of a self-reinforcing cycle of accelerating inflation is top of mind for monetary policymakers, just as they feared a cycle of ever-lower expectations and a collapse into depression during the "compact collapse" of 2020.

What does the present course of policy suggest is ahead for the economy and inflation? The very fuel for inflation - money and credit - is now beginning to contract outright (see figures 1-2). Like inflation readings, the past 12 month gain in money creation has not been erased. But what will \$95 billion per month of contracting Federal Reserve credit do in the next 12 months?

**Figure 1: US Money Supply (zero maturity) Y/Y%**



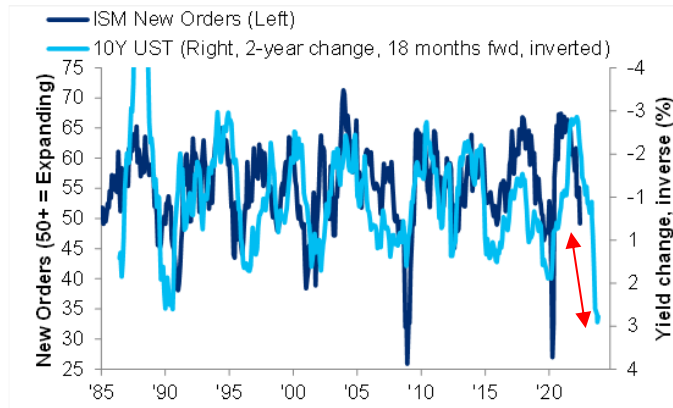
**Figure 2: Federal reserve credit, path of Quantitative Tightening Through 2023**



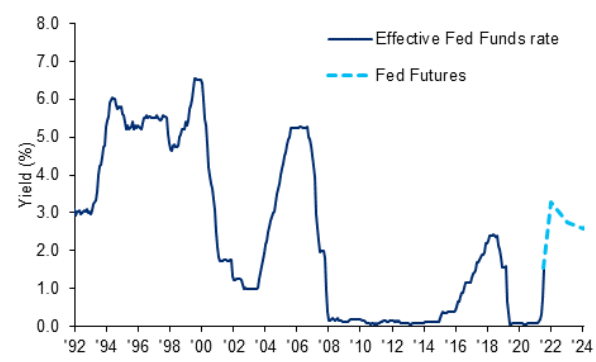
Source: Haver as of July 13, 2022. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Notes: Shaded regions are recessions. Money stock measure from Haver Analytics which accounts for M2 + ICI institutional money market funds less short denomination time deposits, linked to the discontinued original MZM series.

To the extent that macro stimulus drove inflation, it is now reversing into restraint. At what point can we imagine consumer prices falling instead of rising? Should policy tightening - which leads the economy by a year or more - rush ahead to the point that easing is required again to reverse the next self-induced economic crisis? Markets are, in fact, beginning to price this (see figures 3-4). Impatience drove excess easing in 2021. Impatience with the delayed effects of "medicinal tightening" can lead to overdose.

**Figure 3: Lagged change in 10-year US Treasuries vs ISM manufacturing new orders**



**Figure 4: Fed funds rate expected**

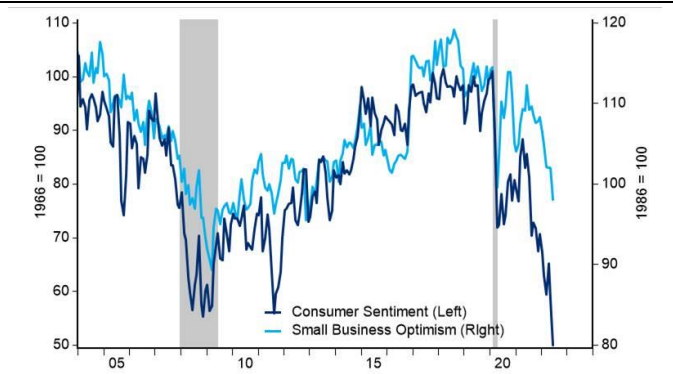


Source: Haver as of July 13, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

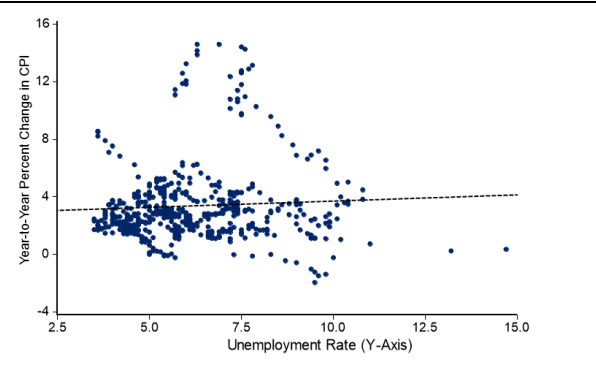
Policy seems to reflect micro-management and impatience.

The future level of goods and services supplies are even more complex and uncertain to predict than demand. Unfortunately, the mere idea that policymakers will use a monetary policy-induced recession to fight inflation is likely to induce output caution among producers (see figure 5). Rather than race to profit from demand with rising supplies, output caution may require a lower equilibrium for both. With a tenuous connection between employment and consumer prices, policymakers might mistakenly sacrifice a tremendous loss of jobs for trivial differences in the inflation rate (see figure 6).

**Figure 5: US Small Business vs Consumer Sentiment**



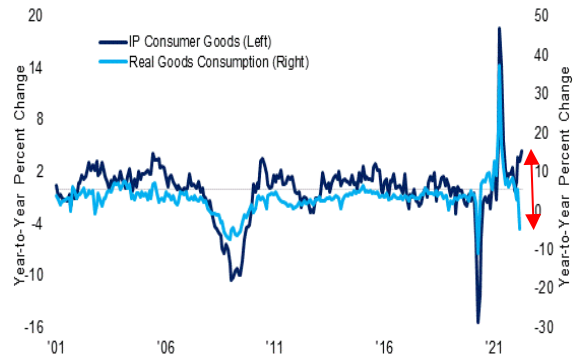
**Figure 6: Unemployment Rate vs CPI Inflation**



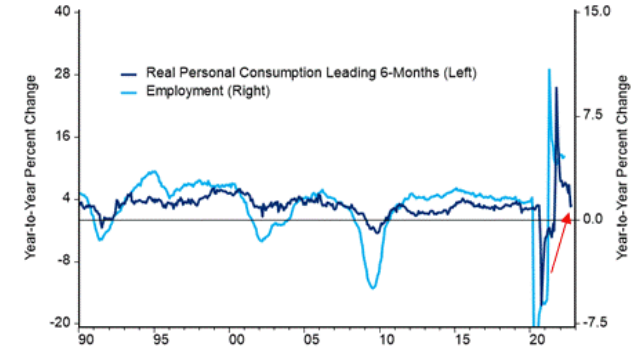
Source: Haver as of July 13, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Note: Shaded regions are recessions.

Of course, employment is rising now, rather than falling. This is because production - which requires labor - fell short of demand during the shutdown of 2020 while stimulus raised demand through 2021 (see figure 7). Yet the future course of demand suggests a more difficult labor market ahead (see figure 8).

**Figure 7: Real consumer goods spending vs industrial production**



**Figure 8: Real personal consumption leads employment gains**



Source: Haver as of July 8, 2022. Note: Red arrows in figure 7 highlight the divergence between real goods consumption and production which should help alleviate inflation pressures. Arrow in figure 8 highlights the slowing growth rate in real personal consumption which could indicate slower employment growth ahead. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

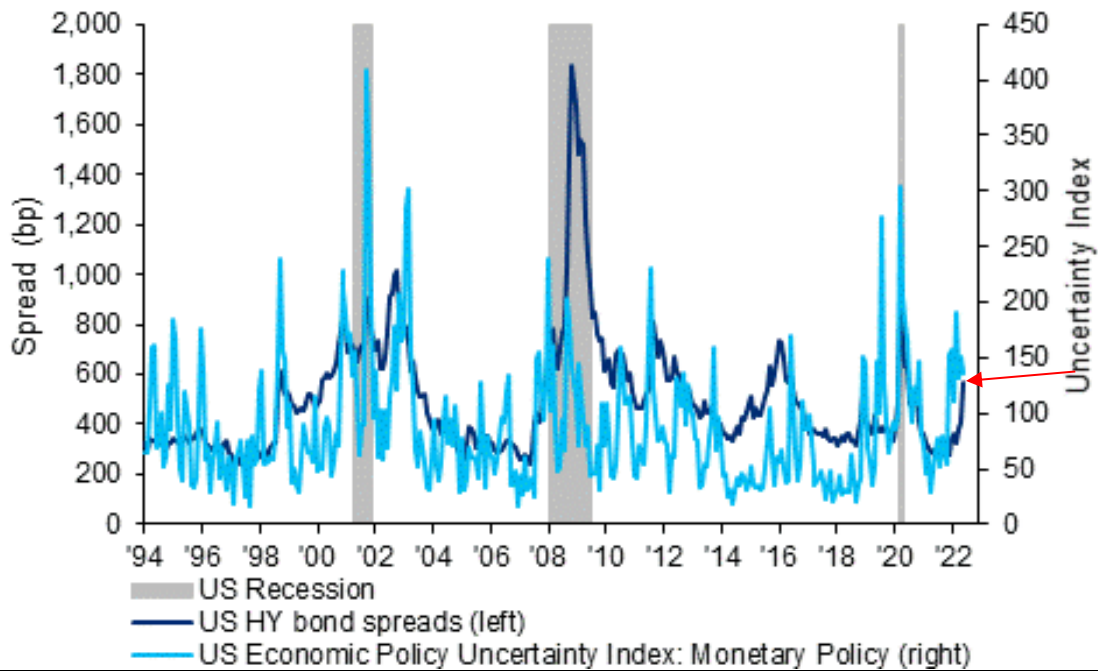
## Policy Stands on the Cusp of a Recession

For many, the investment point of view is different than for policymakers charged with protecting the public wellbeing. The lack of net US employment declines thus far is keeping the pressure to fight inflation alive at central banks. With policy tightening rapidly, many investors are sidelined, looking for a recessionary collapse as a signal to buy, just as they could in the spring of 2020.

When fundamentals are deeply depressed and poised to recover, future returns are usually strong, and risks are in the rear-view mirror. This is why many call for ever-larger and more rapid Fed tightening steps. Distress serves up investment opportunity. Yet it is the job of policymakers to avoid an unneeded collapse in the first place. Today, credit markets are at the cusp of worsening the outlook from a slowdown to a shutdown. Without attention to downside risks, the day may be close at hand for policymakers when it will be too late to choose between these options (see figure 9).

While many investors would prefer a “quick recession,” policymakers may find it difficult to avoid overshoot.

**Figure 9: High yield spreads vs monetary policy uncertainty index**



Source: Bloomberg, as of July 12, 2022. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Indices are unmanaged and forecasts are expression of opinion. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary.

### Has Recession Already Occurred? “Not Yet” is “Not Good”

At his June press conference, Fed Chairman Powell noted the strength of consumer spending as the true indicator of the economy’s performance rather than the 1.6% contraction in real GDP during the first quarter. At the time, real consumer spending was reported up 3.1% in the quarter. Export losses, government spending declines and inventories led the output losses.

Since then, however, the pace of real consumer spending for the first quarter was revised down to a 1.8% pace. The second quarter is tracking a 1% gain. The probability that both first and second quarter US GDP contracts in real terms is quite high, at least prior to the many data revisions to come in future years.

Does this in fact mean the worst is over for markets as forward looking investors can now discount recovery? Unfortunately, the headline output declines are not indicative of a true recession, which can still come. Recession is defined by broad declines in production, employment and business sales. Production and employment are still rising and likely to make further gains over the remainder of 2022 (see figures 10-11).

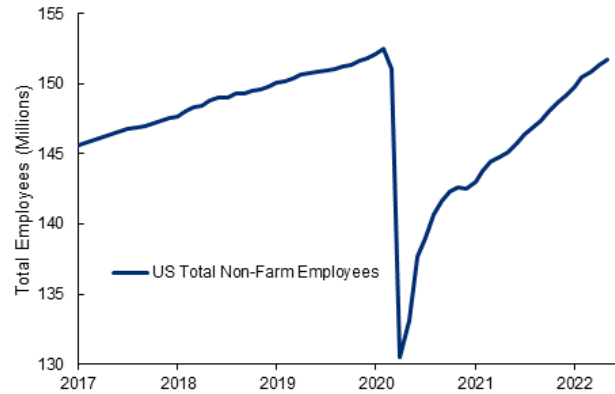
The Fed cites strong consumer demand that was largely revised away.

Still, investors should be careful not to jump to the conclusion that an economic contraction is already far along.

Figure 10: US Industrial Production



Figure 11: US Employment Level



Source: Haver as of July 11, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

Markets are indeed forward looking. The reason equities bottom during recessions is depressed corporate profits rebound in recovery. However, in the US case, profits are high and have yet to fall, despite the 1H GDP contraction (see figures 12-13). This is why it is premature to consider adding cyclical investments when cyclical contraction hasn't yet unfolded.

Every historic case since the WW II shows equities leading economic recovery, just as they led contraction.

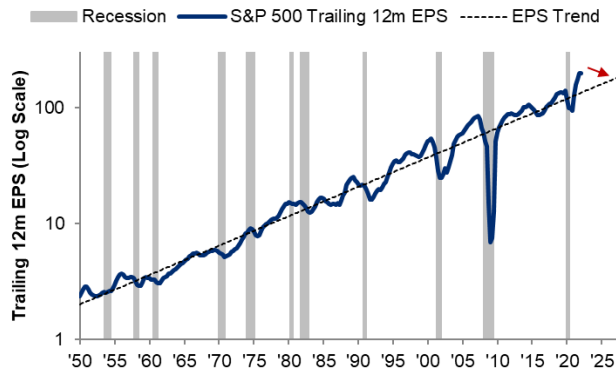
What happens if there is a recession? Since WWII, there have been 12 US recessions. For the data below using the S&P 500 as proxy for US equities, we exclude 2020's recession given its unusual nature (it was short, due to an exogenous shock and mitigated by an unusually large stimulus program; including it in the data set would skew results and conclusions). Data below is shown for the period 1945 to the present.

Before assuming the decline is all over, note that in 10 of 11 post-World War II recessions (apart from the COVID shock), US equities fell through half or more of the recession period.

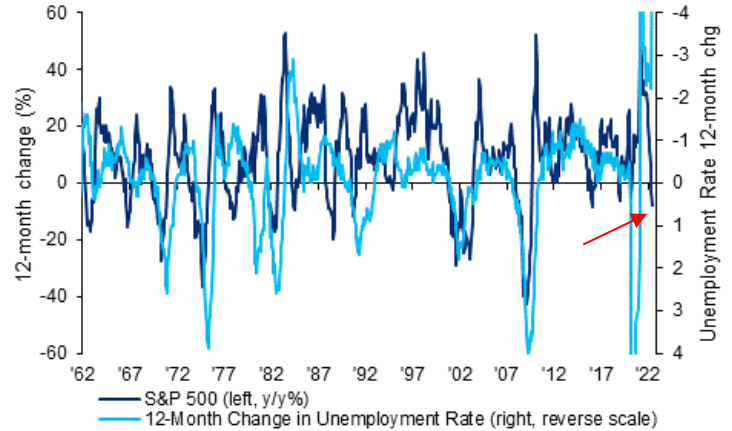
- 1) The 11 recessions (ex-2020) have lasted 11 months on average.
- 2) US equities peaked on average 5 months before recession began, and troughed 5 months before the recession ended. In other words, equities were still declining 6 months into actual recessions.
- 3) The longest lead time for equities to peak before a recession was 12 months, the shortest was 0.
- 4) Most important: In 10 of 11 cases, US equities fell through half or more of the recession period.

The Fed should be frightened by what it has put in motion before very long. If it is trying to soften labor markets (with US employment still below late 2019), increasingly it seems a very sharp tightening of monetary policy isn't consistent with achieving its dual mandate in 2023. While we are not claiming predictive value, share price declines to date are consistent with 1-2 million US job losses in 2023.

