TD Wealth

Stalemate

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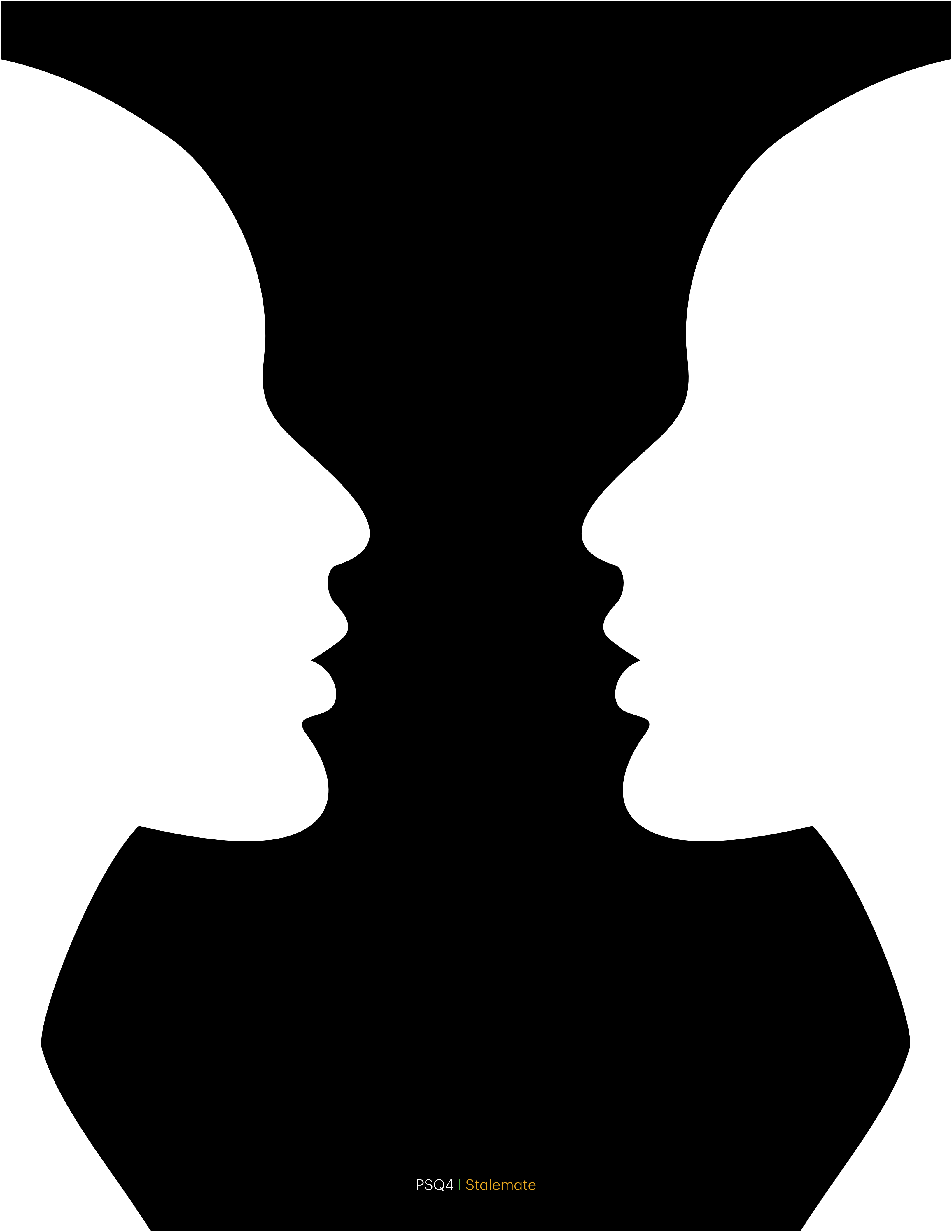
PSQ4 | Stalemate

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Stalemate.

Investors are split between two camps. In one, there are those who see light at the end of the tunnel — an imminent end to the pandemic followed by years of growth stemming from support from consumers, businesses, technology and policymakers. In the other, there are those who worry about what can go wrong - the possibility of yet another pandemic wave, the removal of policy supports too soon, and a slowdown in consumer and business spending. One side believes that inflation is temporary; the other side thinks these spikes are just the beginning of something more ominous.

We humans love simple narratives like this, but the reality is, financial markets almost never move in such binary lockstep because they are open and complex — and nothing like the kind of code (1s and 0s) that run our superbly predictable computer programs. Financial markets are the opposite of that. They are messy and unpredictable because they are made up of unpredictable human beings making decisions that are not always rational.

Which is not to say that financial markets are indiscernible. Over the long term, the correlation between market performance and economic growth is almost perfect, and indeed, economic growth follows a well-established cyclical pattern. It's in the near term, rather, that you find the uncertainty — when political decisions muddy the waters, when disruptive technologies unlevel the playing field, and yes, when pandemics shut down the entire global economy. It's in the moment that we humans tend to trip up.

The outcome, ultimately, will have little to do with the pieces on the board, and more to do with the players themselves.

Stay safe and be well,

Brad Simpson

Chief Wealth Strategist, TD Wealth

Cracking Complexity

Complexity

Blue-collar Bump

Low-paid service sector workers are leaving their jobs and re-evaluating their prospects, leading to labour shortages and hourly wage increases. For the first time in 20 years, increases in earnings for low-skilled workers have exceeded those for higher-skilled workers.

Transitory ... right?

Inflation remains elevated in the U.S., with core prices near 30-year highs. The Fed has responded by speeding up its tightening schedule, although it still believes that price spikes are due to labour shortages and supply-chain bottlenecks, which are temporary.

Hawks Circling

While tapering has yet to begin in the U.S., central banks around the world have already begun withdrawing stimulus. In Canada, weekly asset purchases have been steadily reduced. In Europe, monthly emergency bond purchases are being trimmed.

Taper, Minus the Tantrum

The Fed's warning last month about a possible November taper sent yields higher, but nothing resembling the spikes of 2013. Central bankers seem to have learned from that mistake, telegraphing a gradual and highly predictable withdrawal of stimulus.

The Pushmi-Pullyu Market

Like the two-headed animal of Dr. Dolittle fame, risk sentiment has pulled from value to growth and back again. Weird market dynamics are at play here, but a better balance should be achieved within nine months or so.

Base-jumping

Growth figures are coming off peaks, which has led to skittishness. But these meteoric ascents are merely a result of "base effects" that compare today's economic activity to last year's near total shutdown.

Margins > 30 years

What happens when prices rise and interest rates fall? Corporations thrive. Leverage ratios are now below pre-pandemic levels and profit margins are the strongest they've been in 30 years. It all points to resilient corporate financial health.

Less is more

We may have observed the first reverberations of the decarbonization theme on asset prices. The impact of this potential supercycle in oil markets will likely differ this time as high prices will be a result of supply declining at a faster clip than demand, in contrast to previous cycles when growing demand led prices higher.

Adaptation

Process Over Prediction

We manage investments based on a guiding set of principles designed to work in a world that's constantly changing. We focus on investor's goals and true diversification. We build resilient portfolios that aim to perform regardless of the environment.

Foursquare

There are four basic economic environments: rising growth, falling growth, rising inflation and falling inflation. Markets react as economies shift from one to another, but transitions are unpredictable and can be fraught. We don't predict the future, we invest in all four areas.

Stage-based Tactics

We use an "economic cycle framework" that tactically under- or overweight asset classes, sectors and risk factors that are likely to under- or outperform during various stages of the economic recovery.

7 Years Bad Luck

Markets are awful at predicting rate hikes. In 2008, investors were bracing for hikes, which didn't actually occur until seven years later. Then, in 2015, they vastly underestimated the speed of those hikes. Bottom line: The Fed responds to data, not sentiment.

High-odds Proposition

Over the long term, it's been almost impossible to lose money on the broad market. The probability of making at least some money on the S&P 500 over a five-year period is 85%; over a 20-year period it's 100%.

Remember the 10/10/10 Rule

How are you likely to feel about this in 10 minutes vs. 10 months vs. 10 years? Be patient. There's a reason it's considered a virtue.

Bulls Over Bears

Since 1942, the average U.S. bull market has risen 151% over 52 months. That compares to the average bear market falling 32% over 11 months. Bull markets on average go about five times further and five times longer than bears.

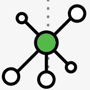
True Diversification

To prosper in this new world, investors need a contemporary portfolio approach with true diversification, balancing: (1) broad asset allocation and (2) risk-factor diversification with (3) a deep understanding of financial behaviour.

PSQ4 | Executive Summary

House Views | Fixed income, modest underweight: High-quality investment-grade corporate bonds offer some value over government bonds, which continue to deliver negative real returns. • **Equities, modest overweight:** Despite equity prices at the high end of historical ranges, we do not view valuations as excessive. Positive earnings growth should drive positive returns, although more modest returns compared to the previous 12 months. • **Real assets / Alternatives, modest overweight:** Alternative assets can act as a key portfolio complement, helping to provide a yield enhancement over traditional fixed income assets. • **Sub-classes**: We maintain our neutral outlook on the US dollar, but we could see additional support from higher inflation and tapering prospects. We are positive on the strategic prospects for Canadian economic growth and the loonie, relative to the USD. Fundamentals may be supportive of gold as the economy normalizes in the coming months.

Risk Environment | Risk conditions continued to decline in Q3 after peaking earlier this year. • **Economic Growth (Strong):** U.S. real GDP is expected to advance 5.9% in 2021 based on consensus forecasts, the highest level in about 40 years but less than the prior 6.4% forecast. • **Inflation (Weak):** CPI in the U.S. remains elevated at 5.4%. This number is unchanged from Q2. • **Employment (from Neutral to Strong):** Weekly claims are the lowest since the pandemic began and comparable to typical jobless claims pre-pandemic. • **Consumer Sector (Strong):** The Conference Board Consumer Confidence Index fell to a still positive 109.3 in Q3. • **Housing (Strong):** Home sales are at the highest levels since the 2008 global financial crisis while inventories are at their lowest levels in over 20 years. • **Business Conditions (Strong):** PMIs weakened in Q3 but remained in expansionary territory. • **Financial Conditions (Strong):** U.S. financial conditions remain extremely loose, aided by abundant liquidity and investor appetite for credit risk. • **Foreign Trade (Neutral):** The U.S. current account deficit was unchanged at 3.2% in Q3 as imports continued to rise alongside strong consumer and business spending, while demand for U.S. exports slipped. • **Fiscal Policy (Accommodative):** U.S. fiscal accommodation is expected to remain strong but gradually ease. • **Monetary Policy (Accommodative):** September extended the message from the June FOMC meeting, when the Fed first signalled an earlier-than-expected monetary tightening schedule. • **Risk Sentiment (from Strong to Neutral):** Implied volatilities for U.S. stocks rose slightly in Q3, suggesting investors expect above-average volatility over the next year.



Factor Analysis | Asset classes that benefit from rising inflation (commodities, inflation-linked bonds) outperformed in Q3 as investors grappled with slowing economic growth and rising inflation risk. Commodities delivered high-single-digit returns, benefiting from strong demand and intractable supply constraints. • Falling-growth assets, meanwhile (particularly nominal government bonds), were flat for the quarter after incurring losses in August and September as tapering drew near. The flat-rate market held back corporate bonds. Similarly, equities were flat for the quarter after a strong Q2 as emerging risks weighed on appetite for growth assets.

Economy | In this edition, our colleagues at TD Economics answer the questions foremost on the minds of investors today. • **What does peak growth mean for the economic cycle?** Slower economic growth does not mean the recovery is over, but that it is leaving the rebound phase. Low inventory-to-sales ratios, however, suggest potential for production growth once supply- and labour-related constraints are alleviated. Indeed, this recovery has been marked by continual complaints by employers that there are not enough people to hire. • **Does elevated inflation still appear temporary?** Many of the inflation spikes in 2021 are associated with supply-chain issues, shortages and the reopening of the economy. This suggests a transitory nature. Things associated with travel saw big price increases in the spring, and service providers are trying to make up for steep pandemic price drops. There are also unique, industry-specific factors, like semiconductor shortages limiting vehicle production and pushing up prices for both new and used cars. • **How will central banks react to the latest economic developments?** Despite recent weaker-than-expected economic data, the Federal Reserve and the Bank of Canada have maintained an optimistic view of the economic outlook. With confidence in ongoing growth, members of the Federal

Reserve board have increased their openness to tighter monetary policy. The median voter now expects rate hikes in 2022. At the same time, the Fed is planning to taper its quantitative-easing program. We expect this to be announced in November. • **What are the potential economic and financial impacts of another Liberal minority government in Canada?** The immediate financial market impact of the Liberal minority victory was negligible. Canadians know what to expect from a Liberal minority government, and this outcome provides a high degree of continuity. Fiscal policy will likely remain loose under this government. As before, the Liberals will have to seek compromise to enact new legislation, given that they will need support from opposition parties to fulfill their spending commitments. This dynamic could generate higher spending and deficit outcomes.

■ **Fixed Income** | Encouraging economic data prompted the Fed in September to suggest it could start tapering asset purchases at its November meeting. Yields moved upward on the news, but nothing like the "taper tantrum" of 2013. This time, the Fed has taken steps to prepare markets for a gradual unwinding of the quantitative-easing program and an eventual tightening of monetary policy. Within the fixed income market, corporate debt still holds selective opportunities. We remain modestly constructive on investment-grade credit although we're still cautious of expansive valuations. We maintain our underweight view on government bonds. We also maintain our defensive view on high-yield credit. With the ongoing challenges of lower yields and tighter spreads, it's important to highlight that bonds aren't meant to capture upside risk. They provide quality income and stability through downside protection.

■ **Equities** | Vaccine hesitancy, coupled with the rise of the delta variant, has prolonged the pandemic and brought equity markets to loggerheads. In the first half of Q3, these concerns led to falling Treasury yields, which boosted growth stocks. Then, in the latter half, the pendulum swung back. Inflation fears intensified due to rising supply constraints, which boosted yields and allowed value stocks and commodities to appreciate. These swings in sentiment are the result of a more distracted market and a more skittish investor. The skittishness may be premature, though. As we transition away from the meteoric growth resulting from base effects, it's important to note that growth is still expected to remain relatively high. The TD Economics expects global economic growth over the next few years to be significantly higher than it was over the past 10 years. Meanwhile, business confidence levels (as measured by purchasing managers' indices) and household spending power remain historically high, and Covid cases have moderated as of late, which should help to revitalize the economic recovery. In short, we believe there is more steam in the recovery trade, which should benefit value and cyclical stocks.

■ **Real Assets** | The value of real assets has shot up to record highs, leading investors increasingly to buy land for development. In the first three quarters of 2021, investors invested a record $9.9 billion into land purchases in Canada. While inflation remains a concern for most asset classes, real asset managers tend to be large debtholders, and as such have been able to benefit from low rates and high inflation. Given the inflationary environment, TD Wealth maintains a modest overweight stance on real assets. Both public and private real assets have exceeded pre-pandemic valuations on the strength of improving fundamentals combined with accommodative fiscal and monetary policy.