**Figure 12: S&P 500 earnings per share vs trend**



**Figure 13: S&P 500 vs unemployment rate (year-to-year percent change)**



Source: Haver as of July 11, 2022. Note: red arrow in figure 12, highlights that the current 12-month trailing EPS is exceeding its long run trend suggesting it may slow. Red arrow in figure 13, highlights the sharp fall in the S&P 500 that often is a precursor to increases in the unemployment rate. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

### Between Correction and Collapse

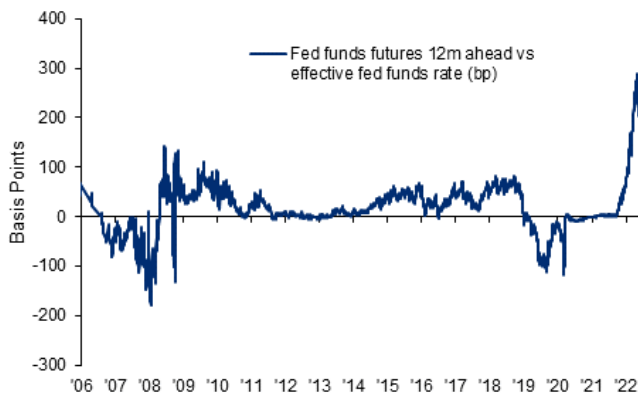
At our Global Investment Committee, we contemplated markets that heavily discounted tighter monetary policy and higher inflation, but not a deep economic collapse. Markets also don't contemplate relief from these conditions.

Relief may come with economic loss, but alternatively with reduced monetary pressure. For now, this is the last thing Fed policymakers have in mind.

While markets are an accurate predictor of the Fed in the near-term, they often discount more Fed tightening than is ultimately delivered or sustained over longer periods (see figure 14).

While we are not claiming predictive value, share price declines to date are historically consistent with 1-2 million US job losses in 2023.

**Figure 14: Spread between 12-month ahead Fed-Funds futures and current Fed Funds effective rate**

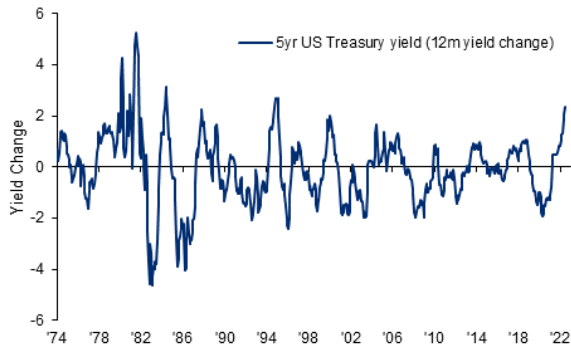


Source: Bloomberg, as of April 2022. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Indices are unmanaged and forecasts are expression of opinion. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. For illustrative purposes only. Past performance is no guarantee of future results. Real results may vary.

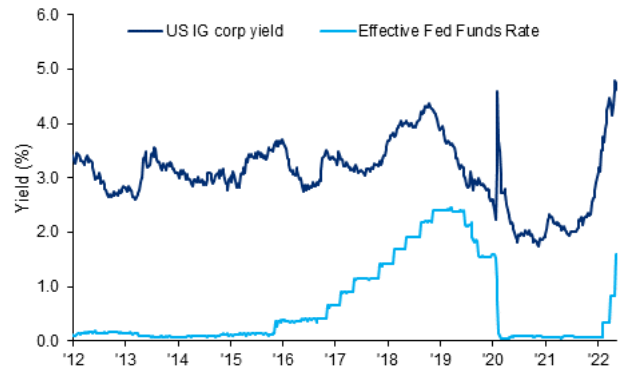
The 12-month increases in medium-duration US Treasury yields have been among the largest in US history (see figure 15). The yield on US investment grade corporate securities has risen to the highest level since 2010 (see figure 16). In the long swath of history, this is not a "high" interest rate level. However, we believe this is an attractive investment in the current cyclical backdrop, with US municipal bonds even more attractive for certain US taxed investors.



**Figure 15: 12-month change in 5-year US Treasury yield**



**Figure 16: Investment grade US corporate bond yields and effective Fed Funds rate**



Source: Haver as of July 11, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

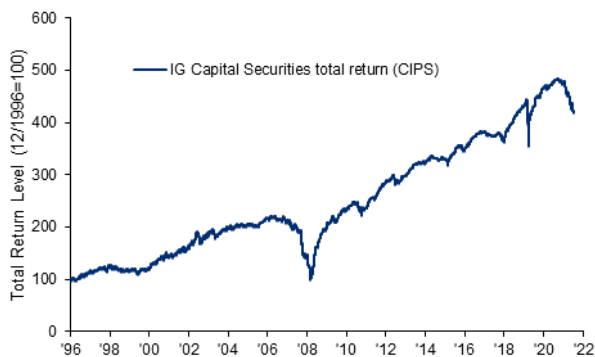
With credit risk rising for economically sensitive low-grade borrowers and the variable rate loan market already pricing in a 2 percentage point further rise in the Fed funds rate over the next year, we eliminated our loan position. We did this in favor of IG corporate bonds and another fixed income opportunity that has seen a greater correction. Since we eliminated US high yield bonds entirely in February 2021 in favor of loans, bonds have returned -0.8% while loans have lost 8.5%.

While the high yield bond market has now partially priced in an economic contraction, hybrid preferred securities appear to be a higher quality, stronger yield opportunity that has suffered in parallel. The appealing area of the asset class is dominated by investment grade financial firms. To add a 2.0% position, we also trimmed a small thematic overweight to Financial Technology shares. (We also eliminated a small allocation to European high yield debt, to begin a very small -- underweight -- position in US high yield.)

Fintech firms have fallen hard, losing 29% since we added a position in late January. Like oil services firms, we could imagine a strong five-year return for the industry. In the immediate backdrop, however, we would favor the preferred stock of highly capitalized large banks paying dividends of 6.5% after a 12% downward price correction (see figures 17-18).

Without shutting off recovery opportunities, we find room for more high yielding, high grade bonds in portfolios as we await more growth friendly macro policies.

**Figure 110: Bank preferred return IG Capital Securities total return**



**Figure 111: Bank preferred return IG Capital Securities yield**



Source: Haver as of July 11, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

Russia/Ukraine commodity losses may still extract a toll and warrant increased investment. Yet cyclical concerns for commodities require risk management.

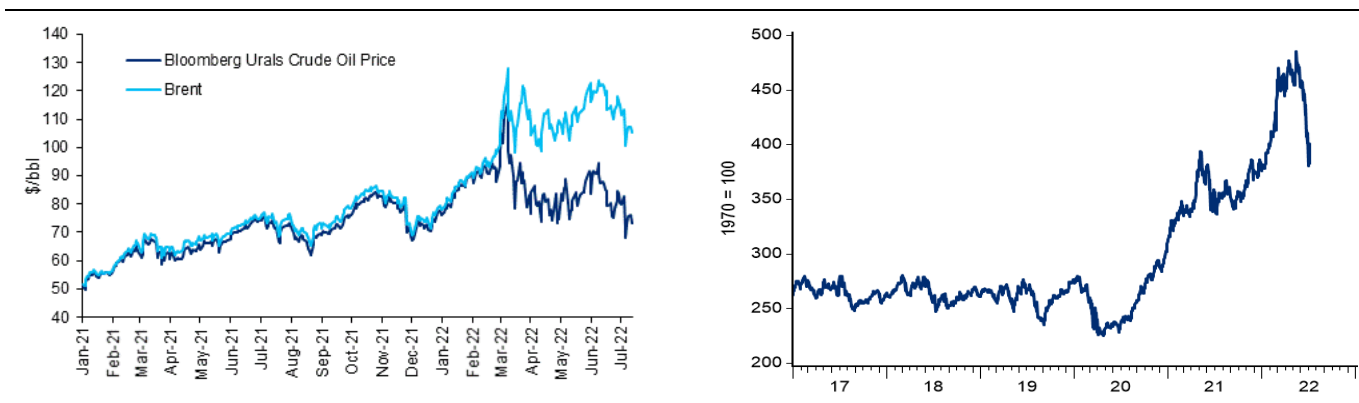
The oil services sector has seen its shares underperform the commodity price. With yield and output growth, shares likely have a much stronger long-term return than the oil and gas price. However, shares in the sector have a beta to the world equity market of 1.6X. As we continue to overweight the energy sector within our natural resources thematic allocation, we see the overlap of these commodity risks as too large at this point.

Crude oil itself has risen from an epic collapse in 2020 to the second highest level in history in recent months. Russia's invasion of Ukraine and consequent western sanctions represent one of history's largest potential oil shocks. However, the redirection of global commodities flows to the east has predictably assuaged this (see figure 19).

This does not eliminate a broad commodity shock entirely, particularly for many important consumable commodities which our investment covers. With that said, central banks setting policy on a course for economic contraction will batter cyclical commodities (see figures 20-21).

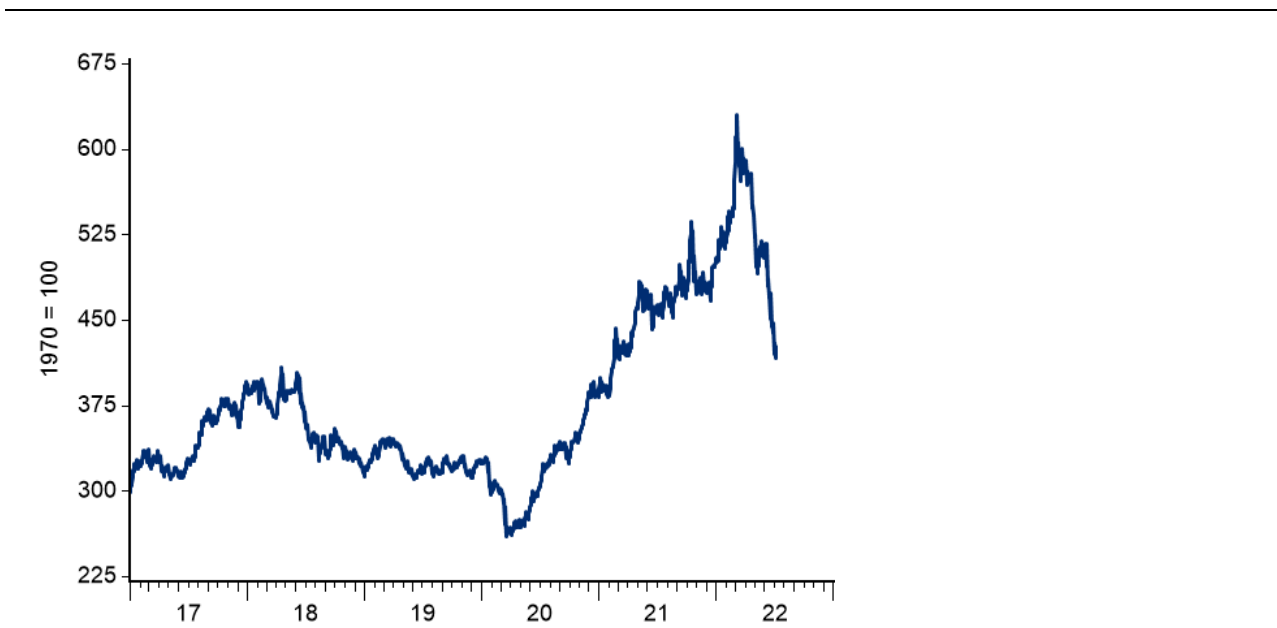
Figure 19: Key China Oil Import Price measure vs Global

Figure 20: S&P Goldman Sachs Agricultural and Livestock index



Source: Haver as of July 11, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

Figure 21: S&P Goldman Sachs Industrial Metals index

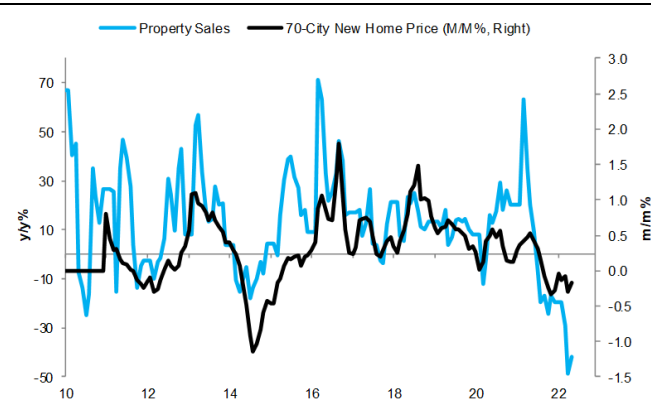


Source: Haver as of July 11, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

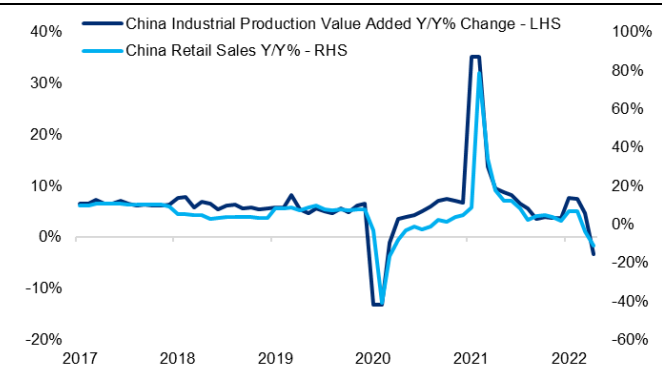
Meanwhile, as we discussed in each of the two most recent Quadrant reports, our confidence in the outlook for China's equity markets is rising for exactly the opposite reasons we would site for caution in cyclical shares of the US and other Developed Markets.

Unlike the US, with a high present level of profits and employment, China's economy is weak with much room for recovery. Its property sector has seen a roughly 50% sales decline with youth unemployment reported anecdotally near 20% (see figure 22).

**Figure 22: China property sales and prices**



**Figure 23: China retail sales and industrial production**



Source: Bloomberg and Haver as of July 11, 2022. Past performance is no guarantee of future returns. Real results may vary. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only.

Recent Covid restrictions in China pushed retail sales and industrial production to the largest declines since 1Q 2020 (see figure 23), while the Chinese government is desperately seeking to restore growth closer to its targets. This suggests China's economic growth will be strengthening in 2023 while the US's slows.

Investor memories would indeed need to be short to not recall what happened after an artificially constrained economy rebounded in 2020 to see what can be in China. This is not an argument about long run growth potential, command vs market economies, or geopolitical struggles. China's equity market has dropped more than 50% at a recent low, its valuation is 13X, well below its own history during an economic contraction while macroeconomic policy is seeking recovery.

We believe the currently asynchronous economies of China and the US will set a different course in equity markets over the short- to intermediate term. China's remarkable policy tightening of 2021 crashed its economy. It now seems at the initial stage of reversal and repair. Unfortunately, China's policy looks to be a leading indicator of the US's for the time being. Policymakers, please take note.

Unfortunately, China's exaggerated tightening cycle of 2021 appears to be predictive of the US's in 2022. It's easing this year should ideally set the pace in 2023.

# Portfolio allocations

This section shows the strategic and tactical asset allocations. The Quant Research & Global Asset Allocation (QRGAA) team creates strategic asset allocations (SAAs) using the [CPB Adaptive Valuations Strategy](#) (AVS) methodology on an annual basis. Global Investment Committee (GIC) provides underweight and overweight decisions to AVS's Global USD without Hedge Funds Risk Level 1 through Level 5 portfolios. QRGAA then creates tactical allocations for all other profiles or subprofiles such as Global USD with Hedge Funds and Illiquids PE & RE Level 2 through Level 5 portfolios. These sample portfolios included below reflect 2022 SAAs and the tactical over/under weights expressed at the July 13, 2022 GIC meeting.

## Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 2

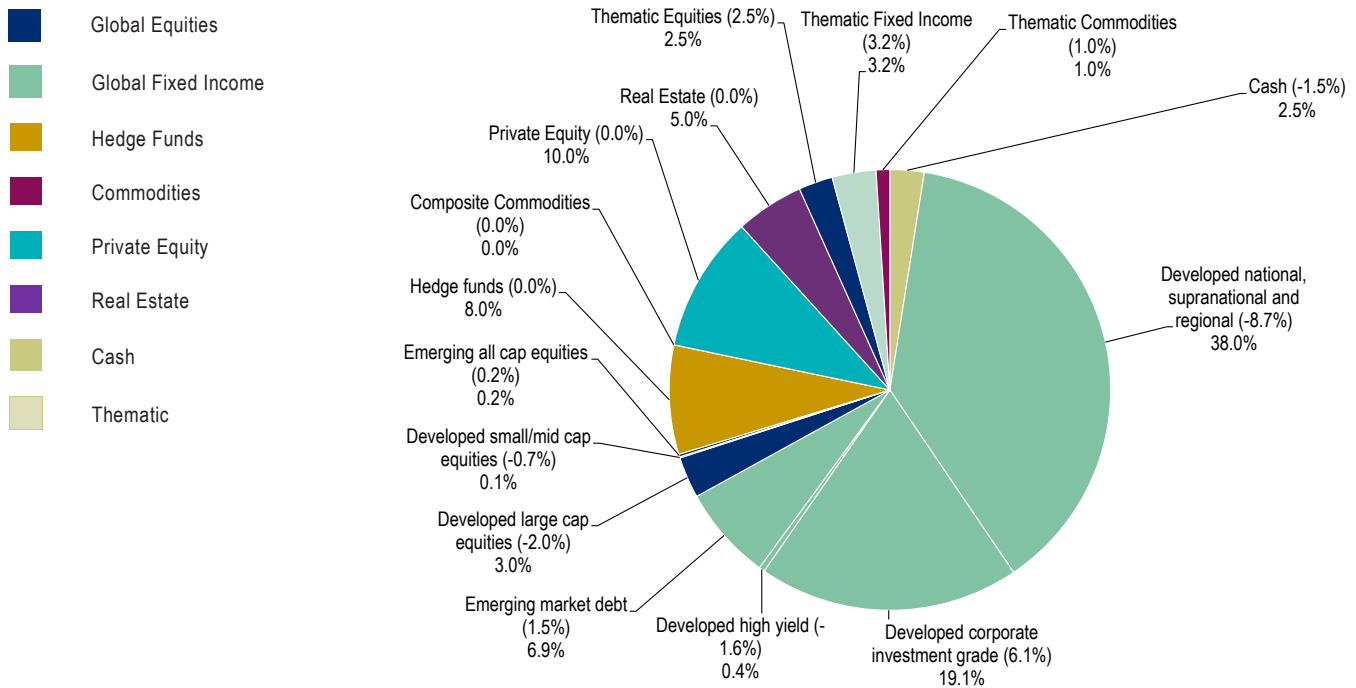
Risk Level 2 is designed for investors who emphasize capital preservation over return on investment, but who are willing to subject some portion of their principal to increased risk in order to generate a potentially greater rate of return on investment.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	4.0	2.5	-1.5
Fixed Income	67.1	67.7	0.5
Developed Investment Grade	59.8	57.1	-2.6
US	34.2	42.4	8.2
Government	14.8	15.7	0.9
Inflation-Linked	2.1	2.3	0.2
Short	3.9	2.4	-1.6
Intermediate	6.1	6.3	0.2
Long	2.6	4.7	2.1
Securitized	10.9	12.0	1.2
Credit	8.6	14.7	6.1
Short	1.2	1.4	0.2
Intermediate	4.5	10.4	5.9
Long	2.9	2.9	0.0
Europe	19.5	12.3	-7.3
Government	15.2	7.9	-7.3
Credit	4.4	4.4	0.0
Australia	0.4	0.4	0.0
Government	0.4	0.4	0.0
Japan	5.6	2.1	-3.5
Government	5.6	2.1	-3.5
Developed High Yield	2.0	0.4	-1.6
US	1.5	0.4	-1.1
Europe	0.5	0.0	-0.5
Emerging Market Debt	5.4	6.9	1.5
Asia	0.9	2.0	1.1
Local currency	0.5	1.0	0.6
Foreign currency	0.5	1.0	0.5
EMEA	2.8	2.8	-0.0
Local currency	1.4	1.4	-0.0
Foreign currency	1.4	1.4	-0.0
LatAm	1.7	2.1	0.4
Local currency	0.8	0.8	-0.0
Foreign currency	0.8	1.3	0.4
Thematic Fixed Income	0.0	3.2	3.2
US Bank Loans	0.0	1.2	1.2
Preferreds	0.0	2.0	2.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	5.9	5.8	-0.0
Developed Equities	5.9	3.1	-2.7
Developed Large Cap Equities	5.1	3.0	-2.0
US	3.5	2.2	-1.3
Canada	0.2	0.1	-0.1
UK	0.2	0.1	-0.1
Switzerland	0.1	0.1	-0.1
Europe ex UK ex Switzerland	0.5	0.2	-0.3
Asia ex Japan	0.2	0.1	-0.1
Japan	0.3	0.1	-0.2
Developed Small/Mid Cap Equities	0.8	0.1	-0.7
US	0.4	0.1	-0.4
Non-US	0.4	0.0	-0.3
Emerging All Cap Equities	0.0	0.2	0.2
Asia	0.0	0.2	0.2
China	0.0	0.1	0.1
Asia (ex China)	0.0	0.1	0.1
EMEA	0.0	0.0	0.0
LatAm	0.0	0.0	0.0
Brazil	0.0	0.0	0.0
LatAm ex Brazil	0.0	0.0	0.0
Thematic Equities	0.0	2.5	2.5
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	1.5	1.5
Cyber Security	0.0	0.0	0.0
Fintech	0.0	0.0	0.0
Natural Resources	0.0	1.0	1.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	1.0	1.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	1.0	1.0
Gold	0.0	1.0	1.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
Hedge Funds	8.0	8.0	0.0
Private Equity	10.0	10.0	0.0
Real Estate	5.0	5.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

## Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 2 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

### Core Positions

Global equities have a neutral position, global fixed income has an overweight of +0.5%, cash has an underweight of -1.5% with gold overweight at +1.0%.

Within equities, developed large cap equities are at an underweight position of -2.0% and small/mid cap equities are at an underweight position of -0.7%. Emerging market equities have a slight overweight of +0.2%. Thematic equities have an overweight of +2.5%.

Within fixed income, developed investment grade has an underweight position of -2.6%; developed high yield has an underweight position of -1.6% and emerging market debt has an overweight position of +1.5%. Thematic fixed income has an overweight of +3.2%.

Hedge Fund allocation in the tactical portfolio is 8%. Private Equity and Real Estate allocations are 10% and 5%, respectively. All these three asset classes positionings are neutral.

# Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 3

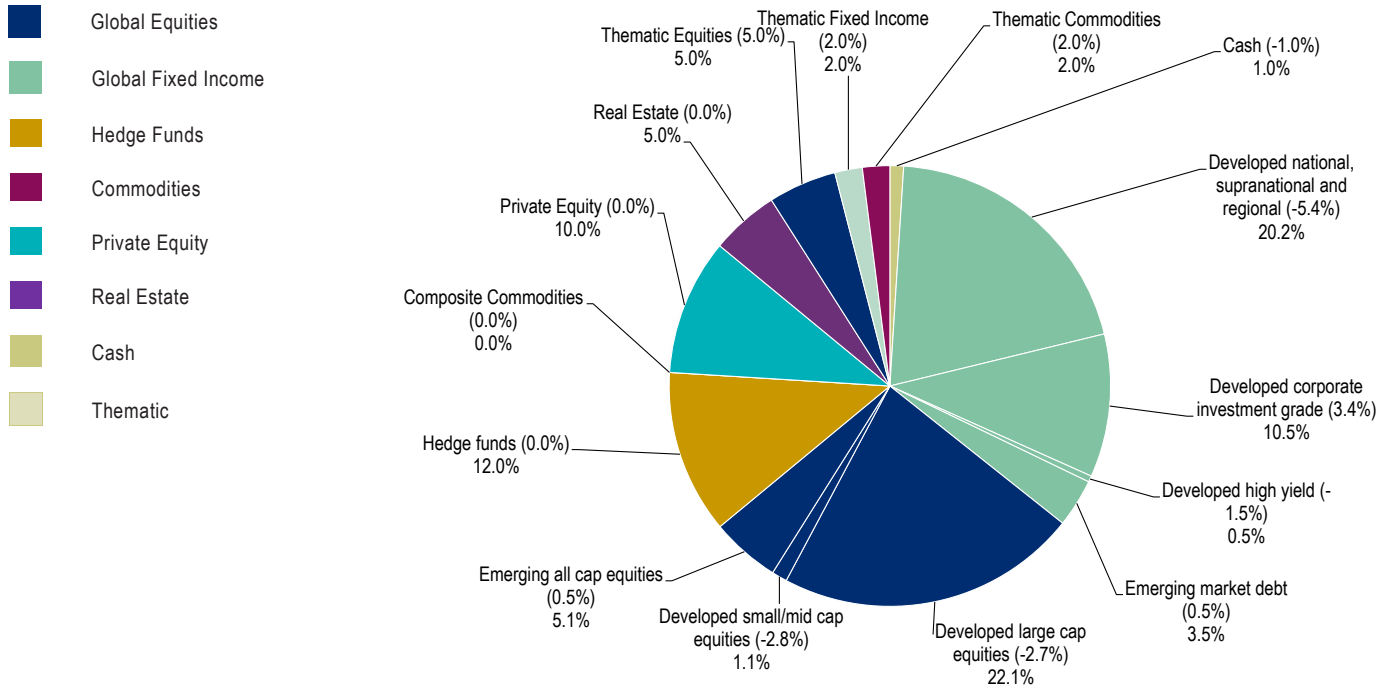
Risk Level 3 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. Risk Level 3 may be appropriate for investors willing to subject their portfolio to additional risk for potential growth in addition to a level of income reflective of his/her stated risk tolerance

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	2.0	1.0	-1.0
Fixed Income	37.7	36.7	-1.0
Developed Investment Grade	32.7	30.7	-2.0
US	18.7	26.7	7.9
Government	8.1	12.7	4.6
Inflation-Linked	1.1	2.2	1.0
Short	2.2	0.2	-1.9
Intermediate	3.3	6.8	3.5
Long	1.4	3.5	2.1
Securitized	5.9	5.6	-0.3
Credit	4.7	8.3	3.6
Short	0.6	0.6	0.0
Intermediate	2.5	6.1	3.6
Long	1.6	1.6	0.0
Europe	10.7	3.8	-6.8
Government	8.3	1.7	-6.6
Credit	2.4	2.2	-0.2
Australia	0.2	0.2	0.0
Government	0.2	0.2	0.0
Japan	3.1	0.0	-3.1
Government	3.1	0.0	-3.1
Developed High Yield	2.0	0.5	-1.5
US	1.5	0.5	-1.0
Europe	0.5	0.0	-0.5
Emerging Market Debt	3.0	3.5	0.5
Asia	0.5	1.0	0.5
Local currency	0.3	0.6	0.3
Foreign currency	0.3	0.5	0.2
EMEA	1.6	1.6	0.0
Local currency	0.8	0.8	0.0
Foreign currency	0.8	0.8	0.0
LatAm	0.9	0.9	0.0
Local currency	0.5	0.5	0.0
Foreign currency	0.5	0.5	0.0
Thematic Fixed Income	0.0	2.0	2.0
US Bank Loans	0.0	0.0	0.0
Preferreds	0.0	2.0	2.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	33.3	33.3	0.0
Developed Equities	28.7	23.2	-5.5
Developed Large Cap Equities	24.7	22.1	-2.7
US	17.2	16.2	-1.0
Canada	0.9	0.8	-0.1
UK	1.0	1.0	-0.1
Switzerland	0.7	0.6	-0.1
Europe ex UK ex Switzerland	2.4	1.7	-0.7
Asia ex Japan	0.9	0.8	-0.1
Japan	1.7	1.1	-0.6
Developed Small/Mid Cap Equities	3.9	1.1	-2.8
US	2.2	0.8	-1.4
Non-US	1.7	0.4	-1.4
Emerging All Cap Equities	4.6	5.1	0.5
Asia	3.8	4.6	0.7
China	1.5	2.4	0.9
Asia (ex China)	2.3	2.1	-0.2
EMEA	0.4	0.2	-0.2
LatAm	0.3	0.3	-0.0
Brazil	0.2	0.2	-0.0
LatAm ex Brazil	0.1	0.1	-0.0
Thematic Equities	0.0	5.0	5.0
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	2.0	2.0
Cyber Security	0.0	1.0	1.0
Fintech	0.0	0.0	0.0
Natural Resources	0.0	2.0	2.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	2.0	2.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	2.0	2.0
Gold	0.0	2.0	2.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
Hedge Funds	12.0	12.0	0.0
Private Equity	10.0	10.0	0.0
Real Estate	5.0	5.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

# Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 3 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have a neutral position, global fixed income has an underweight of -1.0%, cash has an underweight of -1.0% with gold overweight at +2.0%.

Within equities, developed large cap equities have an underweight position of -2.7% and developed small/mid cap equities have an underweight position of -2.8%. Emerging market equities have an overweight position of +0.5%. Thematic equities have an overweight position of +5.0%.

Within fixed income, developed investment grade debt has an underweight position of -2.0%; developed high yield has an underweight position of -1.5%; emerging market debt has an overweight position of +0.5%. Thematic fixed income has an overweight position of +2.0%.

Hedge Fund allocation in the tactical portfolio is 12%. Private Equity and Real Estate allocations are 10% and 5%, respectively. All these three asset classes positionings are neutral.

## Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 4

Risk Level 4 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. They are willing to subject a large portion of their portfolio to greater risk and market value fluctuations in anticipation of a potentially greater return on investment. Investors may have a preference for investments or trading strategies that may assume higher-than-normal market risks and/or potentially less liquidity with the goal (but not guarantee) of commensurate gains.