■ **Currencies** | The U.S. dollar now holds the steepest premium seen over the past few years over G10 currencies. While TD Securities expects some of this premium to erode, they believe that the USD will trade on a firmer footing into year-end, particularly against the funding currencies like EUR, JPY and CHF — all of which should struggle against a backdrop of higher US bond yields.

■ **Commodities** | Today's energy crisis stems from the combination of extreme weather and policy failures, the implications of which are now expanding beyond a global coal shortage towards natural gas, and are increasingly driving oil and fuel prices. • Metal supply risk is increasing as the global energy crisis escalates. Copper's cash-to-three-month spread has rallied to a decade high, indicating a substantial premium associated with prices for immediate delivery. • While stagflation has captured share of mind, it has yet to translate into additional gold demand. However, as the global energy crisis intensifies, reasons to own the yellow metal are also growing more compelling.

Market's Gambit

Brad Simpson, Chief Wealth Strategist, TD Wealth

In the game of chess, a stalemate occurs when, after a brutal war of attrition that usually leaves only kings and pawns on the board, the two players come to a grudging mutual agreement that neither side is likely to win. The players' respective forces are too depleted and too evenly matched. Every move would be countered perfectly back and forth *ad infinitum* … so they might as well shake hands and call it a tie.

The investment world is beginning to resemble just such a scenario, with market participants split between two camps. In one, you have the investors who see light at the end of the tunnel — an imminent end to the pandemic followed by years of strong growth stemming from support from consumers, businesses, technology and policymakers. In the other, you have the investors who worry about what can go wrong — the possibility of another variant and yet another pandemic wave, the removal of policy supports too soon, and a slowdown in consumer and business spending. One side believes that inflation is temporary and reasonable given the unprecedented global economic restart. The other side thinks these spikes are just the beginning of a more persistent inflationary trend, maybe even the lead-up to a dreaded stagflation environment.

If these disagreements didn't complicate things enough, you also have the endless wrangling of American politicians (with trillions at stake), mountainous backlogs of container traffic and a global energy shortage. So it's no surprise that markets are a bit unsettled. Investors simply don't know where the winds are turning — East? West? — or how violent those winds are likely to be.

East, west. Up, down. Bulls, bears. We humans love simple narratives like this, but the reality is, financial markets almost never move in such a binary lockstep because they are open and complex — and nothing like the kind of binary code (1s and 0s) that run our superbly predictable computer programs. Financial markets are the opposite of that. They are messy and unpredictable because they are made up of unpredictable human beings making decisions that are not always rational.

Which is not to say that financial markets are indiscernible. Over the long term, the correlation between market performance and economic growth is almost perfect, and indeed, economic growth follows a well-established cyclical pattern. It's in the near term, rather, that you find the uncertainty — when political decisions muddy the waters, when disruptive technologies unlevel the playing field, and yes, when pandemics shut down the entire global economy. It's in the moment that we humans tend to trip up.

Figure 1: Stalemate

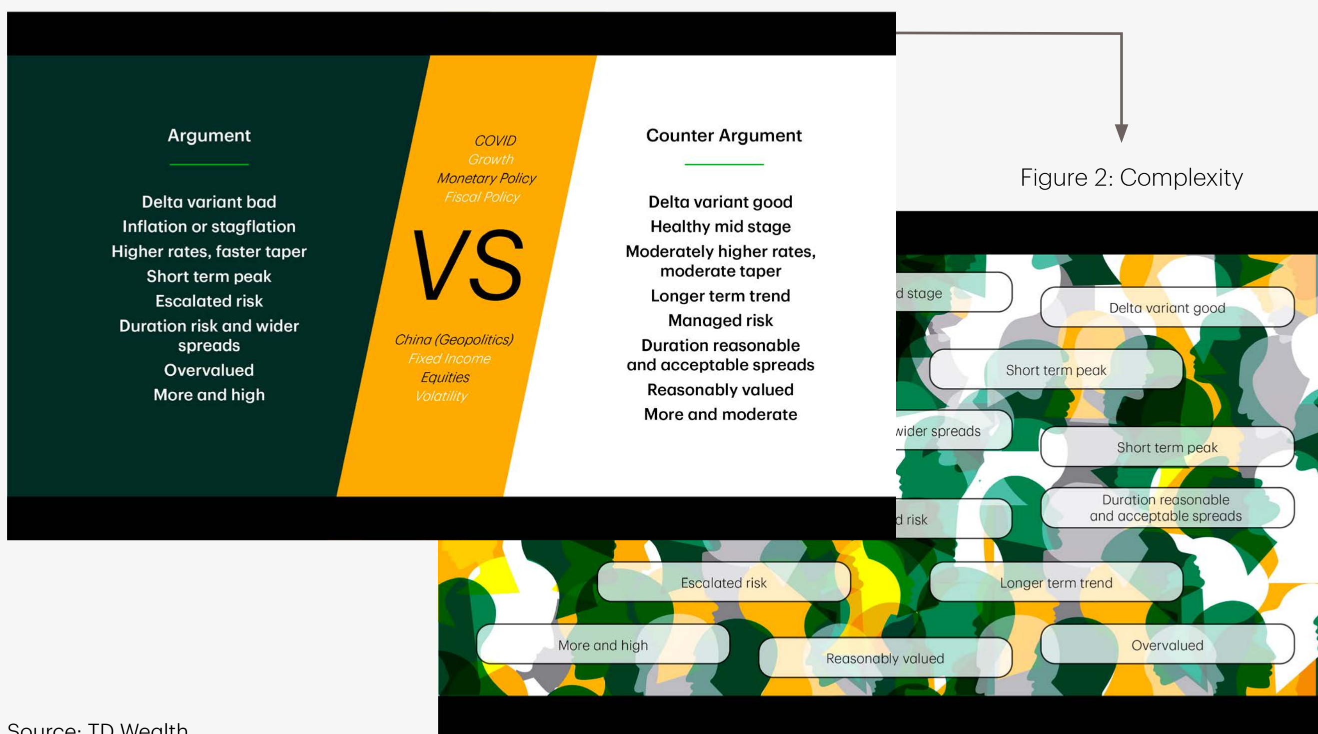


Figure 2: Complexity

Source: TD Wealth

At the risk of belabouring the point, consider our imaginary chess players. Imagine a world in which there was no such thing as a stalemate. Imagine that our chess players couldn't just shake hands and call it a day. Imagine that they (like the long-term investors in our financial markets) had to keep playing that frustrating back-and-forth game until a winner was determined? Theoretically, two computers facing off could hold a stalemate indefinitely — infinitely in fact, or until their circuits fried. That's a closed system. Human beings, on the other hand, would give out much sooner because human beings are susceptible to all manner of frailty: frustration, boredom, impatience, resignation, exhaustion. Eventually someone would slip up or give up. That's an open and complex system.

Ultimately, the outcome has little to do with the pieces on the board and more to do with the players themselves.

Covid-19: A study in non-binary complexity

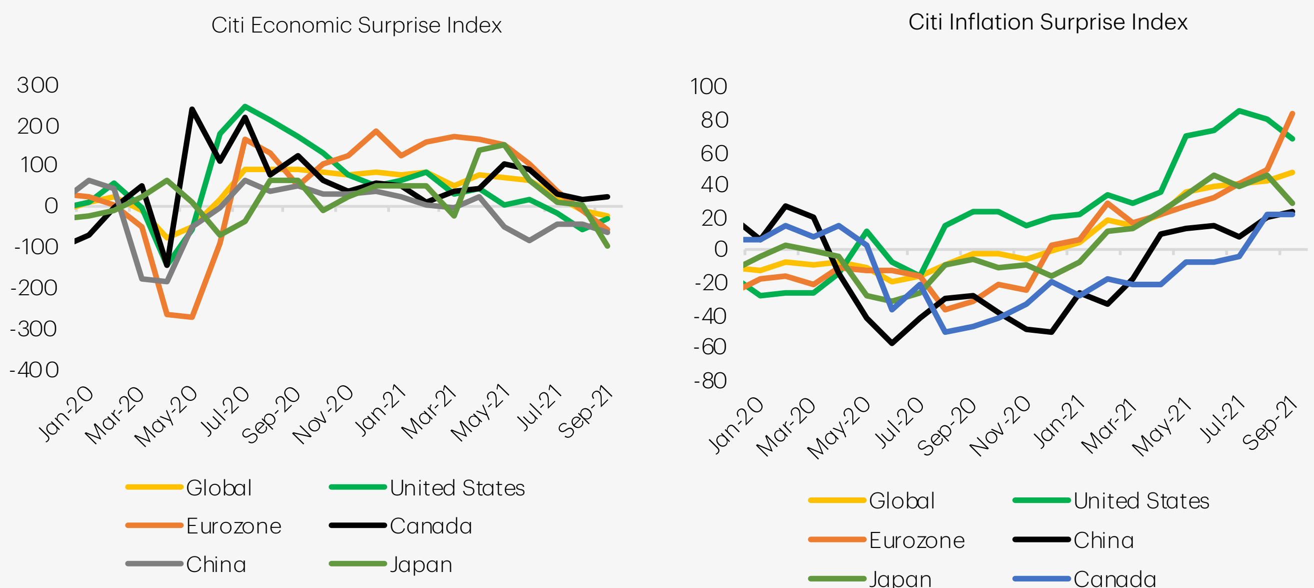
If anything demonstrates the incredible complexity of the markets, it's this pandemic. The measures we've taken to battle Covid-19 have forced the global economy to shrink, expand and contort itself into a variety of configurations. Over 18 months, we went from a recession with low inflation to growth with high inflation, and now we are on the cusp of entering a period of slowing growth with inflation (aka "stagflation") — all in record time. Since the start of the pandemic, major economies have shifted from one macro environment to another in a matter of months.

Briefly, let's run down the macro events as they've unfolded so far. When the pandemic hit and businesses and consumer activities went into lockdown, most developed economies fell into a deep recession. Central banks and governments responded by unleashing record liquidity and fiscal spending. As economies reopened after months of lockdown, business activities and consumer demand surged, which launched the economic expansion. This demand shock occurred without creating significant inflationary pressures because there was sufficient excess capacity (owing to being shut down for a few months) to accommodate the spike in demand.

The recovery accelerated following vaccine breakthroughs in November 2020 and the mass mobilization of vaccines in early 2021. Inflation pressures eventually picked up as strong demand squared up against increasingly stubborn supply and labour constraints. Growth expectations began to decelerate into the second and third quarter of 2021, while rising inflation pressures persisted. These pressures have compelled central banks to announce cutbacks in monetary support over the near term.

Pretty straightforward, right? But zoom in and you discover enormous complexity in those little moments we were talking about earlier — specifically, the moments that defy our expectations and alter our perceptions about market risks and economic prospects. In other words, the surprises. And a handy tool for tracking surprises can be found in the Citi Economic and Inflation Surprise Indices (Figure 3).

Figure 3: Expectations Unmet



Source: Bloomberg Finance L.P., as of September 30, 2021

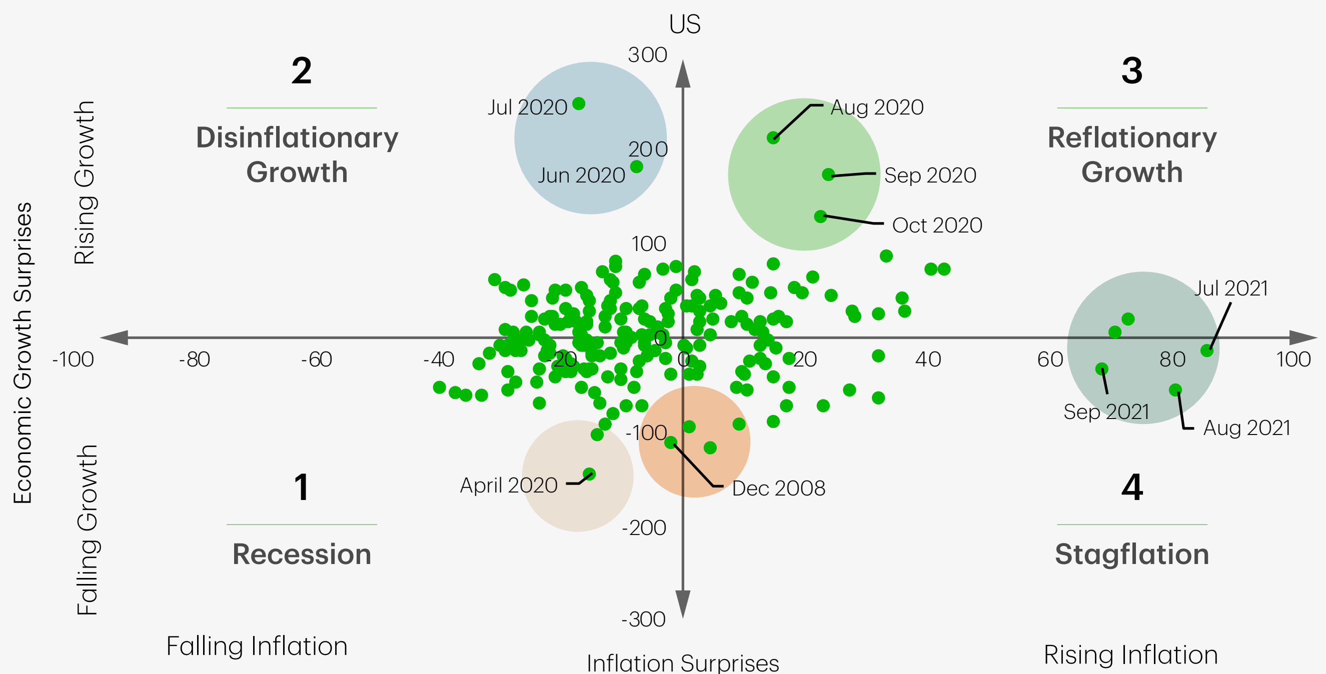
As you can see, economic growth surprises plummeted at the onset of the pandemic as economies went into lockdown. They sharply rebounded starting in May 2020 as economies reopened and the contraction turned out to be less severe than expected. Growth continued to beat estimates over the next few quarters, but the magnitude of surprises declined as economists adjusted their estimates over time. Growth expectations weakened starting in Q2 and into Q3 as vaccination rates stagnated, the pandemic-induced demand shock subsided, and global supply-chain bottlenecks and labour shortages proved intractable.

During this time, inflation surprises fell deep into negative territory at the beginning of the pandemic as widespread economic shutdowns decimated aggregate demand. Inflation surprises recovered slowly and moved into positive territory starting in Q3 2020 in the U.S. (and later elsewhere). Since then, inflation has consistently exceeded estimates, and the level of surprises has only risen over time as market participants and policymakers consistently discounted high inflation risk as transitory. Inflation surprises peaked in Q3 2021, but that's partly because market participants and policymakers have accepted higher inflation as more persistent than anticipated and raised their estimates over time.

Take these individual economic surprises and lay them out across a matrix of four economic quadrants, and you get an even deeper layer of complexity. These quadrants (Figure 4) are based on the four macro environments: (1) disinflationary growth; (2) reflationary growth; (3) recession; and (4) stagflation. Each point on the chart represents the level of growth and inflation surprises that occurred in each month since 2001. For any given month, growth surprises are positive when actual growth exceeds consensus estimates and negative when the opposite occurs. Similarly, inflation surprises are positive when actual inflation beats the consensus forecast for that month. The higher the values, the more realized growth or inflation has exceeded estimates.

The speed of macroeconomic shifting has been astonishing as we've witnessed major economies move from deep recession into expansion, and then on the cusp of stagflation within an 18-month period. The U.S., Canada, eurozone and emerging-market economies all went through this experience since the pandemic, albeit in slightly different manners. Using the U.S. as an example, the American economy fell into a recession in April 2020, when economic growth and inflation surprises were both negative. This period is marked by the beige bubble in the bottom left quadrant. By June and July 2020, growth began to exceed estimates while inflation surprises remained negative, meaning the environment was disinflationary. This was when the economy was in its disinflationary growth mode. We mark this with the light blue bubble in the top left quadrant.

Figure 4: Surprises all around



Source: TD Wealth, Bloomberg Finance L.P., as of September 30, 2021.

The economic expansion shifted to reflationary growth mode from August to September 2020, as inflationary pressures picked up. We saw government yield curves steepen significantly during this period alongside rising growth and inflation expectations. This period lasted until mid-2021, when growth fell in line with estimates while inflation remained stubbornly high. If actual growth weakens further and fails to meet expectations while elevated inflation persists, then we can credibly say we've entered the much-dreaded stagflation zone, at least in terms of actual growth and inflation versus estimates. Even if stagflation emerges, though, it's likely to be much more benign than the 1970s experience, which saw double-digit inflation and required the Fed to hike interest rates to double-digit levels.

When we compare the Covid-19 recovery with the 2008 experience, the contrast is stark. In 2008, economic growth and inflation surprises zig-zagged across the four quadrants non-linearly and this behavior lasted multiple years (Figure 5). The shifts from one quadrant to another were not as erratic or pronounced as what happened during the pandemic. Thus, the post-2008 recovery was not straightforward, quick, or volatile compared to the economic recovery during the pandemic.

Deconstructing the stalemate

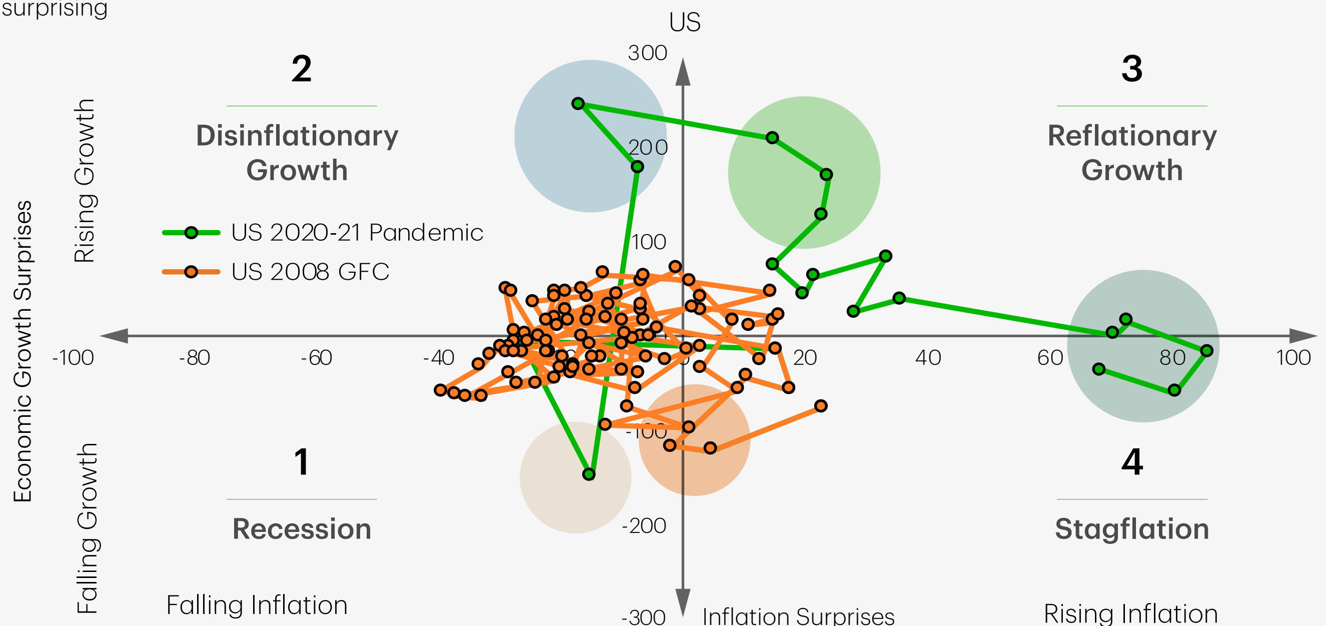
As we transition through regimes, much of the concerning data will likely stabilize, and it will also become more mixed. It's not all positive surprises anymore, which is consistent with what we are starting to see:

Headwind No. 1 – Economic growth is going from high to moderate. Growth started to come off its peak sometime around June, which was an unsettling turn of events for investors who became accustomed to seeing only an acceleration. It should be noted, however, that the kind of growth figures seen at their peaks were somewhat illusory given the dismal economic conditions of 2020. These "base effects," along with pent-up demand, account for much of the meteoric rise we've seen. As growth figures come back down to earth, investors should not mistake a moderation in growth for a deterioration in business conditions.

Headwind No. 2 – Inflation going from moderate to high. The startling rise in price growth — approaching 30-year highs by some measures — seems to have taken us all by surprise. Even central banks have had to speed up their tightening schedule. So far, many of the price spikes can be explained away by supply-chain disruptions (for energy in particular), rent and owners' equivalent rent, and labour shortages amid the "Great Resignation." But even policymakers have acknowledged that inflation is likely to remain above their 2% target for years to come.

Headwind No. 3 – Monetary policy moving from loose to neutral, knocking on the door of tightening. In Europe and Canada, central banks have already begun to dabble in minor tightening measures, but the Fed is really just talking about it. In September, the Fed Chair announced the possibility of a taper by the end of the year. This should by no means be taken as a shift to hawkishness. Rather, the central bank is moving from ultra-accommodative policy to slightly less ultra-accommodative.

Figure 5: Recovery in 2008 was more drawn-out, less surprising



Source: TD Wealth, Bloomberg Finance L.P., as of September 30, 2021

Headwind No. 4 – Chinese macro picture will remain challenging. Ongoing electricity issues and a slowdown in the real estate sector continue to be two of the most pressing concerns for the Chinese economy. Further, China's recently launched "Common Prosperity" regime and the "summer blizzard" of regulatory actions has resulted in crackdowns on a wide range of sectors including online consumer platforms, fintech, gaming, private education, and many more. There remain a great deal of potential hiccups as we move forward.

On the other side of the chessboard, an array of equally matched tailwinds are making an argument for continued growth:

Tailwind No. 1 – Financial conditions still very supportive. The economic reopening in developed economies unleashed a tsunami of pent-up demand that has propelled corporate earnings far beyond expectations in 2021. As demand recedes, earnings growth should naturally moderate. However, we should keep in mind that zero-level interest rates have allowed corporations to replenish their balance sheets and lock in for many years to come. Indeed, debt-servicing costs have plummeted and U.S. profit margins are now sitting at 30-year highs, which should continue to support earnings moving forward.

Tailwind No. 2 – Interest rates are expected to remain close to zero until later 2022. Although central banks have pulled their tightening schedules forward, most are still a long way off from raising rates. After over a decade of below-target inflation, the world's major central banks are taking a more measured approach and would rather err on the side of maintaining loose policy than on hiking rates prematurely. Consistent with the central bank stance, fixed income markets also expect U.S. policy interest rates to remain anchored to 1% until the second half of 2024.

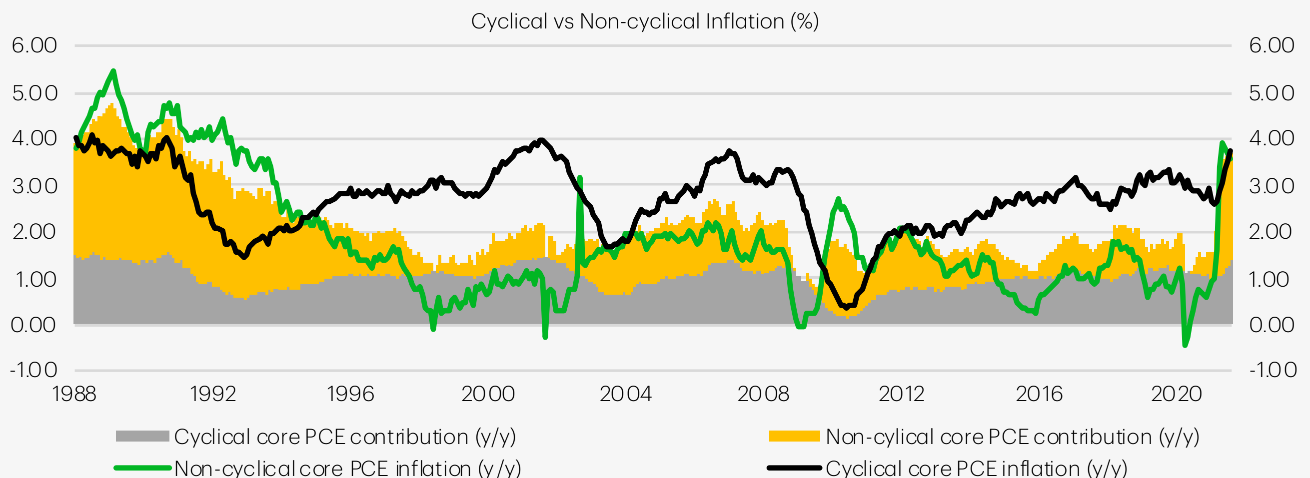
Tailwind No. 3 – Companies will need to ramp up production to restore depleted inventory. Companies that had been running on skeleton crews during the economic lockdown found themselves unequipped to meet the wave of demand that hit them when the economy reopened. From a macroeconomic perspective, the surge in consumer spending occurred as business investment remained low. Now the other side of the economy should take over, with business investment ramping up to restock shelves. That means more hiring, more supply orders and a healthier economy overall.

Tailwind No. 4 – Fiscal spending is also likely to remain positive even though the impulse is negative. American investors may be flabbergasted by the political wrangling that's whittling away the President's promise of $3.5 trillion in investments. Keep in mind, however, that even a $1-trillion package represents an enormous injection of fiscal stimulus. And the same thing is happening around the world. In Europe, the election of a centre-left government in Germany will make that corner of the world less austere. In Japan, meanwhile, the incoming prime minister has promised "tens of trillions of yen" in fiscal stimulus.

Inflation: Transitory or Persistent?

Let's take a moment to address one of the biggest pieces on the board: inflation, and whether it's likely to cause headaches in the future. We can break inflation down into two components: cyclical and non-cyclical (Figure 6). Cyclical spending involves the types of things that you want but could probably hold off on buying — think household products, personal care, clothing, entertainment. These kinds of discretionary purchases are highly dependent on economic conditions; the better the economy, the more likely you are to indulge. As for non-cyclicals, they're not so

Figure 6: Needs are driving the bulk of inflation



Source: Federal Reserve Bank of San Francisco, Bloomberg Finance L.P. as of October 4, 2021

much driven by wants or economic cycles because they involve purchases that you always need — things like health care, education, and internet services.

A lot of the inflation that we're seeing right now is non-cyclical, which makes sense given the rising price of used cars and furniture. (See that green spike on the right side of the graph?) Because this kind of spending is insensitive to overall economic conditions, blunt monetary policy will likely be ineffective in combatting it. This type of inflation is more sensitive, rather, to industry-specific dynamics, such as the bottlenecks and supply disruptions. What this means is that the inflation we're seeing today is likely to persist until those industry constraints are resolved. Should the cyclical component of inflation (which currently makes up about 33% of the total) continue to spike, central banks will be more likely to aggressively intervene.

How to position yourself in a stalemate

Great, so we all understand the arguments on either side of the stalemate, *but what does it mean from an investment perspective?* How do you orient yourself when you're floating in limbo? Let's start by breaking it down by the major asset class, and then we'll get into the strategic mindset.

When it comes to fixed income, we believe global central banks are likely, despite recent inflationary spikes, to hold steady on rates for the near term. The Fed suggested there will be an announcement of tapering at the November meeting. This is less likely to result in the kind of yield spikes witnessed during the 2013 "taper tantrum" given the Fed's careful forward-messaging (both in June and September). Moreover, the Fed has taken a different approach this time around, setting a regular timetable for a wind-down instead of making decisions on a case-by-case basis at each policy meeting.

Fixed income portfolios are challenging, but corporate debt still holds select opportunities. Overall, it's important to remember that bonds are not meant to capture upside during a market rally. Rather, they are meant to provide quality income, diversification benefits and, as we saw in the spring of last year, they are meant to insulate portfolios during periods of elevated volatility.

Equities, meanwhile, are trading at the high end of historical ranges, but we don't believe valuations are excessive. As markets have risen this year, forward P/E ratios have declined as earnings growth drove markets higher. Over the near term, we expect earnings growth to follow economic growth, which is still positive, just at a more moderate level than what we've seen recently.

Fixed Income
Modest Underweight

- Fixed income portfolios are challenging
- Central banks likely to hold steady on rates until later in 2022
- There are select corporate debt opportunities
- Potential benefits of bonds: quality income, diversification, insulates from volatility

Equities
Modest Overweight

- Valuations not excessive
- Expect earnings growth to follow economic growth
- Keep a balanced view with a more defensive stance
- A focus on companies with strong market positions and balance sheets

Alternatives/ Real Assets Modest
Modest Overweight

- A case for global real estate
- Real estate as an inflation hedge
- Modest weight on infrastructure as an asset class
- Firms are staying private for longer, spending more of their fastest-growing years and accompanying valuation gains in the private markets

Similarly, we expect that equity markets will continue to deliver positive returns — albeit less so than the past year. With slower growth on the horizon, however, it's important to keep a balanced view of equities, with a more defensive stance. Focus on companies with strong market positions, strong balance sheets, and solid earnings and cash flow.

As for real assets, we believe that global real estate assets offer a compelling addition, thanks to their attractive income, their ability to offset inflation and their potential to improve risk-adjusted returns. We maintain our modest overweight position on infrastructure given that the asset class continues to offer stable returns, with low correlation to other asset classes, and an imbedded inflation hedge through contracted increases in revenue.