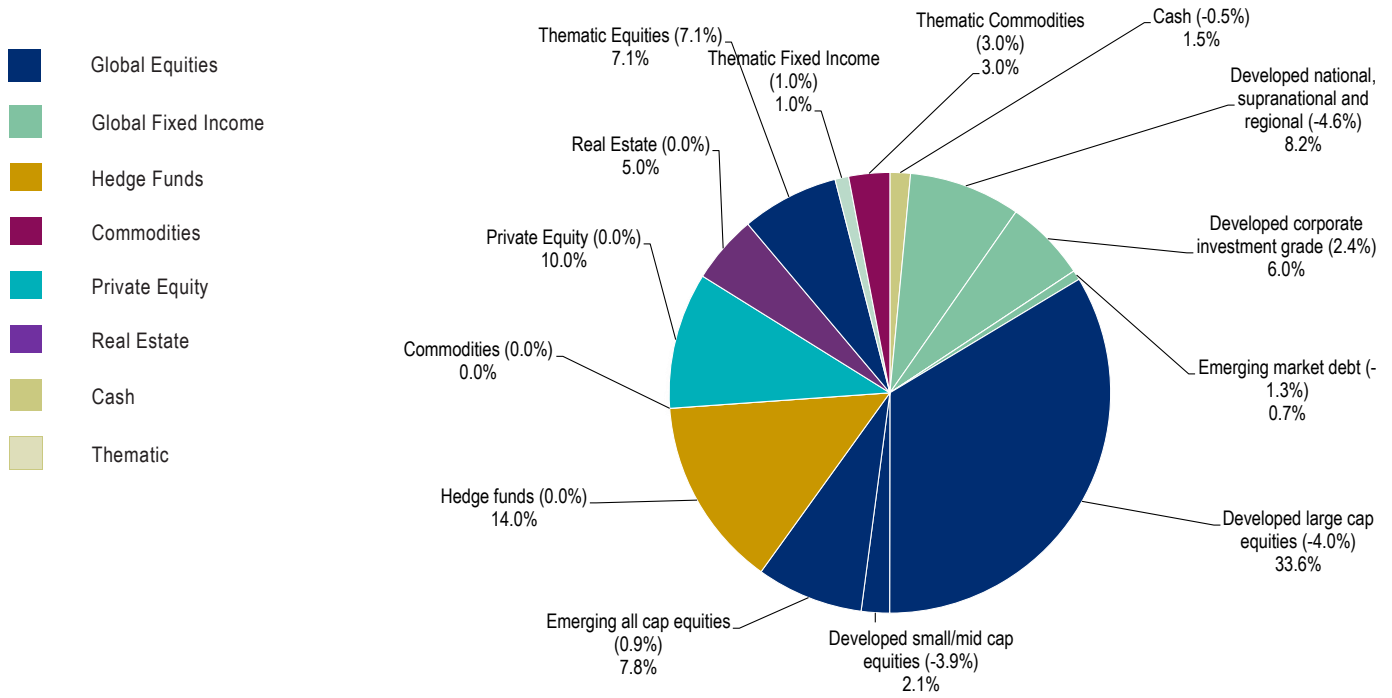
Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	2.0	1.5	-0.5
Fixed Income	18.4	15.9	-2.5
Developed Investment Grade	16.4	14.2	-2.2
US	9.4	13.8	4.4
Government	4.0	7.6	3.6
Inflation-Linked	0.6	0.5	-0.0
Short	1.1	0.1	-1.0
Intermediate	1.7	4.3	2.6
Long	0.7	2.7	2.0
Securitized	3.0	0.4	-2.6
Credit	2.4	5.8	3.4
Short	0.3	0.0	-0.3
Intermediate	1.2	5.5	4.2
Long	0.8	0.3	-0.5
Europe	5.4	0.4	-5.0
Government	4.2	0.2	-4.0
Credit	1.2	0.2	-1.0
Australia	0.1	0.0	-0.1
Government	0.1	0.0	-0.1
Japan	1.5	0.0	-1.5
Government	1.5	0.0	-1.5
Developed High Yield	0.0	0.0	0.0
US	0.0	0.0	0.0
Europe	0.0	0.0	0.0
Emerging Market Debt	2.0	0.7	-1.3
Asia	0.3	0.4	0.1
Local currency	0.2	0.2	0.1
Foreign currency	0.2	0.2	0.0
EMEA	1.0	0.0	-1.0
Local currency	0.5	0.0	-0.5
Foreign currency	0.5	0.0	-0.5
LatAm	0.6	0.3	-0.3
Local currency	0.3	0.0	-0.3
Foreign currency	0.3	0.3	-0.1
Thematic Fixed Income	0.0	1.0	1.0
US Bank Loans	0.0	0.0	0.0
Preferreds	0.0	1.0	1.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	50.7	50.7	0.0
Developed Equities	43.7	35.7	-8.0
Developed Large Cap Equities	37.7	33.6	-4.0
US	26.2	25.4	-0.8
Canada	1.3	1.2	-0.1
UK	1.6	1.3	-0.3
Switzerland	1.0	0.6	-0.4
Europe ex UK ex Switzerland	3.6	2.2	-1.4
Asia ex Japan	1.3	1.2	-0.1
Japan	2.6	1.5	-1.0
Developed Small/Mid Cap Equities	6.0	2.1	-3.9
US	3.4	1.5	-1.8
Non-US	2.7	0.6	-2.1
Emerging All Cap Equities	7.0	7.8	0.9
Asia	5.8	7.1	1.2
China	2.3	3.8	1.5
Asia (ex China)	3.5	3.3	-0.2
EMEA	0.6	0.3	-0.4
LatAm	0.5	0.5	-0.0
Brazil	0.3	0.3	-0.0
LatAm ex Brazil	0.2	0.2	-0.0
Thematic Equities	0.0	7.1	7.1
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	2.8	2.8
Cyber Security	0.0	1.4	1.4
Fintech	0.0	0.0	0.0
Natural Resources	0.0	3.0	3.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	3.0	3.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	3.0	3.0
Gold	0.0	3.0	3.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
Hedge Funds	14.0	14.0	0.0
Private Equity	10.0	10.0	0.0
Real Estate	5.0	5.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.



# Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 4 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have a neutral position, global fixed income has an underweight of -2.5%, cash has an underweight of -0.5% with gold overweight at +3.0%.

Within equities, developed large cap equities have an underweight position of -4.0% and developed small/mid cap equities have an underweight position of -3.9%. Emerging market equities have an overweight of +0.9%. Thematic equities have an overweight of +7.1%.

Within fixed income, developed investment grade has an underweight position of -2.2%; developed high yield has a neutral position and emerging market debt has an underweight position of -1.3%. Thematic fixed income has an overweight of +1.0%.

Hedge Fund allocation in the tactical portfolio is 14%. Private Equity and Real Estate allocations are 10% and 5%, respectively. All these three asset classes positionings are neutral.

# Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 5

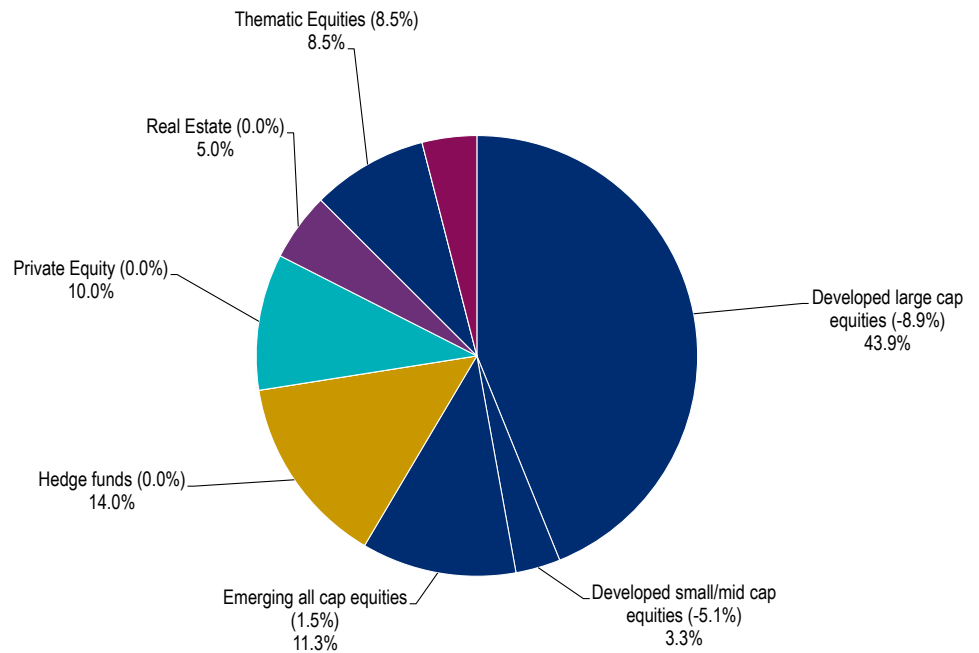
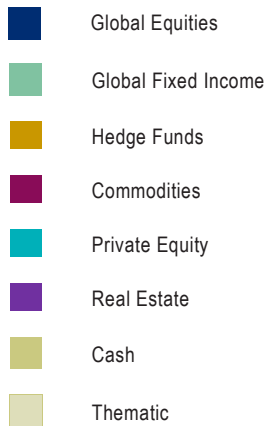
Risk Level 5 is designed for investors who emphasize return on investment. They are willing to subject their entire portfolio to greater risk and market value fluctuations in anticipation of a potentially greater return on investments. Investors may have a preference for investments or trading strategies that may assume higher than-normal market risks and/or potentially less liquidity with the goal (but not guarantee) of commensurate gains. Clients may engage in tactical or opportunistic trading, which may involve higher volatility and variability of returns.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	0.0	0.0	0.0
Fixed income	0.0	0.0	0.0
Developed Investment Grade	0.0	0.0	0.0
US	0.0	0.0	0.0
Government	0.0	0.0	0.0
Inflation-Linked	0.0	0.0	0.0
Short	0.0	0.0	0.0
Intermediate	0.0	0.0	0.0
Long	0.0	0.0	0.0
Securitized	0.0	0.0	0.0
Credit	0.0	0.0	0.0
Short	0.0	0.0	0.0
Intermediate	0.0	0.0	0.0
Long	0.0	0.0	0.0
Europe	0.0	0.0	0.0
Government	0.0	0.0	0.0
Credit	0.0	0.0	0.0
Australia	0.0	0.0	0.0
Government	0.0	0.0	0.0
Japan	0.0	0.0	0.0
Government	0.0	0.0	0.0
Developed High Yield	0.0	0.0	0.0
US	0.0	0.0	0.0
Europe	0.0	0.0	0.0
Emerging Market Debt	0.0	0.0	0.0
Asia	0.0	0.0	0.0
Local currency	0.0	0.0	0.0
Foreign currency	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
Local currency	0.0	0.0	0.0
Foreign currency	0.0	0.0	0.0
LatAm	0.0	0.0	0.0
Local currency	0.0	0.0	0.0
Foreign currency	0.0	0.0	0.0
Thematic Fixed Income	0.0	0.0	0.0
US Bank Loans	0.0	0.0	0.0
Preferreds	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	71.0	67.0	-4.0
Developed Equities	61.2	47.2	-14.0
Developed Large Cap Equities	52.8	43.9	-8.9
US	36.7	36.6	-0.2
Canada	1.8	0.8	-1.1
UK	2.2	0.8	-1.4
Switzerland	1.5	0.3	-1.2
Europe ex UK ex Switzerland	5.1	2.3	-2.8
Asia ex Japan	1.9	1.5	-0.4
Japan	3.6	1.7	-1.9
Developed Small/Mid Cap Equities	8.4	3.3	-5.1
US	4.7	2.4	-2.3
Non-US	3.7	0.9	-2.9
Emerging All Cap Equities	9.8	11.3	1.5
Asia	8.2	10.2	2.0
China	3.3	5.4	2.1
Asia (ex China)	4.9	4.8	-0.2
EMEA	0.9	0.5	-0.4
LatAm	0.7	0.7	-0.0
Brazil	0.4	0.4	-0.0
LatAm ex Brazil	0.3	0.3	-0.0
Thematic Equities	0.0	8.5	8.5
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	3.0	3.0
Cyber Security	0.0	1.5	1.5
Fintech	0.0	0.0	0.0
Natural Resources	0.0	4.0	4.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	4.0	4.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	4.0	4.0
Gold	0.0	4.0	4.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
Hedge Funds	14.0	14.0	0.0
Private Equity	10.0	10.0	0.0
Real Estate	5.0	5.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

# Global USD with Hedge Funds and 15% Illiquids (PE & RE): Risk Level 5 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have an underweight position of -4.0% while gold has an overweight position of +4.0%. Global fixed income and cash both have neutral position.

Within equities, developed large cap equities have an underweight position of -8.9% and developed small/mid cap equities have an underweight position of -5.1%. Emerging market equities have an overweight of +1.5%. Thematic equities have an overweight of +8.5%.

Within fixed income, developed government debt, developed corporate investment grade, developed high yield and emerging market debt are all at neutral position.

Hedge Fund allocation in the tactical portfolio is 14%. Private Equity and Real Estate allocations are 10% and 5%, respectively. All these three asset classes positionings are neutral.

# Global USD without Hedge Funds: Risk Level 1

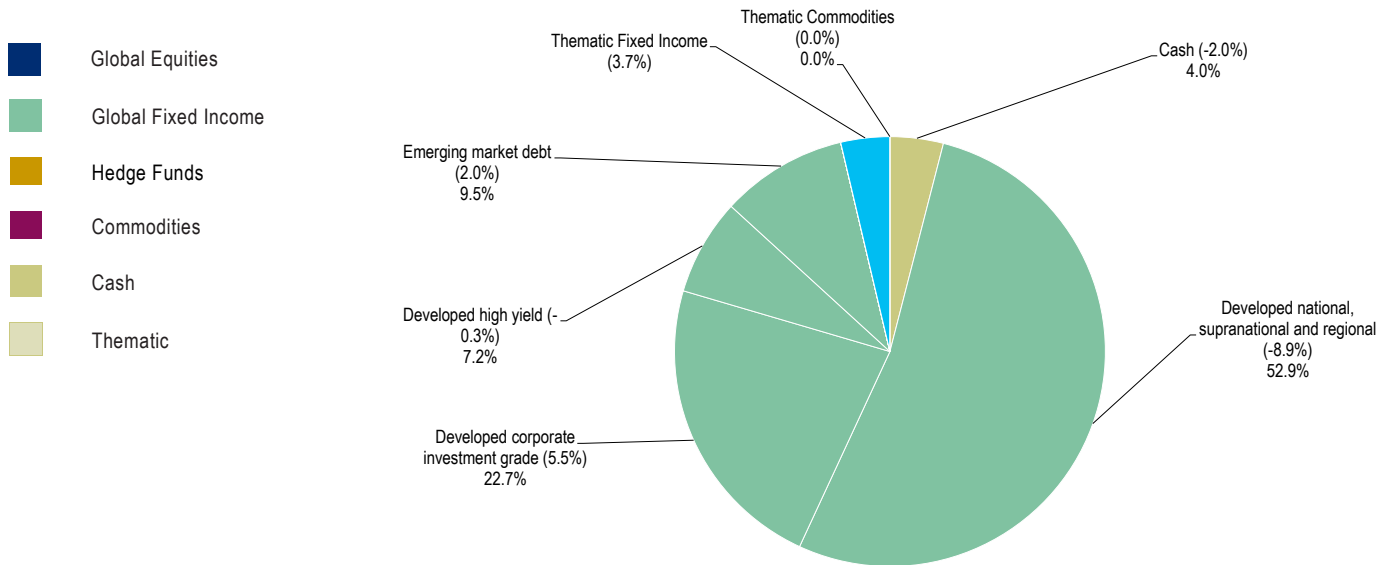
Risk Level 1 is designed for investors who have a preference for capital preservation and relative safety over the potential for a return on investment. These investors prefer to hold cash, time deposits and/or lower risk fixed income instruments.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	6.0	4.0	-2.0
Fixed Income	94.0	96.0	2.0
Developed Investment Grade	79.0	75.6	-3.4
US	45.3	52.4	7.1
Government	19.5	20.1	0.6
Inflation-Linked	2.8	2.6	-0.2
Short	5.2	5.0	-0.2
Intermediate	8.1	7.1	-1.0
Long	3.5	5.5	2.0
Securitized	14.4	15.9	1.5
Credit	11.4	16.4	5.0
Short	1.6	2.6	1.0
Intermediate	6.0	10.0	4.0
Long	3.9	3.9	0.0
Europe	25.8	18.8	-7.0
Government	20.1	12.6	-7.5
Credit	5.8	6.3	0.5
Australia	0.5	0.5	0.0
Government	0.5	0.5	0.0
Japan	7.4	3.9	-3.5
Government	7.4	3.9	-3.5
Developed High Yield	7.5	7.2	-0.3
US	5.6	4.2	-1.4
Europe	1.9	3.0	1.1
Emerging Market Debt	7.5	9.5	2.0
Asia	1.3	2.6	1.3
Local currency	0.6	1.1	0.5
Foreign currency	0.6	1.4	0.8
EMEA	3.9	3.9	0.0
Local currency	2.0	2.0	0.0
Foreign currency	2.0	2.0	0.0
LatAm	2.3	3.0	0.7
Local currency	1.2	1.2	0.0
Foreign currency	1.2	1.9	0.7
Thematic Fixed Income	0.0	3.7	3.7
US Bank Loans	0.0	1.7	1.7
Preferreds	0.0	2.0	2.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	0.0	0.0	0.0
Developed Equities	0.0	0.0	0.0
Developed Large Cap Equities	0.0	0.0	0.0
US	0.0	0.0	0.0
Canada	0.0	0.0	0.0
UK	0.0	0.0	0.0
Switzerland	0.0	0.0	0.0
Europe ex UK ex Switzerland	0.0	0.0	0.0
Asia ex Japan	0.0	0.0	0.0
Japan	0.0	0.0	0.0
Developed Small/Mid Cap Equities	0.0	0.0	0.0
US	0.0	0.0	0.0
Non-US	0.0	0.0	0.0
Emerging All Cap Equities	0.0	0.0	0.0
Asia	0.0	0.0	0.0
China	0.0	0.0	0.0
Asia (ex China)	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
LatAm	0.0	0.0	0.0
Brazil	0.0	0.0	0.0
LatAm ex Brazil	0.0	0.0	0.0
Thematic Equities	0.0	0.0	0.0
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	0.0	0.0
Cyber Security	0.0	0.0	0.0
Fintech	0.0	0.0	0.0
Natural Resources	0.0	0.0	0.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	0.0	0.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	0.0	0.0
Gold	0.0	0.0	0.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

# Global USD without Hedge Funds: Risk Level 1 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have an overall neutral position, global fixed income has an overweight of +2.0%, cash has an underweight of -2.0%.