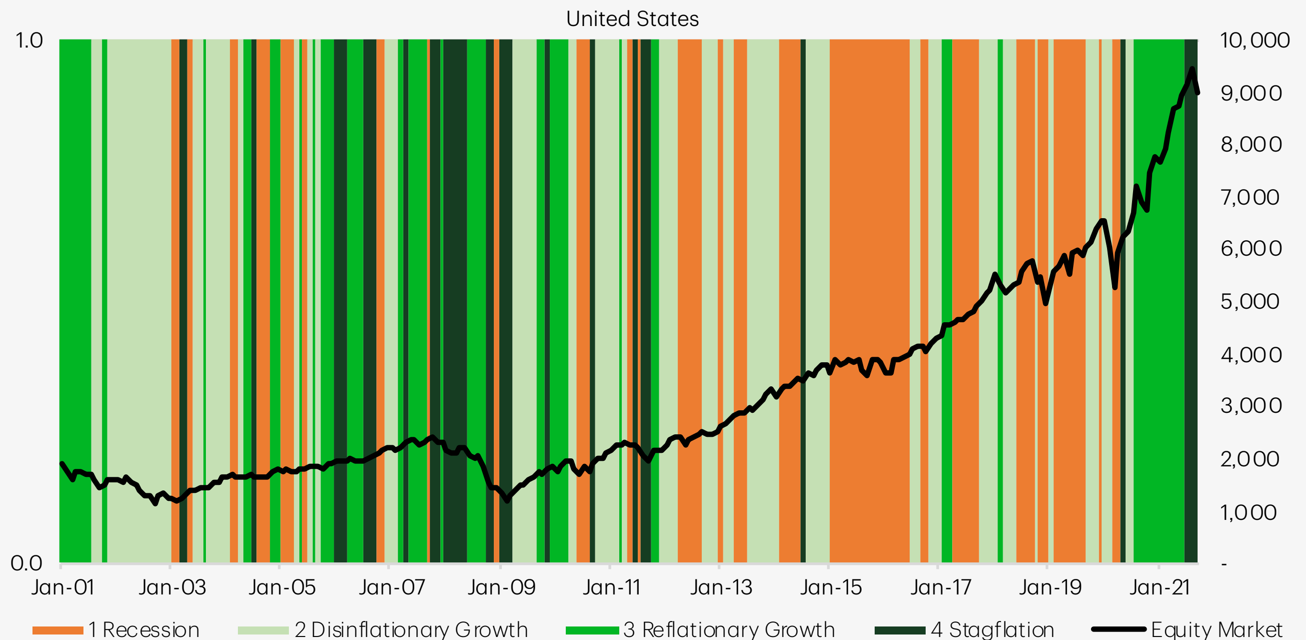
Ultimately, though, our view here is to avoid getting caught up on either side of this stalemate because the highest probability is that both sides of the debate have valid points that will be incorporated into the risk environment as we go forward. What's more, financial markets never play out precisely according to plan and are bound to be influenced by factors that we have yet to uncover — things we can't even imagine yet.

That's why a key element of our strategy involves positioning ourselves to take advantage of all four economic environments: recession, disinflationary growth, reflationary growth and stagflation. These can be thought of as economic "seasons," given that each environment tends to be in place for about one-quarter of the time (Figure 7). If we track the seasons over the past 20 years by region, however, the differences between the markets are interesting (Figure 8). Keep in mind that these numbers are based on economic growth and inflation surprises — the difference between actual and expected growth and inflation.

Recession, disinflationary growth and reflationary growth occurred about 20% to 35% of the time across most markets. Stagflation is most common in Japan, given the decades-long challenge Japanese policymakers have had with deflation. Canada has more occurrences of disinflationary growth than the U.S. but the frequency is in line with the global rate. As expected, emerging markets have the least occurrences of stagflation. This also makes sense intuitively, since EM economies are still developing and generate higher growth. Higher inflation is also a common problem in emerging markets, but inflation pressures have eased over time as these economies developed. This is especially true in China.

As always, portfolios should be structured to withstand all types of economic environments. We approach asset allocation with that as our core and make adjustments at the margin to reflect the most likely environment in the near term. Most importantly, portfolios need to be properly diversified and managed for the client's specific goals and needs.

Figure 7: Economic seasons (2001-2021)



Source: TD Wealth, Bloomberg Finance L.P., as of September 30, 2021.

Figure 8: Frequency of each macroeconomic environment

Scenario	Global	United States	Eurozone	United Kingdom	Canada	Japan	China	Emerging Markets	Latin America
Recession	29%	31%	21%	21%	24%	18%	23%	30%	29%
Disinflationary Growth	39%	35%	31%	25%	41%	24%	31%	40%	30%
Reflationary Growth	20%	22%	28%	35%	23%	28%	32%	21%	19%
Stagflation	12%	13%	20%	20%	13%	29%	14%	8%	21%

Source: TD Wealth, Bloomberg Finance L.P., as of September 30, 2021.

Leading Macro Indicators

We closely monitor many variables to inform our understanding of the economic and financial environment. For each indicator, we calculate current values and compare them against recent trends and long-term history using a standardized approach that makes it possible to aggregate across indicators. See Figure 4 on page 67 for the full list. The table and graph below summarize the overall condition and aggregate score of the indicators.

Figure 1: Market Risk Regime Scores

Indicator	Overall Condition	Current	Jun-21	Mar-21	Dec-20	Sep-20
Economic Growth	Strong	1.5	2.2	2.0	(2.6)	(3.0)
Inflation	Weak	(0.9)	(0.8)	0.6	(0.4)	(0.9)
Employment	Strong	0.9	0.3	0.4	0.3	0.2
Consumer	Strong	0.6	0.6	0.3	(0.1)	0.2
Housing	Strong	1.5	1.3	1.2	1.1	0.8
Business Conditions	Strong	0.9	1.1	1.0	0.0	(0.4)
Financial Conditions	Strong	0.7	0.8	0.7	0.5	(0.1)
Foreign Trade	Neutral	(0.4)	(0.3)	(0.3)	0.0	0.0
Fiscal Policy	Accomodative	1.5	1.8	1.9	1.9	2.2
Monetary Policy	Accomodative	0.8	0.7	3.2	3.4	3.3
Risk Sentiment	Neutral	0.5	1.2	1.3	0.9	0.4
Risk Regime Score	Low Risk	0.8	1.0	1.4	0.8	0.6
Risk Regime Score (excl. Fiscal/ Monetary Policy)	Low Risk	0.7	0.9	1.0	(0.1)	(0.4)

Scores represent number of standard deviations away from long-term average
Source: Bloomberg Finance LP and TD Wealth as of September 30, 2021.

Our risk regime indicators showed that risk conditions weakened in Q3, extending the trend that started in Q2. Monetary policy and inflation indicators, as well as investor risk sentiment were the biggest contributors to the downtrend. U.S. economic growth, business and financial conditions also slipped. Economic growth remains strong due to a robust recovery in consumer and business activities. The outlook for business activities and corporate earnings also remains above average, although investors expect earnings growth to slow after multiple quarters of higher than expected results. And while the Fed may start easing fiscal and monetary support, the level of accommodation remains high as policy makers try to engineer a fulsome recovery for the real economy as well as financial assets.

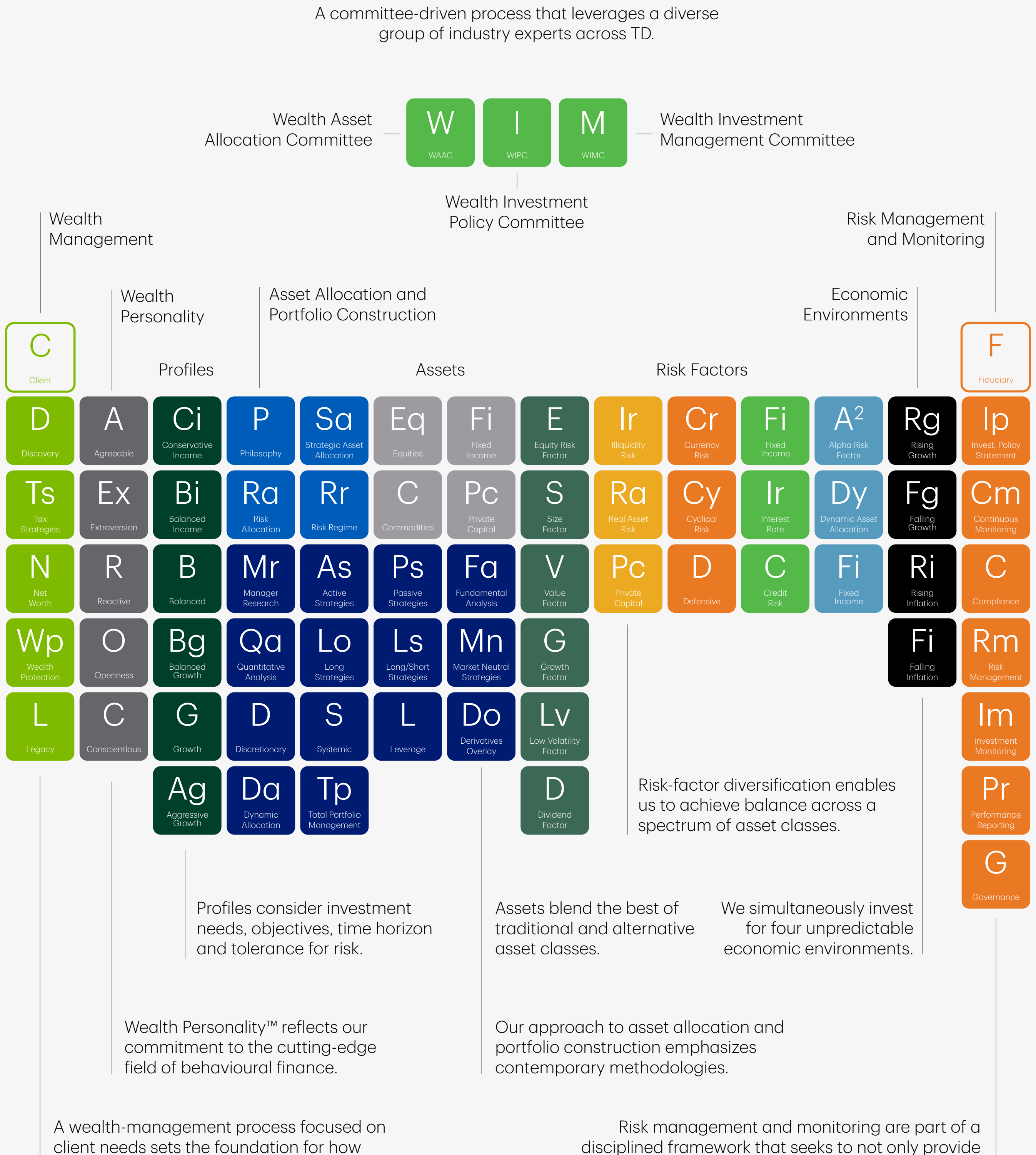
At the end of Q3, our overall market risk regime score stood at +0.8 (down from +1.0 at the end of Q2), which indicates a resilient regime that should be favourable for risk assets. Weaker growth, higher inflation, tighter monetary policy, and lower investor risk appetite were the main drivers behind the decline in the risk score. The inflation score slipped further from -0.8 standard deviation above the historical norm to -1.0 standard deviation below and the monetary policy score remained almost unchanged at +0.8 standard deviation above the norm. However, risk sentiment tumbled from +1.2 in Q2 to +0.4, as investors turned bearish. Fiscal policy indicators also retreated due to fiscal retrenchment and continuing challenges to the Biden administration's fiscal agenda. On the positive side, we saw stronger data for employment and housing. Overall, and despite the present threat of Covid-19 in developed and emerging markets, risk conditions continue to support risk assets.

Fiscal and monetary policies are central to all macro-environments and they continue to drive our aggregate risk regime score. They remain in resilient territory with a combined score of about +1.2 (unchanged from Q2), which means policies are accommodative, despite expectations that tightening is on the way. Even when we strip out the impact of fiscal and monetary support, the risk environment from Q1 to the end of Q3 remains resilient. Excluding fiscal and monetary accommodation, the risk regime score slipped to +0.7 which is 0.2 standard deviation lower than with fiscal and monetary policy. This score reflects an above average, or resilient, risk environment. The variation (or lack thereof) between the two scores suggests risk conditions are resilient on their own and not as dependent on fiscal and monetary support as they were in H2 2020. This is particularly the case for monetary policy because investors have already priced in a tightening cycle starting in late 2021. Despite this change, fiscal and monetary policy still underpin the overall risk regime so any unexpected shock from either would have a significant impact on investor risk sentiment. In September, we saw the impact of an unexpected shift in policy after the Fed said it could start scaling back asset purchases as soon as November and finish by mid-2022. This faster than anticipated pace partly triggered the September market selloff. □

Elements of Wealth Management

Investors are often left to make decisions without any formal process. Our solution? Follow an investment philosophy — a guiding set of principles designed to work in a world that's constantly changing, often with dramatic impact on financial markets. At TD Wealth, we call that philosophy "Risk Priority Management," and it provides the foundation for our decision-making process. That process is then broken down into its most basic components, similar to a periodic table of elements, as illustrated below, with groupings and weights. These components comprise our entire process, from wealth management to risk management to monitoring. All in all, there are 72 "elements" that fall into eight categories.

Figure 1: Elements



Wealth Asset Allocation Committee

The TD Wealth Asset Allocation Committee (WAAC) is composed of a diverse group of TD investment professionals. WAAC's mandate is to consider the financial market environment and provide direction and themes for equities, fixed income, real assets and sub-classes for the prevailing six to 18 months.

Considers the financial market environment and provides direction, themes and current stance.

Utilizing risk factors to manage exposures, we build and manage portfolios that blend the best of traditional and alternative asset classes.

Committee members:

Robert Vanderhooft, CFA ------------------------------- Chief Investment Officer, TD Asset Management Inc. (Chair)

Robert Pemberton, CFA --- Managing Director, TD Asset Management Inc.

David Sykes, CFA --- Managing Director, TD Asset Management Inc.

Michael Craig, CFA -- Managing Director, TD Asset Management Inc.

Jeffrey Trip, CFA --- Managing Director, TD Asset Management Inc.

Kevin Hebner, Ph.D. --- Managing Director, Epoch Investment Partners, Inc.

Brad Simpson, CIM, FCSI --- Chief Wealth Strategist, TD Wealth

Sid Vaidya, CFA, CAIA -- U.S. Wealth Investment Strategist, TD Wealth

Glenn Davis, CFA -- Managing Director, TDAM USA

Bryan Lee, CFA -- Vice President & Director, TD Asset Management Inc.

Direction from WAAC

Strategic Positioning

	Asset Class	Underweight		Neutral		Overweight
Fixed Income Modest Underweight	Domestic Gov't Bonds		●			
	Investment Grade Corp Bonds				●	
	Inflation Linked Bonds				●	
	High Yield Bonds		●			
	Global Bonds - Developed	●				
	Global Bonds - Emerging			●		
Equities Modest Overweight	Canadian				●	
	U.S.				●	
	International				●	
	Emerging Markets excluding China			●		
	China			●		
Alternative / Real Assets Modest Overweight	Commercial Mortgages				●	
	Domestic Real Estate			●		
	Global Real Estate				●	
	Infrastructure				●	
Sub-Classes	Gold			●		
	Canadian Dollar vs U.S. Dollar				●	
	U.S. Dollar vs Basket of Currencies			●		
	Cash		●			

Source: TD Wealth Asset Allocation Committee, as of October 21, 2021

WAAC Positioning – Changes

Chinese Equities - Modest Overweight to Neutral

Emerging market equities, particularly China, have struggled in recent months. The difficult market conditions were triggered by the expansion of regulatory intervention in China and concerns about the potential ripple effects of the failed property developer Evergrande Group. With inflation making a strong comeback on a combination of supply chain disruptions and the run-up in certain commodity prices, central banks in many emerging market countries have been forced to respond with higher interest rates.