Within equities, developed large cap equities, developed small/mid cap equities and emerging market equities are all at neutral positions.

Within fixed income, developed investment grade debt has an underweight position of -3.4%; developed high yield has an underweight position of -0.3% and emerging market debt has an overweight position of +2.0%. Thematic fixed income has an overweight position of +3.7%.

## Global USD without Hedge Funds: Risk Level 2

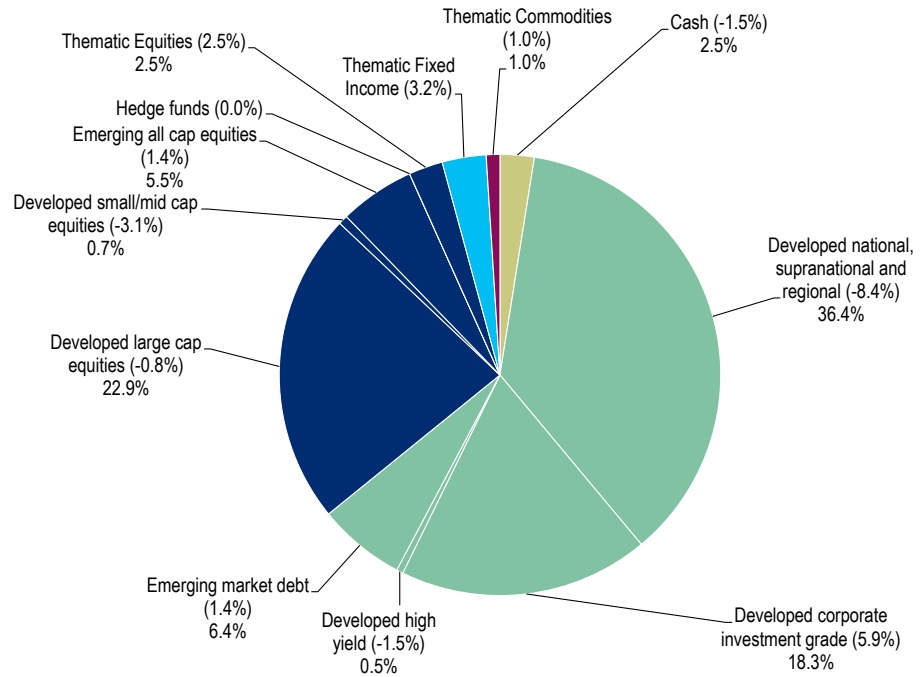
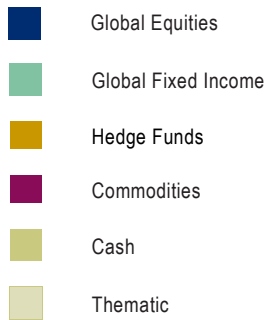
Risk Level 2 is designed for investors who emphasize capital preservation over return on investment, but who are willing to subject some portion of their principal to increased risk in order to generate a potentially greater rate of return on investment.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	4.0	2.5	-1.5
Fixed Income	64.3	64.9	0.5
Developed Investment Grade	57.4	54.8	-2.6
US	32.9	40.7	7.8
Government	14.2	15.0	0.9
Inflation-Linked	2.0	2.2	0.2
Short	3.8	2.3	-1.5
Intermediate	5.9	6.0	0.2
Long	2.5	4.5	2.0
Securitized	10.4	11.5	1.1
Credit	8.3	14.1	5.9
Short	1.1	1.3	0.2
Intermediate	4.3	10.0	5.7
Long	2.8	2.8	0.0
Europe	18.8	11.8	-7.0
Government	14.6	7.6	-7.0
Credit	4.2	4.2	0.0
Australia	0.3	0.3	0.0
Government	0.3	0.3	0.0
Japan	5.4	2.0	-3.4
Government	5.4	2.0	-3.4
Developed High Yield	2.0	0.5	-1.5
US	1.5	0.5	-1.0
Europe	0.5	0.0	-0.5
Emerging Market Debt	5.0	6.4	1.4
Asia	0.8	1.9	1.0
Local currency	0.4	1.0	0.5
Foreign currency	0.4	0.9	0.5
EMEA	2.6	2.6	-0.0
Local currency	1.3	1.3	-0.0
Foreign currency	1.3	1.3	-0.0
LatAm	1.5	1.9	0.4
Local currency	0.8	0.8	-0.0
Foreign currency	0.8	1.2	0.4
Thematic Fixed Income	0.0	3.2	3.2
US Bank Loans	0.0	1.2	1.2
Preferreds	0.0	2.0	2.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	31.7	31.6	-0.0
Developed Equities	27.5	23.6	-3.9
Developed Large Cap Equities	23.7	22.9	-0.8
US	16.5	17.0	0.5
Canada	0.8	0.8	0.0
UK	1.0	1.0	0.0
Switzerland	0.7	0.6	-0.0
Europe ex UK ex Switzerland	2.3	1.6	-0.6
Asia ex Japan	0.8	0.8	0.0
Japan	1.6	1.1	-0.5
Developed Small/Mid Cap Equities	3.8	0.7	-3.1
US	2.1	0.6	-1.5
Non-US	1.7	0.1	-1.5
Emerging All Cap Equities	4.2	5.5	1.4
Asia	3.5	5.1	1.6
China	1.4	3.0	1.6
Asia (ex China)	2.1	2.1	0.0
EMEA	0.4	0.1	-0.2
LatAm	0.3	0.3	0.0
Brazil	0.2	0.2	0.0
LatAm ex Brazil	0.1	0.1	0.0
Thematic Equities	0.0	2.5	2.5
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	1.5	1.5
Cyber Security	0.0	0.0	0.0
Fintech	0.0	0.0	0.0
Natural Resources	0.0	1.0	1.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	1.0	1.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	1.0	1.0
Gold	0.0	1.0	1.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

# Global USD without Hedge Funds: Risk Level 2 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have a neutral position, global fixed income has an overweight of +0.5%, cash has an underweight of -1.5% with gold overweight at +1.0%.

Within equities, developed large cap equities have an underweight position of -0.8% while developed small/mid cap equities have an underweight of -3.1%. Emerging market equities have an overweight of +1.4%. Thematic equities have an overweight of +2.5%.

Within fixed income, developed investment grade has an underweight position of -2.6%; developed high yield has an underweight position of -1.5% and emerging market debt has an overweight position of +1.4%. Thematic fixed income has an overweight position of +3.2%.

## Global USD without Hedge Funds: Risk Level 3

Risk Level 3 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. Risk Level 3 may be appropriate for investors willing to subject their portfolio to additional risk for potential growth in addition to a level of income reflective of his/her stated risk tolerance.

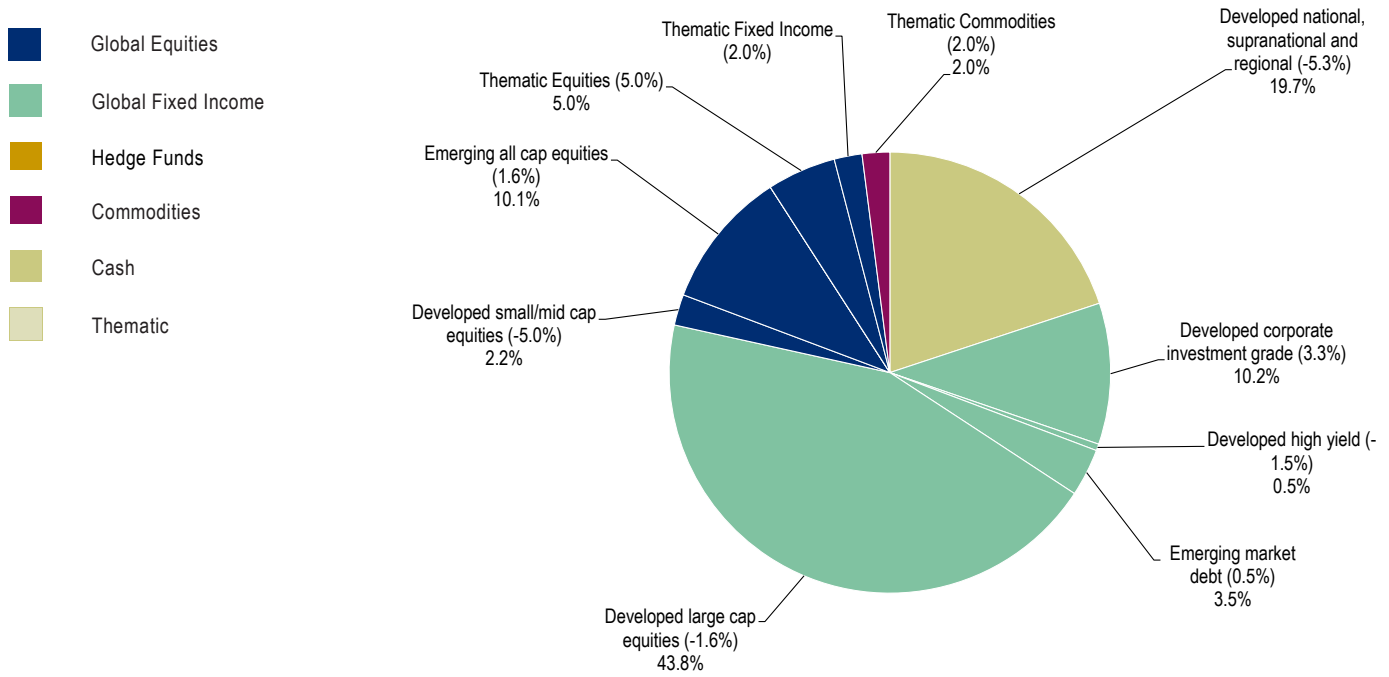
Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	2.0	1.0	-1.0
Fixed Income	36.9	35.9	-1.0
Developed Investment Grade	32.0	30.0	-2.0
US	18.3	26.0	7.7
Government	7.9	12.4	4.5
Inflation-Linked	1.1	2.1	1.0
Short	2.1	0.2	-1.9
Intermediate	3.3	6.7	3.4
Long	1.4	3.4	2.0
Securitized	5.8	5.5	-0.3
Credit	4.6	8.1	3.5
Short	0.6	0.6	0.0
Intermediate	2.4	5.9	3.5
Long	1.6	1.6	0.0
Europe	10.5	3.8	-6.7
Government	8.1	1.6	-6.5
Credit	2.3	2.1	-0.2
Australia	0.2	0.2	0.0
Government	0.2	0.2	0.0
Japan	3.0	0.0	-3.0
Government	3.0	0.0	-3.0
Developed High Yield	2.0	0.5	-1.5
US	1.5	0.5	-1.0
Europe	0.5	0.0	-0.5
Emerging Market Debt	3.0	3.5	0.5
Asia	0.5	1.0	0.5
Local currency	0.3	0.6	0.3
Foreign currency	0.3	0.5	0.2
EMEA	1.5	1.5	-0.0
Local currency	0.8	0.8	-0.0
Foreign currency	0.8	0.8	-0.0
LatAm	0.9	0.9	-0.0
Local currency	0.5	0.5	-0.0
Foreign currency	0.5	0.5	-0.0
Thematic Fixed Income	0.0	2.0	2.0
US Bank Loans	0.0	0.0	0.0
Preferreds	0.0	2.0	2.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	61.1	61.1	0.0
Developed Equities	52.7	46.0	-6.6
Developed Large Cap Equities	45.4	43.8	-1.6
US	31.6	32.1	0.5
Canada	1.6	1.6	-0.0
UK	1.9	1.9	0.0
Switzerland	1.3	1.2	-0.1
Europe ex UK ex Switzerland	4.4	3.4	-1.0
Asia ex Japan	1.6	1.6	0.0
Japan	3.1	2.1	-1.0
Developed Small/Mid Cap Equities	7.2	2.2	-5.0
US	4.0	1.5	-2.5
Non-US	3.2	0.7	-2.5
Emerging All Cap Equities	8.4	10.1	1.6
Asia	7.1	9.1	2.0
China	2.8	4.8	2.0
Asia (ex China)	4.2	4.2	-0.0
EMEA	0.8	0.4	-0.4
LatAm	0.6	0.6	0.0
Brazil	0.4	0.4	0.0
LatAm ex Brazil	0.2	0.2	0.0
Thematic Equities	0.0	5.0	5.0
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	2.0	2.0
Cyber Security	0.0	1.0	1.0
Fintech	0.0	0.0	0.0
Natural Resources	0.0	2.0	2.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	2.0	2.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	2.0	2.0
Gold	0.0	2.0	2.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.



# Global USD without Hedge Funds: Risk Level 3 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have a neutral position, global fixed income has an underweight of -1.0%, cash has an underweight of -1.0% with gold overweight at +2.0%.

Within equities, developed large cap equities have an underweight position of -1.6% while developed small/mid cap equities have an underweight position of -5.0%. Emerging market equities have an overweight of +1.6%. Thematic equities have an overweight of +5.0%.

Within fixed income, developed investment grade debt has an underweight position of -2.0%; developed high yield has an underweight position of -1.5%; emerging market debt has an overweight position of +0.5%. Thematic fixed income has an overweight of +2.0%.

## Global USD without Hedge Funds: Risk Level 4

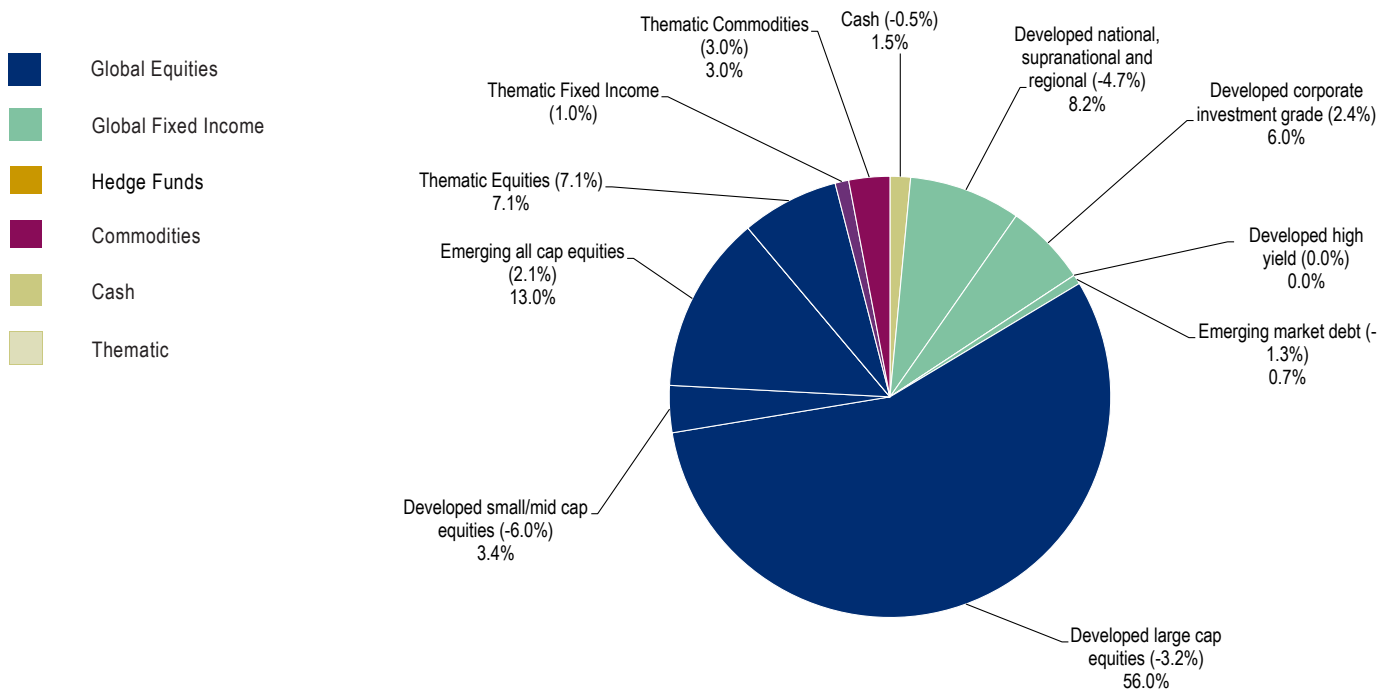
Risk Level 4 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. They are willing to subject a large portion of their portfolio to greater risk and market value fluctuations in anticipation of a potentially greater return on investment. Investors may have a preference for investments or trading strategies that may assume higher-than-normal market risks and/or potentially less liquidity with the goal (but not guarantee) of commensurate gains.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	2.0	1.5	-0.5
Fixed Income	18.4	15.9	-2.5
Developed Investment Grade	16.4	14.2	-2.2
US	9.4	13.8	4.4
Government	4.1	7.6	3.6
Inflation-Linked	0.6	0.5	-0.0
Short	1.1	0.1	-1.0
Intermediate	1.7	4.3	2.6
Long	0.7	2.7	2.0
Securitized	3.0	0.4	-2.6
Credit	2.4	5.8	3.4
Short	0.3	0.0	-0.3
Intermediate	1.2	5.5	4.2
Long	0.8	0.3	-0.5
Europe	5.4	0.4	-5.0
Government	4.2	0.2	-4.0
Credit	1.2	0.2	-1.0
Australia	0.1	0.0	-0.1
Government	0.1	0.0	-0.1
Japan	1.5	0.0	-1.5
Government	1.5	0.0	-1.5
Developed High Yield	0.0	0.0	0.0
US	0.0	0.0	0.0
Europe	0.0	0.0	0.0
Emerging Market Debt	2.0	0.7	-1.3
Asia	0.3	0.4	0.1
Local currency	0.2	0.2	0.1
Foreign currency	0.2	0.2	-0.0
EMEA	1.0	0.0	-1.0
Local currency	0.5	0.0	-0.5
Foreign currency	0.5	0.0	-0.5
LatAm	0.6	0.3	-0.3
Local currency	0.3	0.0	-0.3
Foreign currency	0.3	0.3	-0.1
Thematic Fixed Income	0.0	1.0	1.0
US Bank Loans	0.0	0.0	0.0
Preferreds	0.0	1.0	1.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	79.6	79.6	0.0
Developed Equities	68.6	59.4	-9.2
Developed Large Cap Equities	59.2	56.0	-3.2
US	41.2	42.3	1.1
Canada	2.1	2.1	-0.0
UK	2.5	2.2	-0.3
Switzerland	1.6	1.0	-0.6
Europe ex UK ex Switzerland	5.7	3.7	-2.0
Asia ex Japan	2.1	2.1	0.0
Japan	4.0	2.6	-1.4
Developed Small/Mid Cap Equities	9.4	3.4	-6.0
US	5.3	2.5	-2.8
Non-US	4.2	0.9	-3.3
Emerging All Cap Equities	11.0	13.0	2.1
Asia	9.2	11.8	2.6
China	3.7	6.3	2.7
Asia (ex China)	5.5	5.4	-0.1
EMEA	1.0	0.5	-0.5
LatAm	0.8	0.8	0.0
Brazil	0.5	0.5	0.0
LatAm ex Brazil	0.3	0.3	0.0
Thematic Equities	0.0	7.1	7.1
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	2.8	2.8
Cyber Security	0.0	1.4	1.4
Fintech	0.0	0.0	0.0
Natural Resources	0.0	3.0	3.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	3.0	3.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	3.0	3.0
Gold	0.0	3.0	3.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>-0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

## Global USD without Hedge Funds: Risk Level 4 - Tactical Allocations



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have a neutral position, global fixed income has an underweight of -2.5%, cash has an underweight of -0.5% with gold overweight at +3.0%.

Within equities, developed large cap equities have an underweight position of -3.2% while developed small/mid cap equities have an underweight position of -6.0%. Emerging market equities have an overweight of +2.1%. Thematic equities have an overweight position of +7.1%.

Within fixed income, developed investment grade debt has an underweight position of -2.2%; developed high yield has a neutral position and emerging market debt has an underweight position of -1.3%. Thematic fixed income has an overweight position of +1.0%.

# Global USD without Hedge Funds: Risk Level 5

Risk Level 5 is designed for investors who emphasize return on investment. They are willing to subject their entire portfolio to greater risk and market value fluctuations in anticipation of a potentially greater return on investments. Investors may have a preference for investments or trading strategies that may assume higher than-normal market risks and/or potentially less liquidity with the goal (but not guarantee) of commensurate gains. Clients may engage in tactical or opportunistic trading, which may involve higher volatility and variability of returns.

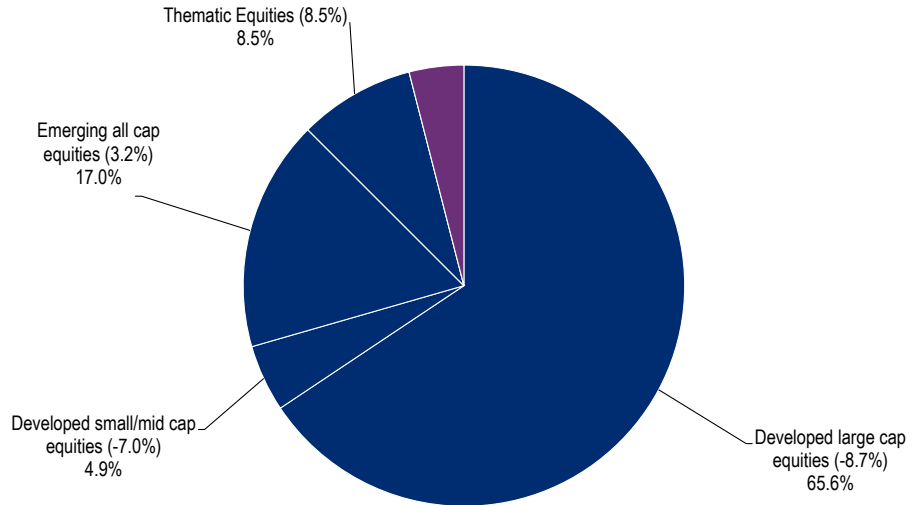
Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	0.0	0.0	0.0
Fixed income	0.0	0.0	0.0
Developed Investment Grade	0.0	0.0	0.0
US	0.0	0.0	0.0
Government	0.0	0.0	0.0
Inflation-Linked	0.0	0.0	0.0
Short	0.0	0.0	0.0
Intermediate	0.0	0.0	0.0
Long	0.0	0.0	0.0
Securitized	0.0	0.0	0.0
Credit	0.0	0.0	0.0
Short	0.0	0.0	0.0
Intermediate	0.0	0.0	0.0
Long	0.0	0.0	0.0
Europe	0.0	0.0	0.0
Government	0.0	0.0	0.0
Credit	0.0	0.0	0.0
Australia	0.0	0.0	0.0
Government	0.0	0.0	0.0
Japan	0.0	0.0	0.0
Government	0.0	0.0	0.0
Developed High Yield	0.0	0.0	0.0
US	0.0	0.0	0.0
Europe	0.0	0.0	0.0
Emerging Market Debt	0.0	0.0	0.0
Asia	0.0	0.0	0.0
Local currency	0.0	0.0	0.0
Foreign currency	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
Local currency	0.0	0.0	0.0
Foreign currency	0.0	0.0	0.0
LatAm	0.0	0.0	0.0
Local currency	0.0	0.0	0.0
Foreign currency	0.0	0.0	0.0
Thematic Fixed Income	0.0	0.0	0.0
US Bank Loans	0.0	0.0	0.0
Preferreds	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	100.0	96.0	-4.0
Developed Equities	86.2	70.5	-15.7
Developed Large Cap Equities	74.3	65.6	-8.7
US	51.7	54.7	3.0
Canada	2.6	1.1	-1.5
UK	3.1	1.2	-1.9
Switzerland	2.1	0.5	-1.6
Europe ex UK ex Switzerland	7.2	3.4	-3.8
Asia ex Japan	2.6	2.2	-0.4
Japan	5.0	2.5	-2.5
Developed Small/Mid Cap Equities	11.9	4.9	-7.0
US	6.6	3.6	-3.0
Non-US	5.2	1.3	-4.0
Emerging All Cap Equities	13.8	17.0	3.2
Asia	11.6	15.2	3.6
China	4.6	8.1	3.5
Asia (ex China)	6.9	7.1	0.2
EMEA	1.3	0.8	-0.5
LatAm	1.0	1.0	0.0
Brazil	0.6	0.6	0.0
LatAm ex Brazil	0.4	0.4	0.0
Thematic Equities	0.0	8.5	8.5
Global Equity REITs	0.0	0.0	0.0
US Mortgage REITs	0.0	0.0	0.0
Global Healthcare	0.0	0.0	0.0
Global Pharma	0.0	3.0	3.0
Cyber Security	0.0	1.5	1.5
Fintech	0.0	0.0	0.0
Natural Resources	0.0	4.0	4.0
Oil Services	0.0	0.0	0.0
Commodities	0.0	4.0	4.0
Composite Commodities	0.0	0.0	0.0
Thematic Commodities	0.0	4.0	4.0
Gold	0.0	4.0	4.0
Thematic 2	0.0	0.0	0.0
Thematic 3	0.0	0.0	0.0
Thematic 4	0.0	0.0	0.0
Thematic 5	0.0	0.0	0.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>

Active = the difference between tactical and strategic allocations. Minor differences may result due to rounding.

# Global USD without Hedge Funds: Risk Level 5 - Tactical Allocations

- Global Equities
- Global Fixed Income
- Hedge Funds
- Commodities
- Cash
- Thematic



Figures in brackets are active allocations. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

## Core Positions

Global equities have an underweight position of -4.0% while gold is overweight at +4.0%. Global fixed income and cash are both at neutral position.

Within equities, developed large cap equities have an underweight position of -8.7% and developed small/mid cap equities have an underweight position of -7.0%. Emerging market equities have an overweight of +3.2%. Thematic equities have an overweight position of +8.5%.

Within fixed income, developed government debt, developed corporate investment grade, developed high yield and emerging market debt are all at neutral position.

# Asset Allocation Definitions

ASSET CLASSES	Benchmarked against
<b>Global equities</b>	MSCI All Country World Index, which represents 48 developed and emerging equity markets. Index components are weighted by market capitalization.
<b>Global bonds</b>	Bloomberg Barclays Capital Multiverse (Hedged) Index, which contains the government -related portion of the Multiverse Index, and accounts for approximately 14% of the larger index.
<b>Hedge funds</b>	HFRX Global Hedge Fund Index, which is designed to be representative of the overall composition of the hedge fund universe. It comprises all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage and relative value arbitrage. The strategies are asset-weighted based on the distribution of assets in the hedge fund industry.
<b>Commodities</b>	Dow Jones-UBS Commodity Index, which is composed of futures contracts on physical commodities traded on US exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME). The major commodity sectors are represented including energy, petroleum, precious metals, industrial metals, grains, livestock, softs, agriculture and ex-energy. The Thomson Reuters / Core Commodity Index is designed to provide timely and accurate representation of a long-only, broadly diversified investment in commodities through a transparent and disciplined calculation methodology.
<b>Cash</b>	Three-month LIBOR, which is the interest rates that banks charge each other in the international inter-bank market for three-month loans (usually denominated in Eurodollars).
<b>Equities</b>	
<b>Developed market large cap</b>	MSCI World Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the equity market performance of the large cap stocks in 23 developed markets. Large cap is defined as stocks representing roughly 70% of each market's capitalization.
<b>All Country Ex US</b>	MSCI All Country ex US, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the equity market performance of the large cap stocks in all countries excluding the US.
<b>US</b>	Standard & Poor's 500 Index, which is a capitalization-weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market.
<b>Europe ex UK</b>	MSCI Europe ex UK Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in each of Europe's developed markets, except for the UK
<b>UK</b>	MSCI UK Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in the UK
<b>Japan</b>	MSCI Japan Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in Japan.
<b>Asia Pacific ex Japan</b>	MSCI Asia Pacific ex Japan Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the performance of large cap stocks in Australia, Hong Kong, New Zealand and Singapore.
<b>Developed market small and mid-cap (SMID)</b>	MSCI World Small Cap Index, which is a capitalization-weighted index that measures small cap stock performance in 23 developed equity markets.
<b>Emerging market</b>	MSCI Emerging Markets Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure equity market performance of 22 emerging markets.
<b>Bonds</b>	
<b>Developed sovereign</b>	Citi World Government Bond Index (WGBI), which consists of the major global investment grade government bond markets and is composed of sovereign debt, denominated in the domestic currency. To join the WGBI, the market must satisfy size, credit and barriers-to-entry requirements. In order to ensure that the WGBI remains an investment grade benchmark, a minimum credit quality of BBB-/Baa3 by either S&P or Moody's is imposed. The index is rebalanced monthly.
<b>Emerging sovereign</b>	Citi Emerging Market Sovereign Bond Index (ESBI), which includes Brady bonds and US dollar -denominated emerging market sovereign debt issued in the global, Yankee and Eurodollar markets, excluding loans. It is composed of debt in Africa, Asia, Europe and Latin America. We classify an emerging market as a sovereign with a maximum foreign debt rating of BBB+/Baa1 by S&P or Moody's. Defaulted issues are excluded.
<b>Supranationals</b>	Citi World Broad Investment Grade Index (WBIG)—Government Related, which is a subsector of the WBIG. The index includes fixed rate investment grade agency, supranational and regional government debt, denominated in the domestic currency. The index is rebalanced monthly.
<b>Corporate investment grade</b>	Citi World Broad Investment Grade Index (WBIG)—Corporate, which is a subsector of the WBIG. The index includes fixed rate global investment grade corporate debt within the finance, industrial and utility sectors, denominated in the domestic currency. The index is rebalanced monthly.
<b>Corporate high yield</b>	Bloomberg Barclays Global High Yield Corporate Index. Provides a broad-based measure of the global high yield fixed income markets. It is also a component of the Multiverse Index and the Global Aggregate Index.
<b>Securitized</b>	Citi World Broad Investment Grade Index (WBIG)—Securitized, which is a subsector of the WBIG. The index includes global investment grade collateralized debt denominated in the domestic currency, including mortgage -backed securities, covered bonds (Pfandbriefe) and asset-backed securities. The index is rebalanced monthly. Moody's Baa Corporate Bond Index is an investment bond index that tracks the performance of all bonds given a Baa rating by Moody's Investors Service.

BAML US Corporate index (Bank of America Merrill Lynch) tracks the performance of US dollar denominated investment grade rated corporate debt publicly issued in the US domestic market.