We believe the lack of visibility around these prevailing headwinds may persist for some time. However, we expect the gradual transition of the Chinese economy to be increasingly driven by technological innovation, and ongoing structural reforms combined with the rising purchasing power of a growing middle class, should provide a relatively positive backdrop over the longer horizon. The Chinese market's significant underperformance relative to U.S. equities may present attractive value entry points longer-term, but in the interim, we believe a moderate de-risking of Chinese equities is prudent.

WAAC Positioning – Current Monitoring

Fixed Income – Modest Underweight

Our modest overweight view to corporate credit is still warranted despite historically tight spreads

Within fixed income, the bond market will likely be subject to volatility from an uneven labor market recovery, increasing inflation expectations, and central bank policy. We believe that a slight overweight position to corporate credit is still warranted given our position in the economic recovery. However, we are conscious that spreads are still trading close to all time lows, hence our modest overweight. Spreads are more inclined to widen from here, due to the economic uncertainty. If this scenario materializes, we will look to reevaluate our credit exposure as long as valuations remain fair.

When exploring additional yield enhancement opportunities and looking to achieve positive all-in real yields, we see some value in high yield and emerging markets debt, although we remain highly selective in this market segment.

With real rates at historically depressed levels, we remain underweight government bonds as they do not provide compelling returns at this time.

Equities – Modest Overweight

We maintain a positive outlook for international equities as economic activity accelerates

In Canada, Financials, the largest component of the S&P/TSX Composite Index, look attractive and should benefit as individuals and businesses borrow more as the economy improves. Additionally, once the regulatory moratorium on dividend increases and share buybacks is lifted, we expect to see banks take advantage, which could further increase shareholder returns. With regards to the Energy sector, major Canadian oil producers are deleveraging quickly, and will likely announce dividend increases and share buybacks against a positive backdrop of high energy prices.

In the U.S., despite stock prices remaining at the high end of historical averages in select sectors, we do not view valuations as excessive given the strength of earnings. Major U.S. companies continue to report strong financial results, despite supply chain disruptions and rising costs potentially compressing margins. As markets have risen, driven by stronger than expected underlying performance, forward price-to-earnings multiples have contracted, making U.S. equities more reasonably valued compared to earlier in the year. Long-term structural trends remain intact and supportive of U.S. markets; however, equity pullbacks in more expensive areas could fuel broader volatility.

In international markets, European business confidence is improving amid increasing vaccination levels, and economic activity continues to accelerate. As economies continue to re-open this should be supportive of improving corporate financial results and lead to better equity returns over time.

Alternatives/Real Assets – Modest Overweight

Canadian real estate office fundamentals continue to show improvement

Canadian real estate office fundamentals have been improving since the start of 2021, as many employers transition to return to office strategies. Additionally leasing activity is being driven by technology tenants, particularly within Vancouver, Toronto, and Ottawa that have shown declining vacancy rates and where high-quality assets are located.

Within global real estate, logistics real estate, lab office (life sciences), multi-unit residential and essential-based retail continue to contribute resilient income while providing capital preservation and growth.

Global infrastructure remains a stable income generator, and with rising fears of inflation, private infrastructure provides the ability to hedge against inflation impacts. We believe the energy transition is the single largest opportunity for growth in private infrastructure, and that this growth over the coming decades will drive outperformance

High-quality commercial mortgages are witnessing strong demand as the relative premium offered versus publicly traded bonds remains accretive. Multi-unit residential continues to produce stable, predictable income streams due to its defensive characteristics, while the pandemic has exacerbated the demand for industrial assets tied to e-commerce, distribution and fulfillment.

Sub-Classes

USD could see support from higher inflation and tapering prospects

We are positive on the strategic prospects for Canadian economic growth and the dollar, versus the U.S. dollar (USD). The combination of vaccine progress, labour market recovery, strengthening commodities, and more aggressive central bank policy, bode well for the Canadian dollar.

Despite some recent weakness in the USD, heightened expectations that the U.S. Federal Reserve may raise rates sooner than previously expected to fend off inflationary pressures should provide support for the dollar. However, increasing central bank divergence could counter this effect. We maintain our neutral outlook.

Gold has recently rallied but is still below its year-to-date high reached in June. Despite inflation fears and concerns over slowing global growth, Gold's lackluster performance in 2021 has been driven by a strong global economic recovery and a general risk on appetite fueled by aggressive stimulus measures. However, fundamentals may be supportive of gold as the economy normalizes in the coming months.

Current Investment Themes

Our Wealth Asset Allocation Committee keeps a running watch list of themes that guide our decision-making. Current themes include:

1. Global equities continue to be underpinned, for the most part, by positive earnings growth and revisions, strong balance sheets, and reasonable valuations. These factors should drive positive market performance over the long-term, although returns are likely to moderate compared to the previous 12 months.

2. Additional factors contributing to our optimistic outlook include: slowing but still above-trend economic growth, the likelihood of a protracted low-rate environment even as central banks embark on gradual policy normalization, improving global vaccination rates, and declining COVID-19 cases.

3. From a risk perspective, more permanent inflationary pressures caused by supply chain disruptions and labour market shortages, future pandemic waves, central banks becoming increasingly more hawkish, waning fiscal stimulus, and decelerating economic momentum, could put pressure on risk assets and drive volatility.

4. While we maintain an overall modest underweight to fixed income, due to low real returns, we believe fixed income exposure within portfolios remains important. Bonds can provide investors with consistent income, diversification benefits and insulate portfolios during periods of elevated volatility.

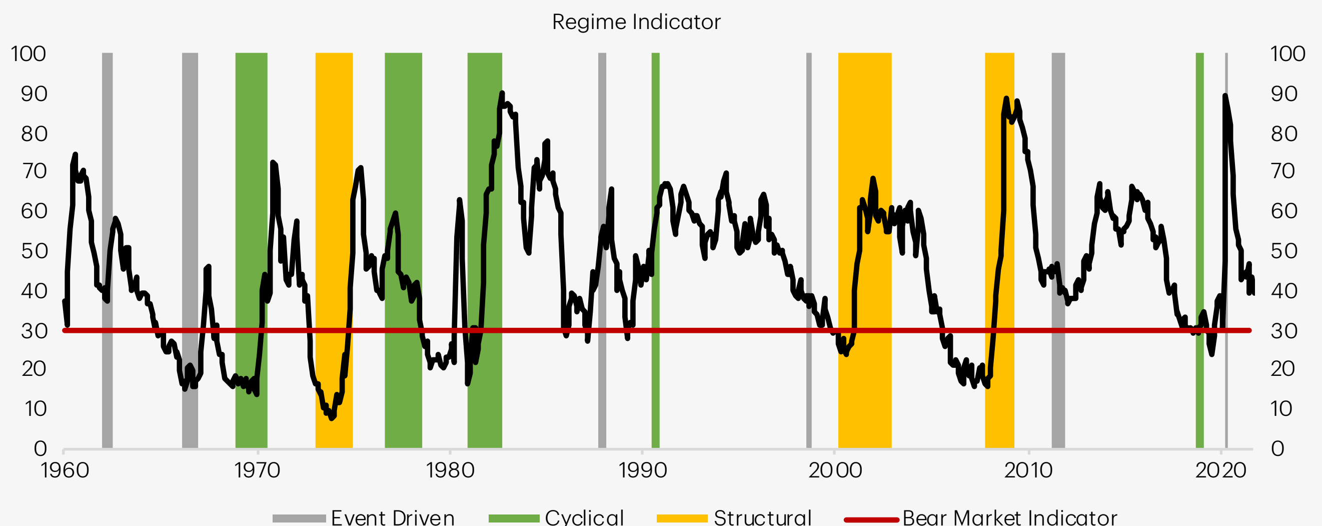
5. Where appropriate, we believe that alternative investments can act as a key portfolio complement, helping to provide investors with a yield enhancement over traditional fixed income assets. Alternative assets, such as mortgages, infrastructure and real estate can also act as a hedge against inflationary risks.

Regime Score

Our regime work continues to point to a good, not great investment environment. The indicator score has dropped to 39, which we still consider the "fair value" zone. Overall, while economic growth indicators are slowing, they are still above trend and we believe markets continue to exhibit healthy long-term fundamentals.

The higher the score, the more bullish, and the lower the more bearish. Most of the previous bear markets are captured when this indicator is falling below 30. □

Figure 1: Regime score of 39 indicates 'Fair Value'



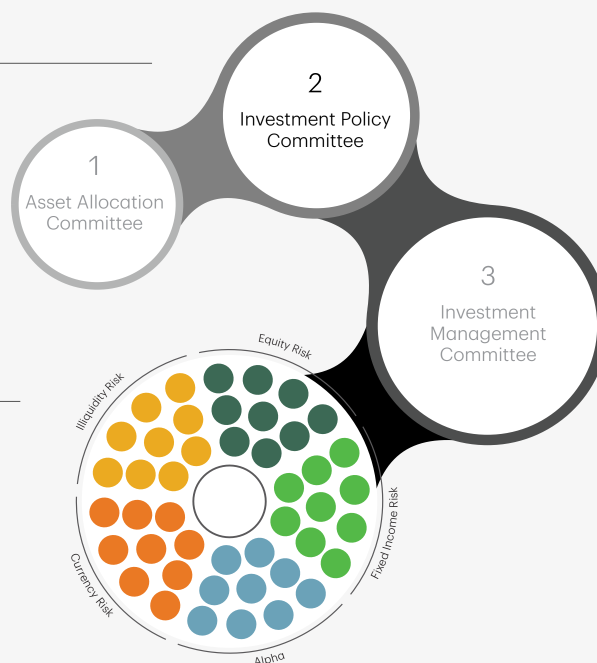
Note: The indicator is scaled form 0 to 100. The higher the more bullish, the lower the more bearish. Most of the previous bear markets are captured when this indicator is falling below 30.
Source: TD Wealth Asset Allocation Committee and Refinitiv Datastream, as of October 21, 2021

Wealth Investment Policy Committee

The Wealth Investment Policy Committee is composed of a diverse group of TD investment professionals. WIPC's mandate is to interpret WAAC views and set general asset-class weights for each investor profile.

Interprets WAAC views and sets general investor profile asset class weights.

Utilizing risk factors to manage exposures, we build and manage portfolios that blend the best of traditional and alternative asset classes.



Committee members:

Brad Simpson, CIM, FCSI .... Chief Wealth Strategist, TD Wealth (Chair)

Michael Craig, CFA .... Managing Director, Head of the Asset Allocation & Derivatives, TDAM

Anna Castro, CFA .... VP & Director, TDAM

Jafer Naqvi .... VP & Director, TDAM

Christopher Lo, CFA .... Head of Managed Investments, TD Wealth

Alice Lim, MBA .... Head of Product Governance & Marketing, TD Wealth

Van Hoang, FRM, CFA .... Senior Macro Strategist, TD Wealth

We employ a greater spectrum of asset classes including: fixed income, equity and real assets

Strategic and dynamic asset-class weights by investor profile

Asset Class	Balanced Income		Balanced		Balanced Growth		Growth		Aggressive Growth	
	Strat	Dyn	Strat	Dyn	Strat	Dyn	Strat	Dyn	Strat	Dyn
Cash	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Fixed Income	63.0%	56.0%	48.0%	41.0%	33.0%	26.0%	23.0%	16.0%	0.0%	0.0%
Government	32.0%	27.0%	24.0%	19.0%	17.0%	11.0%	11.0%	5.0%	0.0%	0.0%
Corporate	31.0%	29.0%	24.0%	22.0%	16.0%	15.0%	12.0%	11.0%	0.0%	0.0%
Equity	35.0%	42.0%	50.0%	57.0%	65.0%	72.0%	75.0%	82.0%	98.0%	98.0%
Canadian	11.0%	13.0%	15.0%	17.0%	20.0%	22.0%	23.0%	25.0%	29.0%	29.0%
U.S.	14.0%	17.0%	20.0%	23.0%	26.0%	29.0%	30.0%	33.0%	40.0%	40.0%
International	7.0%	9.0%	10.0%	12.0%	13.0%	15.0%	15.0%	17.0%	19.0%	19.0%
Emerging Markets	3.0%	3.0%	5.0%	5.0%	6.0%	6.0%	7.0%	7.0%	10.0%	10.0%

Strat: Strategic, Dyn: Dynamic. Source: Wealth Investment Policy Committee, as of October 21, 2021.

Expanded Strategic and dynamic asset-class weights by investor profile

Asset Class	Balanced Income		Balanced		Balanced Growth		Growth		Aggressive Growth	
	Strat.	Dyn.	Strat.	Dyn.	Strat.	Dyn.	Strat.	Dyn.	Strat.	Dyn.
Cash	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Fixed Income	56.0%	49.0%	41.0%	34.0%	26.0%	19.0%	16.0%	9.0%	0.0%	0.0%
Domestic Gov't Bonds	20.0%	18.0%	14.0%	12.0%	9.0%	5.0%	5.0%	1.0%	0.0%	0.0%
Invest. Grade Corp Bonds	19.0%	19.0%	14.0%	14.0%	9.0%	9.0%	6.0%	6.0%	0.0%	0.0%
Inflation Linked Bonds	4.0%	5.0%	3.0%	4.0%	2.0%	3.0%	1.0%	1.0%	0.0%	0.0%
High Yield Bonds	4.0%	3.0%	3.0%	2.0%	2.0%	1.0%	1.0%	0.0%	0.0%	0.0%
Global Bonds - Developed	6.0%	1.0%	5.0%	0.0%	3.0%	0.0%	2.0%	0.0%	0.0%	0.0%
Global Bonds - Emerging	3.0%	3.0%	2.0%	2.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%
Real Assets	10.0%	10.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	13.0%	13.0%
Mortgages/Private Debt	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	0.0%	0.0%
Real Estate/Infrastrucutre	3.0%	3.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	13.0%	13.0%
Equity	32.0%	39.0%	42.0%	49.0%	57.0%	64.0%	67.0%	74.0%	85.0%	85.0%
Canadian	10.0%	12.0%	12.0%	14.0%	17.0%	19.0%	20.0%	22.0%	25.0%	25.0%
U.S.	13.0%	16.0%	17.0%	20.0%	23.0%	26.0%	27.0%	30.0%	35.0%	35.0%
International	6.0%	8.0%	8.0%	10.0%	11.0%	13.0%	13.0%	15.0%	15.0%	15.0%
Emerging Markets ex. China	3.0%	3.0%	5.0%	5.0%	6.0%	6.0%	7.0%	7.0%	10.0%	10.0%
Fixed Income	65.0%	58.0%	50.0%	43.0%	35.0%	28.0%	25.0%	18.0%	2.0%	2.0%
Equity	35.0%	42.0%	50.0%	57.0%	65.0%	72.0%	75.0%	82.0%	98.0%	98.0%

Strat: Strategic, Dyn: Dynamic. Source: Wealth Investment Policy Committee, as of October 21, 2021.