## Other miscellaneous definitions

---

**Asset Backed Securities (ABS)** A security whose income payments and hence value are derived from and collateralized (or "backed") by a specified pool of underlying assets such as consumer credit card debt or auto loans.

**Commercial Mortgage Backed Securities (CMBS)** Commercial mortgage-backed securities (CMBS) are a type of mortgage-backed security that is secured by mortgages on commercial properties, instead of residential real estate.

**High Yield Corporate Bonds (HY)** High yield corporate bonds are bonds with a credit rating less than BBB- (S&P) or Baa3 (Moody's), and are debt securities issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations.

**Investment Grade Corporate Bonds (IG)** Investment grade corporate bonds are bonds with a credit rating equal to or above BBB- (S&P) or Baa3 (Moody's), and are debt securities issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations.

**COVID-Cyclicals** Financials, Industrials, Energy, Materials, Real Estate, Consumer Discretionary ex-Amazon.

**COVID-Defensives** IT, Health Care, Communication Services, Consumer Staples, Utilities, Amazon.

# Disclosures

**In any instance where distribution of this communication (“Communication”) is subject to the rules of the US Commodity Futures Trading Commission (“CFTC”), this communication constitutes an invitation to consider entering into a derivatives transaction under US CFTC Regulations §§ 1.71 and 23.605, where applicable, but is not a binding offer to buy/sell any financial instrument.**

This Communication is prepared by Citi Private Bank (“CPB”), a business of Citigroup, Inc. (“Citigroup”), which provides its clients access to a broad array of products and services available through Citigroup, its bank and non-bank affiliates worldwide (collectively, “Citi”). Not all products and services are provided by all affiliates, or are available at all locations.

CPB personnel are not research analysts, and the information in this Communication is not intended to constitute “research”, as that term is defined by applicable regulations. Unless otherwise indicated, any reference to a research report or research recommendation is not intended to represent the whole report and is not in itself considered a recommendation or research report.

**This Communication is provided for information and discussion purposes only, at the recipient’s request. The recipient should notify CPB immediately should it at any time wish to cease being provided with such information.** Unless otherwise indicated, (i) it does not constitute an offer or recommendation to purchase or sell any security, financial instrument or other product or service, or to attract any funding or deposits, and (ii) it does not constitute a solicitation if it is not subject to the rules of the CFTC (but see discussion above regarding communication subject to CFTC rules) and (iii) it is not intended as an official confirmation of any transaction.

Unless otherwise expressly indicated, this Communication does not take into account the investment objectives, risk profile or financial situation of any particular person and as such, investments mentioned in this document may not be suitable for all investors. Citi is not acting as an investment or other advisor, fiduciary or agent. The information contained herein is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Recipients of this Communication should obtain advice based on their own individual circumstances from their own tax, financial, legal and other advisors about the risks and merits of any transaction before making an investment decision, and only make such decisions on the basis of their own objectives, experience, risk profile and resources.

The information contained in this Communication is based on generally available information and, although obtained from sources believed by Citi to be reliable, its accuracy and completeness cannot be assured, and such information may be incomplete or condensed. Any assumptions or information contained in this Communication constitute a judgment only as of the date of this document or on any specified dates and is subject to change without notice. Insofar as this Communication may contain historical and forward looking information, past performance is neither a guarantee nor an indication of future results, and future results may not meet expectations due to a variety of economic, market and other factors. Further, any projections of potential risk or return are illustrative and should not be taken as limitations of the maximum possible loss or gain. Any prices, values or estimates provided in this Communication (other than those that are identified as being historical) are indicative only, may change without notice and do not represent firm quotes as to either price or size, nor reflect the value Citi may assign a security in its inventory. Forward looking information does not indicate a level at which Citi is prepared to do a trade and may not account for all relevant assumptions and future conditions. Actual conditions may vary substantially from estimates which could have a negative impact on the value of an instrument.

Views, opinions and estimates expressed herein may differ from the opinions expressed by other Citi businesses or affiliates, and are not intended to be a forecast of future events, a guarantee of future results, or investment advice, and are subject to change without notice based on market and other conditions. Citi is under no duty to update this document and accepts no liability for any loss (whether direct, indirect or consequential) that may arise from any use of the information contained in or derived from this Communication.

Investments in financial instruments or other products carry significant risk, including the possible loss of the principal amount invested. Financial instruments or other products denominated in a foreign currency are subject to exchange rate fluctuations, which may have an adverse effect on the price or value of an investment in such products. This Communication does not purport to identify all risks or material considerations which may be associated with entering into any transaction.

Structured products can be highly illiquid and are not suitable for all investors. Additional information can be found in the disclosure documents of the issuer for each respective structured product described herein. Investing in structured products is intended only for experienced and sophisticated investors who are willing and able to bear the high economic risks of such an investment. Investors should carefully review and consider potential risks before investing.

OTC derivative transactions involve risk and are not suitable for all investors. Investment products are not insured, carry no bank or government guarantee and may lose value. Before entering into these transactions, you should: (i) ensure that you have obtained and considered relevant information from independent reliable sources concerning the financial, economic and political conditions of the relevant markets; (ii) determine that you have the necessary knowledge, sophistication and experience in financial, business and investment matters to be able to evaluate the risks involved, and that you are financially able to bear such risks; and (iii) determine, having considered the foregoing points, that capital markets transactions are suitable and appropriate for your financial, tax, business and investment objectives.

This material may mention options regulated by the US Securities and Exchange Commission. Before buying or selling options you should obtain and review the current version of the Options Clearing Corporation booklet, Characteristics and Risks of Standardized Options. A copy of the booklet can be obtained upon request from Citigroup Global Markets Inc., 390 Greenwich Street, 3rd Floor, New York, NY 10013 or by clicking the following links,

<http://www.theocc.com/components/docs/riskstoc.pdf> and

[http://www.theocc.com/components/docs/about/publications/november\\_2012\\_supplement.pdf](http://www.theocc.com/components/docs/about/publications/november_2012_supplement.pdf) and

[https://www.theocc.com/components/docs/about/publications/october\\_2018\\_supplement.pdf](https://www.theocc.com/components/docs/about/publications/october_2018_supplement.pdf)

If you buy options, the maximum loss is the premium. If you sell put options, the risk is the entire notional below the strike. If you sell call options, the risk is unlimited. The actual profit or loss from any trade will depend on the price at which the trades are executed. The prices used herein are historical and may not be available when you order is entered. Commissions and other transaction costs are not considered in these examples. Option trades in general and these trades in particular may not be appropriate for every investor. Unless noted otherwise, the source of all graphs and tables in this report is Citi. Because of the importance of tax considerations to all option transactions, the investor considering options should consult with his/her tax advisor as to how their tax situation is affected by the outcome of contemplated options transactions.

None of the financial instruments or other products mentioned in this Communication (unless expressly stated otherwise) is (i) insured by the Federal Deposit Insurance Corporation or any other governmental authority, or (ii) deposits or other obligations of, or guaranteed by, Citi or any other insured depository institution.

Citi often acts as an issuer of financial instruments and other products, acts as a market maker and trades as principal in many different financial instruments and other products, and can be expected to perform or seek to perform investment banking and other services for the issuer of such financial instruments or other products. The author of this Communication may have discussed the information contained therein with others within or outside Citi, and the author and/or such other Citi personnel may have already acted on the basis of this information (including by trading for Citi's



proprietary accounts or communicating the information contained herein to other customers of Citi). Citi, Citi's personnel (including those with whom the author may have consulted in the preparation of this communication), and other customers of Citi may be long or short the financial instruments or other products referred to in this Communication, may have acquired such positions at prices and market conditions that are no longer available, and may have interests different from or adverse to your interests.

IRS Circular 230 Disclosure: Citi and its employees are not in the business of providing, and do not provide, tax or legal advice to any taxpayer outside Citi. Any statement in this Communication regarding tax matters is not intended or written to be used, and cannot be used or relied upon, by any taxpayer for the purpose of avoiding tax penalties. Any such taxpayer should seek advice based on the taxpayer's particular circumstances from an independent tax advisor.

Neither Citi nor any of its affiliates can accept responsibility for the tax treatment of any investment product, whether or not the investment is purchased by a trust or company administered by an affiliate of Citi. Citi assumes that, before making any commitment to invest, the investor and (where applicable, its beneficial owners) have taken whatever tax, legal or other advice the investor/beneficial owners consider necessary and have arranged to account for any tax lawfully due on the income or gains arising from any investment product provided by Citi.

This Communication is for the sole and exclusive use of the intended recipients, and may contain information proprietary to Citi which may not be reproduced or circulated in whole or in part without Citi's prior consent. The manner of circulation and distribution may be restricted by law or regulation in certain countries. Persons who come into possession of this document are required to inform themselves of, and to observe such restrictions. Citi accepts no liability whatsoever for the actions of third parties in this respect. Any unauthorized use, duplication, or disclosure of this document is prohibited by law and may result in prosecution.

Other businesses within Citigroup Inc. and affiliates of Citigroup Inc. may give advice, make recommendations, and take action in the interest of their clients, or for their own accounts, that may differ from the views expressed in this document. All expressions of opinion are current as of the date of this document and are subject to change without notice. Citigroup Inc. is not obligated to provide updates or changes to the information contained in this document.

The expressions of opinion are not intended to be a forecast of future events or a guarantee of future results. Past performance is not a guarantee of future results. Real results may vary.

Although information in this document has been obtained from sources believed to be reliable, Citigroup Inc. and its affiliates do not guarantee its accuracy or completeness and accept no liability for any direct or consequential losses arising from its use. Throughout this publication where charts indicate that a third party (parties) is the source, please note that the attributed may refer to the raw data received from such parties. No part of this document may be copied, photocopied or duplicated in any form or by any means, or distributed to any person that is not an employee, officer, director, or authorized agent of the recipient without Citigroup Inc.'s prior written consent.

Citigroup Inc. may act as principal for its own account or as agent for another person in connection with transactions placed by Citigroup Inc. for its clients involving securities that are the subject of this document or future editions of the Quadrant.

Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk and prepayment risk. In general, as prevailing interest rates rise, fixed income securities prices will fall. Bonds face credit risk if a decline in an issuer's credit rating, or creditworthiness, causes a bond's price to decline. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. Finally, bonds can be subject to prepayment risk. When interest rates fall, an issuer may choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made.

**Bond rating equivalence**

Alpha and/or numeric symbols used to give indications of relative credit quality. In the municipal market, these designations are published by the rating services. Internal ratings are also used by other market participants to indicate credit quality.

Bond credit quality ratings	Rating agencies		
	Moody's <sup>1</sup>	Standard and Poor's <sup>2</sup>	Fitch Ratings <sup>2</sup>
<b>Credit risk</b>			
<b>Investment Grade</b>			
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (Strong)	A	A	A
Medium grade	Baa	BBB	BBB
<b>Not Investment Grade</b>			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	CC	CC
No interest being paid or bankruptcy petition filed	C	D	C
In default	C	D	D

<sup>1</sup> The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3 to show relative standing within the category.

<sup>2</sup> The ratings from AA to CC by Standard and Poor's and Fitch Ratings may be modified by the addition of a plus or a minus to show relative standing within the category.

(MLP's) - Energy Related MLPs May Exhibit High Volatility. While not historically very volatile, in certain market environments Energy Related MLPS may exhibit high volatility.

Changes in Regulatory or Tax Treatment of Energy Related MLPs. If the IRS changes the current tax treatment of the master limited partnerships included in the Basket of Energy Related MLPs thereby subjecting them to higher rates of taxation, or if other regulatory authorities enact regulations which negatively affect the ability of the master limited partnerships to generate income or distribute dividends to holders of common units, the return on the Notes, if any, could be dramatically reduced. Investment in a basket of Energy Related MLPs may expose the investor to concentration risk due to industry, geographical, political, and regulatory concentration.

Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of

a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

Alternative investments referenced in this report are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and advisor risk.

Asset allocation does not assure a profit or protect against a loss in declining financial markets.

The indexes are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance.

Past performance is no guarantee of future results.

International investing entails greater risk, as well as greater potential rewards compared to US investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economics.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Factors affecting commodities generally, index components composed of futures contracts on nickel or copper, which are industrial metals, may be subject to a number of additional factors specific to industrial metals that might cause price volatility. These include changes in the level of industrial activity using industrial metals (including the availability of substitutes such as manmade or synthetic substitutes); disruptions in the supply chain, from mining to storage to smelting or refining; adjustments to inventory; variations in production costs, including storage, labor and energy costs; costs associated with regulatory compliance, including environmental regulations; and changes in industrial, government and consumer demand, both in individual consuming nations and internationally. Index components concentrated in futures contracts on agricultural products, including grains, may be subject to a number of additional factors specific to agricultural products that might cause price volatility. These include weather conditions, including floods, drought and freezing conditions; changes in government policies; planting decisions; and changes in demand for agricultural products, both with end users and as inputs into various industries.

The information contained herein is not intended to be an exhaustive discussion of the strategies or concepts mentioned herein or tax or legal advice. Readers interested in the strategies or concepts should consult their tax, legal, or other advisors, as appropriate.

Diversification does not guarantee a profit or protect against loss. Different asset classes present different risks.

Announced in January 2021, Citi Global Wealth ("CGW") is comprised of the wealth management businesses of Citi Private Bank and Citi's Global Consumer Bank. Through these businesses, CGW delivers Citi's wealth solutions, products and services globally. The unified management and delivery of CGW's wealth strategy represents a further commitment by Citi to become a leading global wealth business. Citi Global Wealth Investments ("CGWI") is comprised of the Investments and Capital Markets capabilities of Citi Private Bank, Citi Personal Wealth Management and International Personal Bank U.S.

Citi Private Bank and Citi Personal Wealth Management are businesses of Citigroup Inc. ("Citigroup"), which provide clients access to a broad array of products and services available through bank and non-bank affiliates of Citigroup. Not all products and services are provided by all affiliates or are available at all locations. In the U.S., investment products and services are provided by Citigroup Global Markets Inc. ("CGMI"), member FINRA and SIPC, and Citi Private Advisory, LLC ("Citi Advisory"), member FINRA and SIPC. CGMI accounts are carried by Pershing LLC, member FINRA, NYSE, SIPC. Citi Advisory acts as distributor of certain alternative investment products to clients of Citi Private Bank. Insurance is offered by Citi Personal Wealth Management through Citigroup Life Agency LLC ("CLA"). In California, CLA does business as Citigroup Life Insurance Agency, LLC (license number 0G56746). CGMI, Citi Advisory, CLA and Citibank, N.A. are affiliated companies under the common control of Citigroup.

Outside the U.S., investment products and services are provided by other Citigroup affiliates. Investment Management services (including portfolio management) are available through CGMI, Citi Advisory, Citibank, N.A. and other affiliated advisory businesses. These Citigroup affiliates, including Citi Advisory, will be compensated for the respective investment management, advisory, administrative, distribution and placement services they may provide.

International Personal Bank U.S. ("IPB U.S."), is a business of Citigroup Inc. ("Citigroup") which provides its clients access to a broad array of products and services available through Citigroup, its bank and non-bank affiliates worldwide (collectively, "Citi"). Through IPB U.S. prospects and clients have access to the Citigold® Private Client International, Citigold® International, International Personal, Citi Global Executive Preferred, and Citi Global Executive Account Packages. Investment products and services are made available through either Citi Personal Investments International ("CPII"), a business of Citigroup Inc., which offers securities through Citigroup Global Markets Inc. ("CGMI"), member FINRA and SIPC, an investment advisor and broker-dealer registered with the Securities and Exchange Commission; or Citi International Financial Services, LLC ("CIFS"), member FINRA and SIPC, and a broker-dealer registered with the Securities and Exchange Commission that offers investment products and services to non-U.S. citizens, residents, or non-U.S. entities. CGMI and CIFS investment accounts are carried by Pershing LLC, member FINRA, NYSE, and SIPC. Insurance is offered by CPII through Citigroup Life Agency LLC ("CLA"). In California, CLA does business as Citigroup Life Insurance Agency, LLC (license number 0G56746). Citibank N.A., CGMI, CIFS, and CLA are affiliated companies under common control of Citigroup Inc.

**Citibank, N.A., Hong Kong / Singapore organised under the laws of U.S.A. with limited liability.** This communication is distributed in Hong Kong by Citi Private Bank operating through Citibank N.A., Hong Kong Branch, which is registered in Hong Kong with the Securities and Futures Commission for Type 1 (dealing in securities), Type 4 (advising on securities), Type 6 (advising on corporate finance) and Type 9 (asset management) regulated activities with CE No: (AAP937) or in Singapore by Citi Private Bank operating through Citibank, N.A., Singapore Branch which is regulated by the Monetary Authority of Singapore. Any questions in connection with the contents in this communication should be directed to registered or licensed representatives of the relevant aforementioned entity. The contents of this communication have not been reviewed by any regulatory authority in Hong Kong or any regulatory authority in Singapore. This communication contains confidential and proprietary information and is intended only for recipient in accordance with accredited investors requirements in Singapore (as defined under the Securities and Futures Act (Chapter 289 of Singapore) (the "Act" )) and professional investors requirements in Hong Kong (as defined under the Hong Kong Securities and Futures Ordinance and its subsidiary legislation). For regulated asset management services, any mandate will be entered into only with Citibank, N.A., Hong Kong Branch and/or Citibank, N.A. Singapore Branch, as applicable. Citibank, N.A., Hong Kong Branch or Citibank, N.A., Singapore Branch may sub-delegate all or part of its mandate to another Citigroup affiliate or other branch of Citibank, N.A. Any references to named portfolio managers are for your information only, and this communication shall not be construed to be an offer to enter into any portfolio management

mandate with any other Citigroup affiliate or other branch of Citibank, N.A. and, at no time will any other Citigroup affiliate or other branch of Citibank, N.A. or any other Citigroup affiliate enter into a mandate relating to the above portfolio with you. To the extent this communication is provided to clients who are booked and/or managed in Hong Kong: No other statement(s) in this communication shall operate to remove, exclude or restrict any of your rights or obligations of Citibank under applicable laws and regulations. Citibank, N.A., Hong Kong Branch does not intend to rely on any provisions herein which are inconsistent with its obligations under the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission, or which mis-describes the actual services to be provided to you.

Citibank, N.A. is incorporated in the United States of America and its principal regulators are the US Office of the Comptroller of Currency and Federal Reserve under US laws, which differ from Australian laws. Citibank, N.A. does not hold an Australian Financial Services Licence under the Corporations Act 2001 as it enjoys the benefit of an exemption under ASIC Class Order CO 03/1101 (remade as ASIC Corporations (Repeal and Transitional) Instrument 2016/396 and extended by ASIC Corporations (Amendment) Instrument 2020/200).

In the United Kingdom, Citibank N.A., London Branch (registered branch number BR001018), Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB, is authorised and regulated by the Office of the Comptroller of the Currency (USA) and authorised by the Prudential Regulation Authority. Subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. The contact number for Citibank N.A., London Branch is +44 (0)20 7508 8000.

Citibank Europe plc (UK Branch), is a branch of Citibank Europe plc, which is authorised by the European Central Bank and regulated by the Central Bank of Ireland and the European Central Bank (reference number is C26553). Citibank Europe plc (UK Branch) is also authorised by the Prudential Regulation Authority and with deemed variation of permission. Citibank Europe plc (UK Branch) is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details of the temporary permissions regime, which allows EEA-based firms to operate in the UK for a limited period while seeking full authorisation, are available on the FCA's website. Citibank Europe plc (UK Branch) is registered as a branch in the register of companies for England and Wales with registered branch number BR017844. Its registered address is Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB. VAT No.: GB 429 6256 29. Citibank Europe plc is registered in Ireland with number 132781, with its registered office at 1 North Wall Quay, Dublin 1. Citibank Europe plc is regulated by the Central Bank of Ireland. Ultimately owned by Citigroup Inc., New York, USA.

Citibank Europe plc, Luxembourg Branch is a branch of Citibank Europe plc with trade and companies register number B 200204. It is authorised in Luxembourg and supervised by the Commission de Surveillance du Secteur Financier. It appears on the Commission de Surveillance du Secteur Financier register with company number B00000395. Its business office is at 31, Z.A. Bourmicht, 8070 Bertrange, Grand Duchy of Luxembourg. Citibank Europe plc is registered in Ireland with company registration number 132781. It is regulated by the Central Bank of Ireland under the reference number C26553 and supervised by the European Central Bank. Its registered office is at 1 North Wall Quay, Dublin 1, Ireland.

In Jersey, this document is communicated by Citibank N.A., Jersey Branch which has its registered address at PO Box 104, 38 Esplanade, St Helier, Jersey JE4 8QB. Citibank N.A., Jersey Branch is regulated by the Jersey Financial Services Commission. Citibank N.A. Jersey Branch is a participant in the Jersey Bank Depositors Compensation Scheme. The Scheme offers protection for eligible deposits of up to £50,000. The maximum total amount of compensation is capped at £100,000,000 in any 5 year period. Full details of the Scheme and banking groups covered are available on the States of Jersey website [www.gov.je/dcs](http://www.gov.je/dcs), or on request.

In Canada, Citi Private Bank is a division of Citibank Canada, a Schedule II Canadian chartered bank. References herein to Citi Private Bank and its activities in Canada relate solely to Citibank Canada and do not refer to any affiliates or subsidiaries of Citibank Canada operating in Canada. Certain investment products are made available through Citibank Canada Investment Funds Limited ("CCIFL"), a wholly owned subsidiary of Citibank Canada. Investment Products are subject to investment risk, including possible loss of principal amount invested. Investment Products are not insured by the CDIC, FDIC or depository insurance regime of any jurisdiction and are not guaranteed by Citigroup or any affiliate thereof.

CCIFL is not currently a member, and does not intend to become a member of the Mutual Fund Dealers Association of Canada ("MFDA"); consequently, clients of CCIFL will not have available to them investor protection benefits that would otherwise derive from membership of CCIFL in the MFDA, including coverage under any investor protection plan for clients of members of the MFDA.

#### **Global Consumer Bank (Asia Pacific and EMEA):**

**"Citi analysts" refer to investment professionals within Citi Research ("CR"), Citi Global Markets Inc. ("CGMI"), Citi Private Bank ("CPB") and voting members of the Citi Global Investment Committee. Citibank N.A. and its affiliates / subsidiaries provide no independent research or analysis in the substance or preparation of this document.**

The information in this document has been obtained from reports issued by CGMI and CPB. Such information is based on sources CGMI and CPB believe to be reliable. CGMI and CPB, however, do not guarantee its accuracy and it may be incomplete or condensed. All opinions and estimates constitute CGMI and CPB's judgment as of the date of the report and are subject to change without notice. This document is for general information purposes only and is not intended as a recommendation or an offer or solicitation for the purchase or sale of any security or currency. No part of this document may be reproduced in any manner without the written consent of Citibank N.A. Information in this document has been prepared without taking account of the objectives, financial situation, or needs of any particular investor. Any person considering an investment should consider the appropriateness of the investment having regard to their objectives, financial situation, or needs, and should seek independent advice on the suitability or otherwise of a particular investment. Investments are not deposits, are not obligations of, or guaranteed or insured by Citibank N.A., Citigroup Inc., or any of their affiliates or subsidiaries, or by any local government or insurance agency, and are subject to investment risk, including the possible loss of the principal amount invested. Investors investing in funds denominated in non-local currency should be aware of the risk of exchange rate fluctuations that may cause a loss of principal. Past performance is not indicative of future performance, prices can go up or down. Investment products are not available to US persons. Investors should be aware that it is his/her responsibility to seek legal and/or tax advice regarding the legal and tax consequences of his/her investment transactions. If an investor changes residence, citizenship, nationality, or place of work, it is his/her responsibility to understand how his/her investment transactions are affected by such change and comply with all applicable laws and regulations as and when such becomes applicable. Citibank does not provide legal and/or tax advice and is not responsible for advising an investor on the laws pertaining to his/her transaction.

Citi Research (CR) is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. For more information, please refer to [https://www.citivelocity.com/cvr/epublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/epublic/citi_research_disclosures).

#### **Market Specific Disclosures**

**Australia:** This document is distributed in Australia by Citigroup Pty Limited ABN 88 004 325 080, AFSL No. 238098, Australian credit licence 238098. Any advice is general advice only. It was prepared without taking into account your objectives, financial situation, or needs.

Before acting on this advice you should consider if it's appropriate for your particular circumstances. You should also obtain and consider the relevant Product Disclosure Statement and terms and conditions before you make a decision about any financial product, and consider if it's suitable for your objectives, financial situation, or needs. Investors are advised to obtain independent legal, financial, and taxation advice prior to investing. Past performance is not an indicator of future performance. Investment products are not available to US people and may not be available in all jurisdictions.

**Bahrain:** This document is distributed in Bahrain by Citibank, N.A., Bahrain. Citibank, N.A., Bahrain, may in its sole and absolute discretion provide various materials relating to the securities for information purposes only. Citibank, N.A., Bahrain is licensed by the Central Bank of Bahrain as a Conventional Retail and Wholesale Bank and is bound by the CBB's regulations and licensing conditions with regards to products and services provided by Citibank, N.A. Bahrain. These terms are governed by and shall be construed in accordance with the laws of the Kingdom of Bahrain. The Customer irrevocably agrees that the civil courts in the Bahrain shall have non-exclusive jurisdiction to hear and determine any suit, action or proceeding and to settle any disputes which may arise out of or in connection with these Terms and Conditions and for such purposes the Customer irrevocably submits to the jurisdiction of such courts. Investment products are not insured by government or governmental agencies. Investment and Treasury products are subject to Investment risk, including possible loss of principal amount invested. Past performance is not indicative of future results: prices can go up or down. Investors investing in investments and/or treasury products denominated in foreign (non-local) currency should be aware of the risk of exchange rate fluctuations that may cause loss of principal when foreign currency is converted to the investors' home currency. Investment and Treasury products are not available to U.S. persons. All applications for investments and treasury products are subject to Terms and Conditions of the individual investment and Treasury products. Customer understands that it is his/her responsibility to seek legal and/or tax advice regarding the legal and tax consequences of his/her investment transactions. If customer changes residence, citizenship, nationality, or place of work, it is his/her responsibility to understand how his/her investment transactions are affected by such change and comply with all applicable laws and regulations as and when such becomes applicable. Customer understands that Citibank does not provide legal and/or tax advice and are not responsible for advising him/her on the laws pertaining to his/her transaction. Citibank Bahrain does not provide continuous monitoring of existing customer holdings.

**People's Republic of China:** This document is distributed by Citibank (China) Co., Ltd in the People's Republic of China (excluding the Special Administrative Regions of Hong Kong and Macau, and Taiwan).

**Hong Kong:** This document is distributed in Hong Kong by Citibank (Hong Kong) Limited ("CHKL") and Citibank N.A.. Citibank N.A. and its affiliates / subsidiaries provide no independent research or analysis in the substance or preparation of this document. Investment products are not available to US persons and not all products and services are provided by all affiliates or are available at all locations. Prices and availability of financial instruments can be subject to change without notice. Certain high-volatility investments can be subject to sudden and large falls in value that could equal the amount invested.

**India:** This document is distributed in India by Citibank N.A. Investment are subject to market risk including that of loss of principal amounts invested. Products so distributed are not obligations of, or guaranteed by, Citibank and are not bank deposits. Past performance does not guarantee future performance. Investment products cannot be offered to US and Canada Persons. Investors are advised to read and understand the Offer Documents carefully before investing.

**Indonesia:** This report is made available in Indonesia through Citibank N.A., Indonesia Branch. Citibank N. A., is a bank that is licensed, registered and supervised by the Indonesia Financial Services Authority (OJK).

**Korea:** This document is distributed in South Korea by Citibank Korea Inc. Investors should be aware that investment products are not guaranteed by the Korea Deposit Insurance Corporation and are subject to investment risk including the possible loss of the principal amount invested. Investment products are not available to US persons.

**Malaysia:** Investment products are not deposits and are not obligations of, not guaranteed by, and not insured by, Citibank Berhad, Citibank N.A., Citigroup Inc. or any of their affiliates or subsidiaries, or by any government or insurance agency. Investment products are subject to investment risks, including the possible loss of the principal amount invested. These are provided for general information only and are not intended as a recommendation or an offer or solicitation for the purchase or sale of any security or currency or other investment products. Citibank Berhad does not represent the information herein as accurate, true or complete, makes no warranty express or implied regarding it and no liability whatsoever will be accepted by Citibank Berhad, whether in contract, tort or otherwise, for the accuracy or completeness of such information including any error of fact or omission herein which may lead to any direct or consequential loss, damages, costs or expenses arising from any reliance upon or use of the information in the material. The contents of these materials have not been reviewed by the Securities Commission Malaysia.

**Philippines:** This document is made available in Philippines by Citicorp Financial Services and Insurance Brokerage Phils. Inc, and Citibank N.A. Philippine Branch. Investors should be aware that Investment products are not insured by the Philippine Deposit Insurance Corporation or Federal Deposit Insurance Corporation or any other government entity.

**Singapore:** This report is distributed in Singapore by Citibank Singapore Limited ("CSL"). Investment products are not insured under the provisions of the Deposit Insurance and Policy Owners' Protection Schemes Act of Singapore and are not eligible for deposit insurance coverage under the Deposit Insurance Scheme.

**Thailand:** This document contains general information and insights distributed in Thailand by Citigroup and is made available in English language only. Citi does not dictate or solicit investment in any specific securities and similar products. Investment contains certain risk, please study prospectus before investing. Not an obligation of, or guaranteed by, Citibank. Not bank deposits. Subject to investment risks, including possible loss of the principal amount invested. Subject to price fluctuation. Past performance does not guarantee future performance. Not offered to US persons.

**UAE:** This document is distributed in UAE by Citibank, N.A. UAE. This is not an official statement of Citigroup Inc. and may not reflect all of your investments with or made through Citibank. For an accurate record of your accounts and transactions, please consult your official statement. Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Each investor should carefully consider the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objectives. At any time, Citigroup companies may compensate affiliates and their representatives for providing products and services to clients.

**United Kingdom:** This document is distributed in the U.K. by Citibank UK Limited and in Jersey by Citibank N.A., Jersey Branch.

Citibank UK Limited is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Our firm's Financial Services Register number is 805574. Citibank UK Limited is a company limited by shares registered in England and Wales with registered address at Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB, Companies House Registration No. 11283101.

Citibank N.A., Jersey Branch is regulated by the Jersey Financial Services Commission. Citi International Personal Bank is registered in Jersey as a business name of Citibank N.A. The address of Citibank N.A., Jersey Branch is P.O. Box 104, 38 Esplanade, St Helier, Jersey JE4 8QB. Citibank N.A. is incorporated with limited liability in the USA. Head office: 399 Park Avenue, New York, NY 10043, USA.

© All rights reserved Citibank UK Limited and Citibank N.A. (2022).

**Vietnam:** This document is distributed in Vietnam by Citibank, N.A., - Ho Chi Minh City Branch and Citibank, N.A. - Hanoi Branch, licensed foreign bank's branches regulated by the State Bank of Vietnam. Investment contains certain risk, please study product's prospectus, relevant disclosures and disclaimers and the terms and conditions for details before investing. Investment products are not offered to US persons.

This document is for information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities to any person in any jurisdiction. The information set out herein may be subject to updating, completion, revision, verification and amendment and such information may change materially.

Citigroup, its affiliates and any of the officers, directors, employees, representatives or agents shall not be held liable for any direct, indirect, incidental, special, or consequential damages, including loss of profits, arising out of the use of information contained herein, including through errors whether caused by negligence or otherwise.

© 2022 Citigroup Inc. Citi, Citi and Arc Design and other marks used herein are service marks of Citigroup Inc. or its affiliates, used and registered throughout the world.