Dynamic positioning by risk factor weights

Assets	Positioning	Fixed Income Factor	Equity Risk Factor	Currency Risk Factor	Illiquidity Risk Factor	Alpha
Factor Positioning		Underweight	Overweight	Underweight	Overweight	Dynamic
Cash	Overweight	●				●
Fixed Income	Underweight					
Domestic Government Bonds	Underweight	●				●
Investment Grade Corp. Bonds	Overweight	●	●	●		●
Inflation Linked Bonds	Overweight	●		●		●
High Yield Bonds	Underweight	●	●	●	●	●
Global Bonds - Developed	Underweight	●		●		●
Global Bonds - Emerging	Neutral	●		●	●	●
Equity	Overweight					
Canadian	Overweight		●			●
U.S.	Overweight		●	●		●
International	Overweight		●	●		●
Emerging Markets ex China	Overweight		●	●		●
China	Overweight		●	●		●
Real Assets	Overweight					
Mortgages/Private Debt	Overweight	●	●	●	●	●
Real Estate/Infrastructure	Neutral	●	●	●	●	●

Source: Wealth Investment Policy Committee, as of October 21, 2021.

Economic Outlook

Questions? We've Got Answers

TD Economics

Similar to prior quarters, we have again posed and answered the questions that we believe are most relevant for TD Wealth clients. At TD Economics, we have had many of the same conversations with institutional clients.

What does "peak growth" mean for the economic cycle?

• For much of the G7, the reopening phase this past summer will mark the fastest point of the economic recovery. This will then transition into slower but less volatile growth, with labor markets continuing to normalize through 2022.

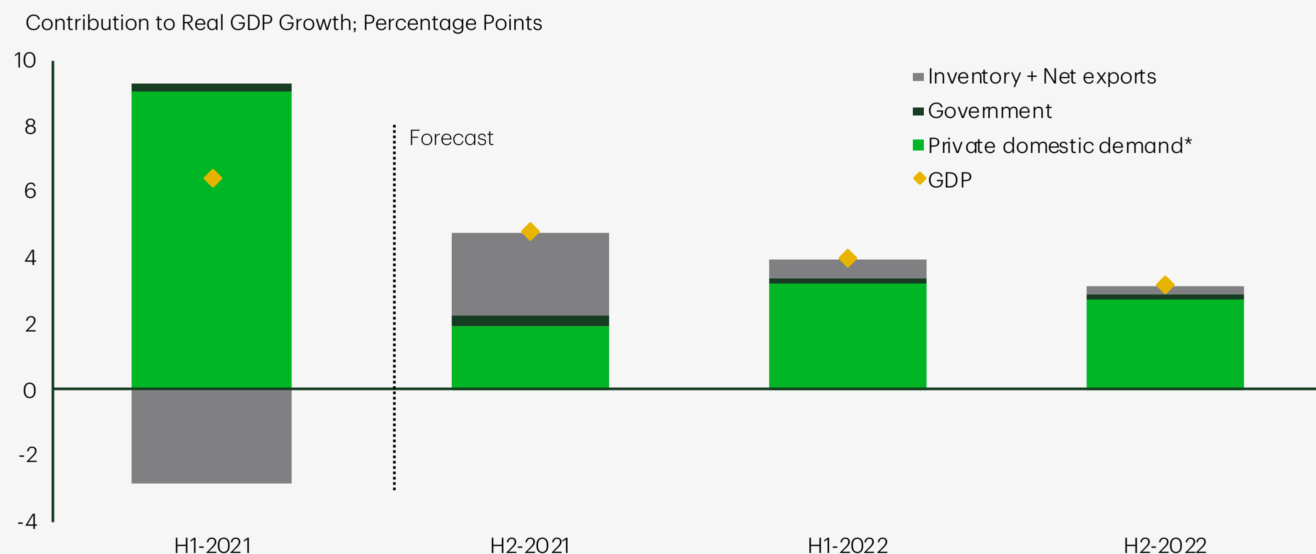
• Apart from the initial re-opening induced growth spurt in the third quarter of 2020, the "peak" pace of U.S. GDP was likely in the second quarter of this year at 6.5% annualized. The combination of two rounds of economic impact payments to households in the first half of the year, businesses re-opening, and rising vaccinations unleashed a deluge of pent-up demand (Figure 1). Much of the spending was on durable goods. Due to the big-ticket and longer life span of these purchases, the spending patterns tend to be lumpy, and we expect a decline in durable goods to weigh on overall spending in the second half of the year. Services spending, which remains well below its pre-recession level, is expected to continue to make progress, however, the recent rise in COVID-19 cases is likely to slow that recovery relative to prior expectations.

• Slower economic growth does not mean the recovery is over, but that it is leaving the initial "spurt phase" that was simply unsustainable. Recently, pandemic-related restraints have held back labor force participation and led to shortages for many goods, making it seem like the economy is running up against resource constraints. However, low inventory-to-sales ratios suggest upside risk to production growth once these constraints are alleviated. At the same time, record-high job openings suggest a strong foundation for ongoing employment growth. The recovery stage of this cycle has not been marked by employers being hesitant to hire, but rather by employers complaining there are not enough people to hire.

• In Canada, the economic recovery is still very much underway. After contracting in the second quarter, reopening measures will give way to stronger spending in the latter half of the year. We expect this momentum to carry into 2022, with growth peaking early next year.

• Even with Canada's peak growth yet to come, the level of economic output will be below its productive capacity, notwithstanding temporary supply constraints. Indeed, we anticipate the economy will

Figure 1: : U.S. Domestic Demand to Slow, Will Still Support Solid Economic Growth



*Personal consumption expenditures and fixed investment (including residential). Source: TD Economics Forecast as of August 2021.

remain in excess supply territory until the second half of 2022, when actual output will finally catch up to the economy's potential. This indicates the economy is still likely in the early stage of the business cycle.

Does elevated inflation still appear 'temporary'?

• A confluence of forces has combined to push inflation to heights not seen in years. As measured by the consumer price index (CPI), inflation rose to 5.4% year-on-year (y/y) in June, although it has eased slightly to 5.3% as of August. This is the highest rate of headline consumer price growth since July 2008. As it was then, rapidly rising energy prices explain some of the increase in the headline rate. Unlike that earlier period, however, core inflation (excluding food and energy) has also picked up noticeably. Core CPI inflation hit 4.5% in June, the highest rate in almost 30 years, before edging down to 4.0% in August. On a month-on-month (m/m) basis, core price growth slowed to 0.1% in August, down from an average of 0.8% in the spring.

• Much of the acceleration in inflation in 2021 is associated with supply chain issues, shortages or re-opening the economy, and this suggests a transitory nature. Notably, "things associated with travel" saw big price increases in the spring, in line with Americans hitting the road again after a year of staying close to home (Figure 2). Demand for travel-related goods and services outstripped the industry's ability to ramp up. In addition, service providers are trying to make up for steep pandemic price drops. For instance, airfares, which fell nearly 30% from January to May of last year, are still well below pre-pandemic levels, even though monthly price gains have been as high as 10% (in April of this year). Rental car prices had also risen swiftly due to rental car companies having sold off their fleets during the initial lockdown and finding themselves short on supply as demand has rushed back. Then there are unique industry specific factors, like semiconductor shortages limiting vehicle production and pushing up prices for both new and used cars.

• After accounting for over two-thirds of the monthly increases in core inflation from March to June, these "travel-related" price pressures have cooled. Other categories are showing signs of heating up, albeit more modestly. Medical care inflation had been decelerating sharply after big increases in 2019, but shows early signs of picking up again. Excluding hotels, shelter inflation decelerated earlier in the pandemic but has also firmed up. This portion of inflation is persistent, and carries a large weight in the consumption basket. In turn, it will likely keep inflation from fully mean reverting in the coming quarters.

• While we expect more moderate m/m increases in consumer prices going forward, base effects will likely result in a move higher in the y/y rate of core inflation in the final months of this year and early next. Inflation is expected to remain high enough to persuade the Fed to begin tapering asset purchases later this year and raise rates towards the end of next year.

Figure 2: U.S. Travel-related Prices Surged This Spring

*Travel includes ex-fuel transportation goods and services, plus lodging away from home. Source: BLS, TD Economics.

• Like the U.S., inflation is elevated in Canada. On a year-over-year basis, inflation in August was 4.1%, partly due to base-year effects, and partly as a result of the rising price pressures. Indeed, the 3-month moving average of 0.4% m/m in August (Figure 3) was two times the pace of inflation in the pre-pandemic period.

• Canadian inflation should trend higher as pent up demand is unleashed with a lag due to the lingering public health measures north of the border. As in the U.S., this will most likely be evident in high-touch services industries that cannot boost operations quickly enough to meet demand. Canada is also not immune to supply chain disruptions, particularly the global semiconductor shortage. This should keep the price of vehicles and other electronic goods elevated for some time.

How will central banks react to the latest economic developments?

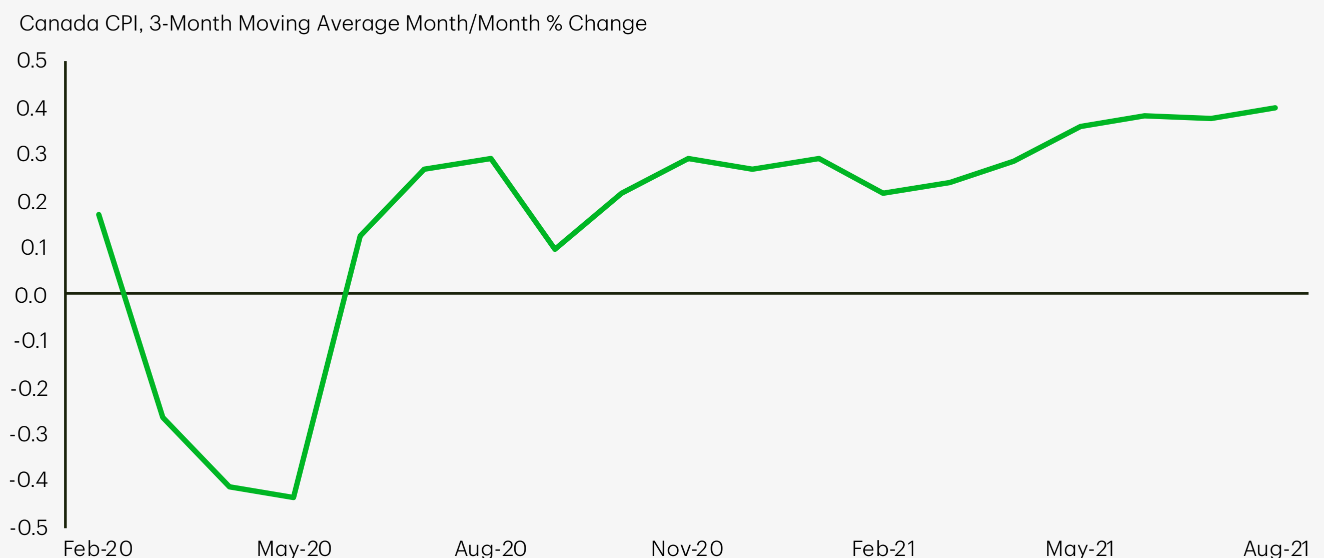
• In spite of recent weaker than expected economic data, the Federal Reserve (Fed) and the Bank of Canada (BoC) have maintained an optimistic view of the economic outlook. The expectation remains that the economies of the U.S. and Canada will be fully recovered by the second half of 2022 – i.e. both economic and labor market slack.

• With confidence in ongoing growth, we have seen members of the Federal Reserve increase their openness to tighter monetary policy. Members have pulled forward the expected start of the rate hiking cycle, with the median voter expecting rate hikes in 2022. At the same time, the Fed is planning to taper its Quantitative Easing (QE) program from the current pace of $80 billion and $40 billion a month in purchases of U.S. Treasuries and Mortgage-Backed Securities, respectively. We expect this to be announced in November.

• The Bank of Canada has been quicker to remove monetary accommodation when necessary. In addition to preparing markets that it will likely lift interest rates in the second half of 2022, it has steadily reduced the size of weekly asset purchases. In its July meeting, the BoC once again cut its purchases of Government of Canada debt to $2 billion a week. We expect the BoC to taper once again in October, before ending all net new purchases in early 2022.

• With both the Fed and BoC poised to tighten policy in the coming months through an adjustment to their QE programs, and with the start of the rate hiking cycle coming within the next 15 months, government bond yields remain unjustifiably low. Both the U.S. and Canada 10-year government bond yields are hovering around 1.5% to 1.6%. With inflation running between 3% and 4%, this pushed long maturity real interest rates to their lowest level in over 40 years. Even with inflation expected to ease towards 2%, the current level of interest rates is not sustainable. If yields were to reflect the current economic fundamentals, we would likely see 10-year yields in the U.S. and Canada rise to 2%. As the year moves along and investors realize the ability of the economy to continue to grow, we expect this economic security to push yields higher.

Figure 3: Price Pressures Rising in Canada



Source: Statistics Canada, TD Economics. Last observation: August 2021.

What are the potential economic and financial impacts of another Liberal minority government in Canada?

• The immediate financial market impact of the Liberal minority victory was negligible. Canadians know what to expect from a Liberal minority government, and this outcome – which was expected by investors – provides a high degree of continuity.

• Fiscal policy will likely remain loose under this government. The Liberal platform has committed to around $80 billion in new spending initiatives over five years, offset by around $26 billion in new revenue measures. This spending is on top of around $100 billion in additional outlays committed to in its spring 2021 budget. Based on some back of the envelope calculations, the new platform spending could increase Canada's economic growth rate by 0.2-0.5 percentage points next year relative to the status quo.

• Some of the spending commitments made by the Liberals include: an extension of Covid-19 support programs; increased health transfers; and initiatives to address housing affordability. Policies on climate change and the promotion of clean technology are also noteworthy as areas of increased spending.

• As for the housing platform, the Liberals plans are expected to have some, though only moderate, impact on prices. The Liberal Party's platform is a multi-layered one. It includes proposals that put more money in the pockets of homebuyers; a tax on properties held for less than a year; and a temporary ban on foreign purchases. Overall, there could be a negative impact on affordability in the near term, and potentially larger mortgages down the road, creating some risk to the financial system.

• In terms of overall revenue measures, the Liberal party proposed new levies on large financial institutions, which are expected to account for about 40% of the total pie. Much of the remainder is attributable to expanding the CRA's revenue-collecting ability.

• Despite the platform commitments, the near-term federal deficit profile may not change significantly given the likelihood that this year's revenue performance is likely to come out on the high side of expectations owing to stronger-than-expected growth in nominal GDP. Recall that last year's budget projected this year's shortfall at $154.7 billion.

• Longer term, balanced budgets are not a priority for the government. As before, the Liberals will have to seek compromise to enact new legislation, given that they will need support from opposition parties to fulfill their commitments. This dynamic could generate higher spending and deficit outcomes.□

Figure 4: TD Economics global forecasts

Economic Indicators: G7 & Europe				
		Forecast		
	2020	2021F	2022F	2023F
Real GDP (annual per cent change)				
G7 (30.1%)*	**-5.0**	**5.5**	**4.1**	**2.0**
U.S.	-3.4	5.6	4.1	2.6
Japan	-4.7	2.4	2.5	0.7
Euro Area	-6.5	5.0	4.0	1.6
Germany	-4.9	3.0	4.2	1.3
France	-8.0	6.2	3.5	1.7
Italy	-8.9	5.8	3.9	1.3
United Kingdom	-9.8	6.7	5.9	2.1
Canada	-5.3	4.9	4.4	2.8
Consumer Price Index (annual per cent change)				
G7	**0.8**	**1.9**	**2.0**	**1.6**
U.S.	1.2	4.3	3.0	2.2
Japan	0.0	-0.2	0.5	0.5
Euro Area	0.3	2.2	1.6	1.4
Germany	0.4	2.8	1.7	1.5
France	0.5	1.7	1.4	1.4
Italy	-0.1	1.6	1.1	1.3
United Kingdom	0.9	2.2	2.6	0.0
Canada	0.7	3.1	2.9	2.2
Unemployment Rate (per cent annual averages)				
U.S.	8.1	5.6	4.0	3.4
Japan	2.8	2.9	2.9	2.5
Euro Area	7.9	7.9	7.7	7.5
Germany	5.9	5.7	5.5	5.1
France	8.0	8.0	8.2	8.1
Italy	9.3	9.7	9.6	9.1
United Kingdom	4.4	4.8	4.6	4.1
Canada	9.6	7.5	6.1	5.6

*Share of 2018 world gross domestic product (GDP) at PPP. Forecast as at September 2021. Source: National statistics agencies, TD Economics.

Asset Class Analysis

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Quarter in Review

In Transition

Financial markets ended Q3 essentially unchanged as investor sentiment and key macroeconomic factors weighed on performance and market outlook. After a few quarters of aggressive growth and earnings surprises that have powered the recovery well beyond pre-pandemic levels, expectations for growth and earnings have begun to decelerate. Widespread demand, supply, and labour shocks continue to disrupt global supply chains, causing inflationary pressures to persist well beyond the levels policy makers and market participants anticipated when higher inflation emerged early in the year. At the same time, simultaneous energy supply crunches worldwide have caused prices of coal, natural gas, electricity, and oil to soar.

As a result of inflation fears, key central banks initiated monetary tightening. The U.S. Federal Reserve (Fed) adopted a more hawkish plan to trim its asset purchase program and raise interest rates once tapering is completed. The shift wasn't a surprise but the pace of it was. Equity markets experienced a pullback in late September and early October following the Fed's policy shift. Fixed income markets were mostly flat for the quarter but incurred heavy losses as tapering and inflationary fears caused developed government bond yields to spike and yield curves to steepen, reversing the flattening trend from Q2.

Risk Factor Diversification

Asset allocation is the principal driver of portfolio performance. In building strategic asset mixes, we focus on risk-factor diversification and the underlying risk characteristics of asset classes — not asset class labels. Asset classes have a common set of macroeconomic phenomena or risk factors that drive performance. Key macroeconomic risk factors include economic growth, interest rates, credit spread, inflation, liquidity and currency.

Because of these risk factors, each asset class has environmental biases that govern how it performs under a variety of market scenarios. Some asset classes (equities, corporate bonds, commodities, emerging market debt) perform well in rising-growth environments, while others (namely, government bonds) do well in the opposite environment. Nominal government bonds perform well under disinflationary conditions while inflation-linked bonds benefit from inflationary environments. This framework of risk factors and environmental biases forms an intuitive four-quadrant matrix that captures underlying exposures and shows how key asset classes have performed historically over market cycles. Each of the four scenarios have occurred about a quarter of the time based on historical data.

Factor diversification targets exposures that provide a return premium over time while minimizing exposures to uncompensated factors, limiting exposure to any single factor and reducing the impact of factor cyclicality. All factors go through unique cycles and prolonged periods of underperformance. Take, for example, the value factor: it has lagged for over a decade, underperforming by well over 30% in 2020 alone, while the growth factor rallied. By focusing on factor diversification, we can build robust portfolios that generate more stable return steams, which help protect capital when we need it most.

As with any investment, there are no guarantees. That's why it's crucial to start with a well-constructed, well-diversified asset mix, designed to match the unique circumstances and long-term goals of each investor and to help them work towards achieving those goals.

Macro Environment Perspective

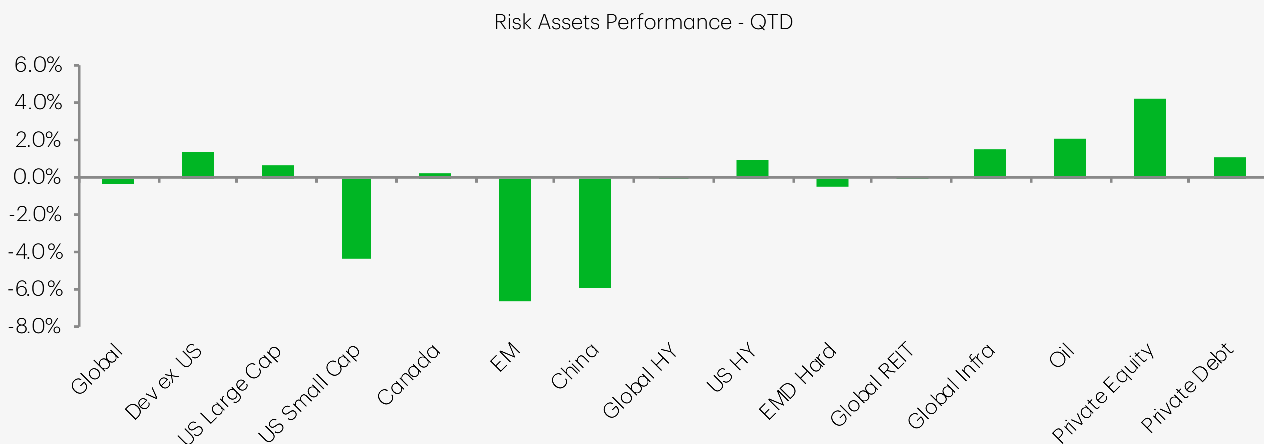
If we look at Q3 through a macroeconomic perspective with four key environments (Figure 1)—rising and falling inflation; rising and falling growth—there were no clear winners except for rising inflation assets such as commodities and inflation-linked bonds (IL bonds). Performance for asset classes that benefit from economic recovery was muted in Q3 as investors grappled with slowing economic growth and rising inflation risk (Figure 2). While expectations for inflation remain subdued, actual inflation and inflationary concerns reached a crescendo in Q3 as supply shocks that were deemed transitory became more entrenched. Inflation risk in large part spurred the Fed (and other central banks) to hasten its monetary tightening timeline in September and move rate-hike expectations ahead for the second time since June.

Figure 1: Asset Class Performance by Macroeconomic Environment

Economic Environment	Rising Inflation						Falling Inflation					
			MTD	QTD	YTD	1 Year			MTD	QTD	YTD	1 Year
Rising Growth	Commodities	GSCI	6.0%	5.2%	38.3%	58.3%	Equities	Global	-3.6%	-0.4%	13.0%	27.4%
		Energy	11.6%	9.7%	62.8%	90.3%		US	-4.7%	0.6%	15.9%	30.0%
		Oil	9.5%	2.1%	54.6%	86.5%		Canada	-2.2%	0.2%	17.5%	28.0%
		Copper	-6.2%	-4.9%	14.9%	33.4%		EAFE	-1.3%	1.3%	14.2%	27.2%
		Agriculture	0.8%	-1.1%	17.8%	40.4%		EM ex China	-3.4%	-2.0%	8.8%	36.9%
		Ind. Metals	-2.0%	1.6%	21.5%	38.3%		China	1.3%	-6.0%	-5.0%	8.0%
								US Small Cap	-2.9%	-4.4%	12.4%	47.7%
								Global REIT	-5.5%	1.0%	23.0%	37.2%
								Global Infra	-1.3%	1.5%	7.0%	23.0%
	Emerging Market Debt	Hard	-2.0%	-0.5%	-1.5%	3.9%	Corporate Bonds	Global IG	-0.9%	0.1%	-0.8%	1.9%
		Local	-3.4%	-3.1%	-6.2%	2.9%		Global HY	-0.7%	0.1%	2.9%	9.9%
								Private Debt	0.6%	1.1%	4.4%	8.4%
Falling Growth	Inflation-Linked Gov't Bonds	Global	-1.6%	2.1%	2.3%	4.1%	Nominal Gov't Bonds	Global	-1.2%	0.0%	-2.4%	-2.1%
		US	-0.7%	1.8%	3.5%	5.2%		US	-1.1%	0.1%	-2.5%	-3.3%
		UK	-4.2%	2.3%	-0.7%	0.5%		Eurozone	-1.2%	0.0%	-2.9%	-1.7%
		Canada	-1.5%	-0.3%	-4.3%	-2.5%		Japan	-0.1%	0.5%	-2.4%	-4.0%
								Canada	-1.5%	-0.6%	-4.5%	-4.3%

Note: All returns are in local currency unless indicated otherwise. Source: Bloomberg Finance LP as of September 30, 2021.

Figure 2: Performance of Risk Assets



Source: Bloomberg Finance LP as of September 30, 2021

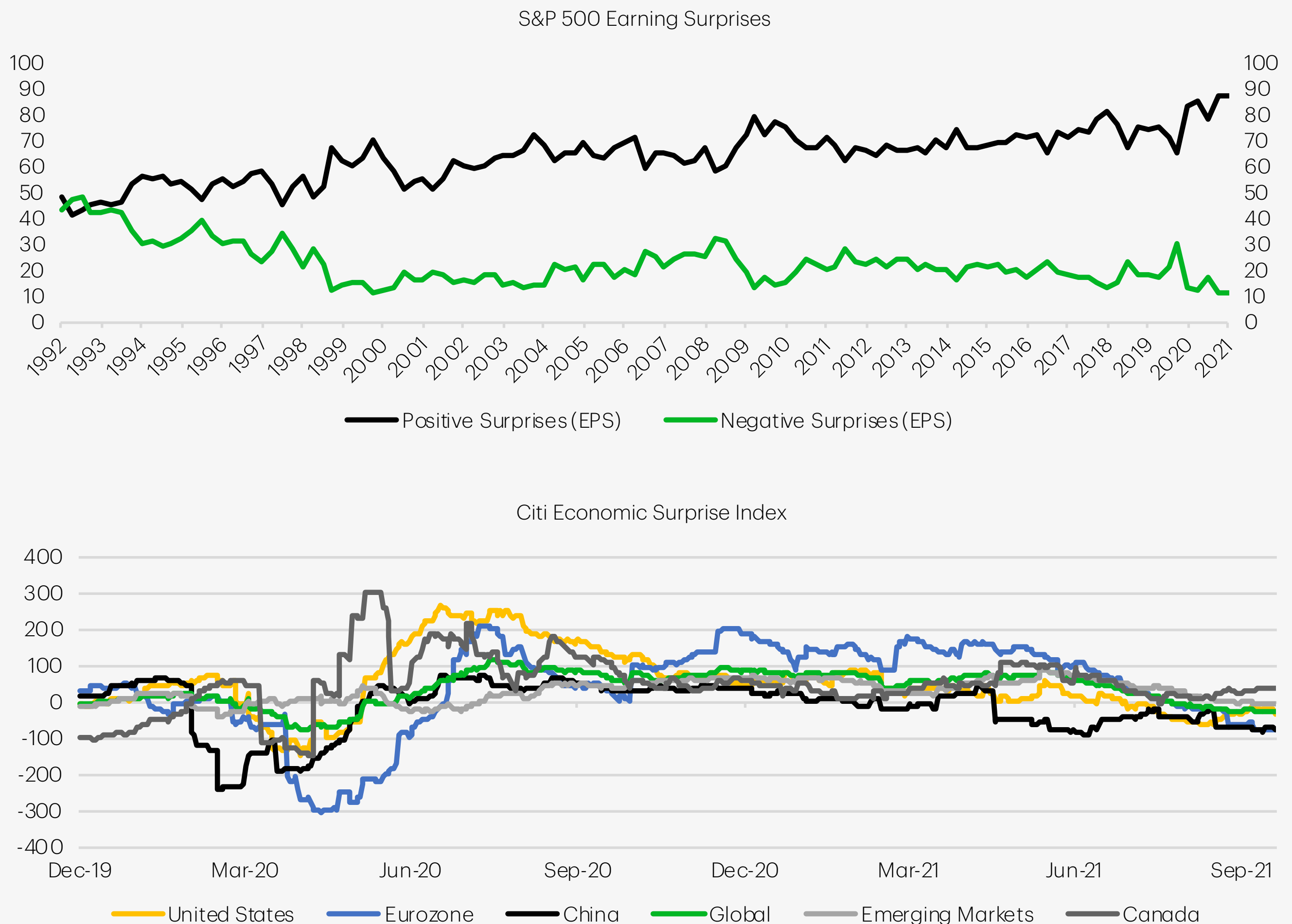
In a rising inflation environment, coupled with deteriorating economic growth (a classic stagflation scenario), inflation-linked bonds outperformed as expected. Commodities also delivered high single-digit returns, benefiting from strong demand and intractable supply constraints.

Inflation expectations were a modest contributor to returns for inflation-linked bonds as markets continue to discount inflation as a transitory problem despite evidence of surging price pressures throughout the economy. Real yields weren't a factor in performance for IL bonds since they ended the quarter flat following sharp increases in August and September. At the same time, falling growth assets, particularly nominal government bonds, were flat for the quarter after incurring losses in August and September as tapering loomed closer. A flat rates market also held back corporate bond performance as U.S. credit spreads widened modestly. Similarly, equities were flat for the quarter after a strong Q2 as emerging risks weighed on appetite for growth assets. The following sections summarize asset-class performance through our four-quadrant perspective.

Rising Growth & Falling Inflation Assets

The rally in equities ended in late Q3 after a strong H1 2021. Global equities fell -0.4% due to broad weakness from U.S. (0.6%) and Canadian stocks (0.2%) as fears about a slowdown in growth and quicker monetary tightening drove a selloff in stocks at the end of the quarter. While U.S. stocks continued to produce strong corporate earnings growth, the outlook going forward has moderated. Realized economic growth has also moved in line with or below expectations (Figure 3). Developed markets outside the U.S. delivered a modest 1.3% return, indicating that moderating growth is global. Emerging markets posted sizable losses, largely due to the selloff in Chinese equities as regulatory crackdowns and debt worries moved to the forefront.

Figure 3: Earnings and Economic Growth Surprises



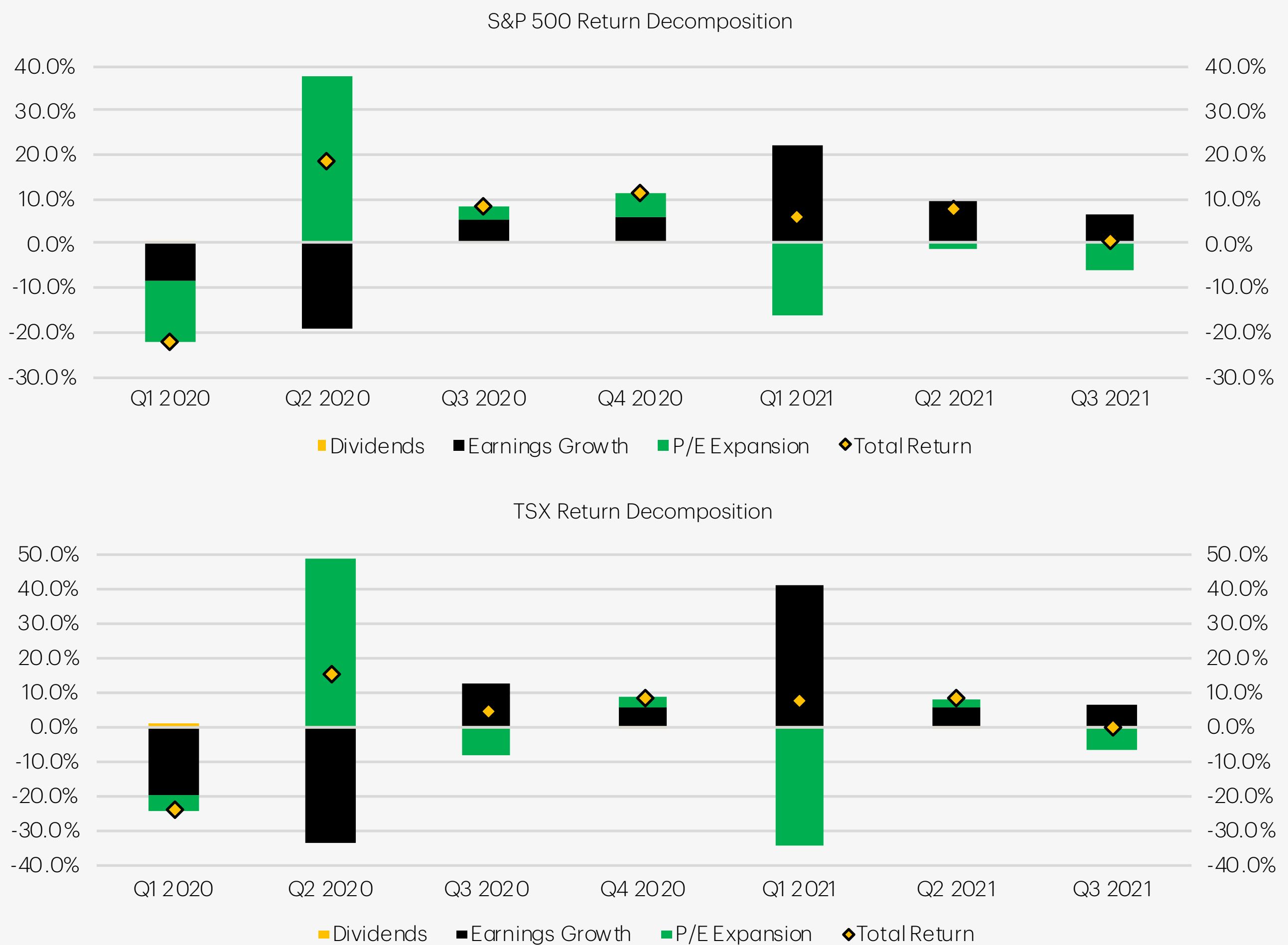
Source: Bloomberg Finance LP as of September 30, 2021

Similar to last quarter, earnings growth continues to be the main driver of U.S. equity returns in Q3 (Figure 4) even though many firms adopted a more cautious outlook in light of rising cost pressures and possible profit margin compressions. Unlike Q2, price-earnings (P/E) multiples contracted substantially in the quarter and limited performance, which is why overall U.S. equity performance was flat. Earnings growth remained strong in Q3 and was the main driver of U.S. equities performance year to date, consistent with the recovery story. Moreover, after outperforming earlier in the economic recovery as part of the "junk rally", small-cap stocks continued to underperform in Q3. Investors shifted toward larger cap stocks as economic growth prospects dimmed. Nonetheless, over the past 12 months, U.S. small-cap stocks have outperformed U.S. large caps by almost 20%.

Unlike last quarter, there was greater dispersion in performance across U.S. equities in Q3, with single-digit gains and losses across key sectors (Figure 5). Financials was the top performer (up 2.3%) after lagging over the past few quarters as a flattening yield curve acted as a headwind. Communications, technology, health care, and utilities stocks also outperformed as investors shifted to higher quality, more defensive sectors amid rising volatility. Conversely, sectors that are more sensitive to the economic cycle, such as industrials (down 4.5%), materials (down 3.9%), and energy (down 2.8%) underperformed in Q3 as economic conditions continued to weaken.

Financials were boosted by rising yields and a steeper yield curve, which bodes well for their lending margins. Health care stocks were bolstered by the likelihood of booster shots. Conversely, industrials were hit by the slowdown in growth and the failure to pass the US$1 trillion (tn) infrastructure bill. Technology stocks underperformed toward the end of the quarter as yields surged but they managed to eke out a positive return as investors sought refuge in higher quality companies. All sectors suffered losses during the September pullback except for energy, which rallied due to a continuing supply crunch.

Figure 4: Return Decomposition of S&P 500 and S&P/TSX Composite



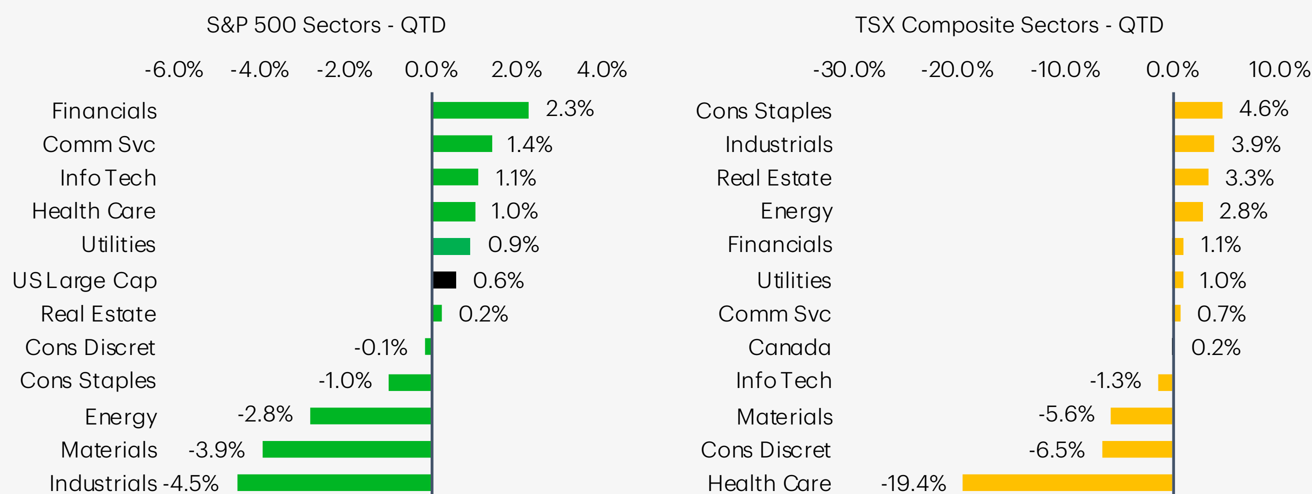
Source: Bloomberg Finance LP as of September 30, 2021

Canadian stocks were flat in Q3, despite the strong rally in commodities, as economic growth came in much weaker than expected after a significant downward revision for Q2 that showed a contraction. The S&P/TSX Composite Index gained 0.2%, led by consumer staples, industrials, real estate, and energy, while health care, consumer discretionary, and materials lagged (Figure 5). Consumer staples led the rally with gains of 4.6% as investors rotated back to defensive sectors. Gains in the sector were led by major grocers and gas retailers. In terms of weighting, the index was led by the 3.9% and 2.8% gains from the industrials and energy sectors. Energy continued to generate strong returns as natural gas and crude rallied in Q3 on the back of robust demand and supply constraints. Similar to last quarter, health care remains the worst performer in Q3, with another double-digit decline, due to plummeting cannabis stocks, although the entire sector only accounts for 1.2% of the broad index. Materials was another laggard, largely due to weakness from gold stocks. Overall, like the first half of the year, Q3 performance was led by strong earnings growth but offset by contracting P/E multiples (Figure 4). Since earnings growth has rebounded multiples contraction has been a drag on performance year to date.

Similar to the U.S. and Canada, developed markets outside North America were flat in Q3, as risk appetite continued to wane. EAFE equities rose 1.3% (led by Japanese stocks) amid rising inflation and slowing growth. Energy and technology were the main outperformers amid a rally in commodities and semiconductor shortages. Conversely, consumer discretionary was a key underperformer due to concerns that a clampdown on income inequity will hurt the luxury goods sector. Business confidence continued to be bullish, with manufacturing and service PMIs weaker than Q2 but still near all-time highs. Eurozone composite PMIs ended the quarter at 56, which is well above expansion mode. U.K. stocks held up with a modest 2.0% return: energy stocks benefited from the commodities rally, while financial stocks benefited from rising yields and a steeper yield curve as the Bank of England adopted a more hawkish monetary stance to combat rising inflation risk. Japanese stocks--after underperforming in Q2 and much of Q3 due to Covid-19 outbreaks and the slow vaccine rollout--rebounded in response to rapid progress on the vaccination front and optimism toward a new government. Japanese composite PMIs remained in contractionary territory at 47.9 in September, but up from 45.5 in August amid optimism for a continuation of accommodative policies.

Emerging-market (EM) stocks continued to underperform in Q3 with losses of 6.6% as Covid-19 remains a present danger, coupled with supply chain disruptions and the risk of rising inflation. This underperformance was led by a sharp selloff in Chinese equities, which fell 6.0% during the quarter. The Chinese government continued its effort to rein in credit growth and tighten policy in a bid to tamp down excesses in the market. On top of that, a funding crisis erupted in late Q3 when a major property developer, Evergrande, with over US$300bn in liabilities, a big chunk of that in U.S. dollar interest-bearing debt, came to the brink of default. This debt crisis evoked fears of contagion across China and worldwide.

Figure 5: Equity Performance by Sector

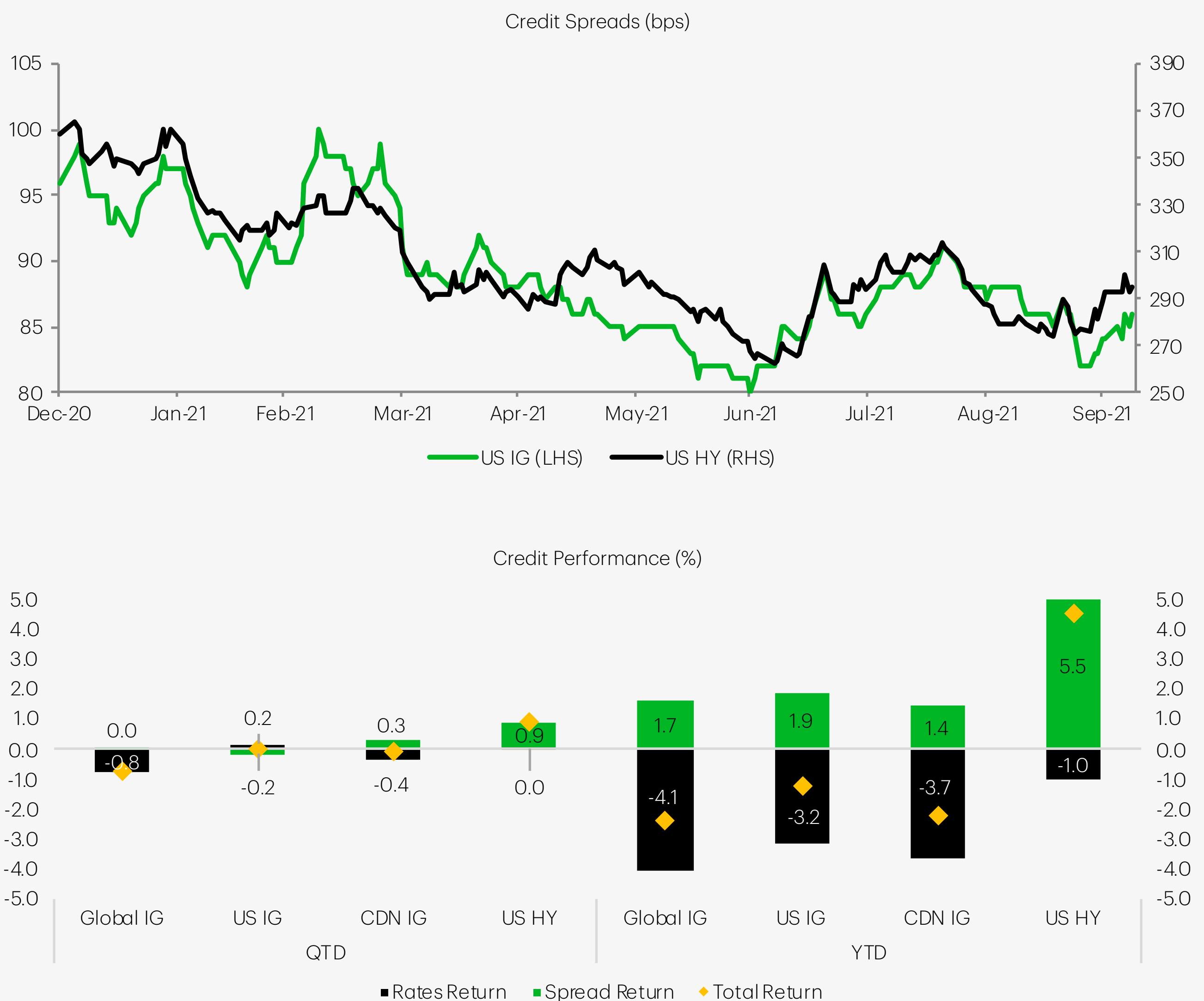


Source: Bloomberg Finance LP as of Sept 30, 2021

EM outside China outperformed Chinese equities but faced headwinds from a stronger U.S. dollar at the end of Q2 and Q3, despite the rally in commodities. Brazil was a key underperformer with double-digit losses as escalating inflation pressures again forced the central bank to hike interest rates. Weaker Q2 growth amid a slowdown in demand for industrial metals from China, and political instability also hurt Brazil's performance. Furthermore, unlike developed economies, Covid-19 and its Delta variant continue to wreak havoc on developing economies given the slower pace of vaccine rollouts. Thus, the pandemic continued to weigh on EM stocks in Q3.

Similar to equities, corporate bonds were flat in Q3: credit markets exhibited a surprising degree of calm despite turbulence in government bond and equity markets. Demand for credit continues to benefit from central bank support and above-trend economic growth, which together created a resilient funding environment and drove robust new issuances. U.S. credit spreads widened modestly over Q3: U.S. IG credit spreads rose by 4 basis points (bps), to 84 bps, and U.S. HY spreads widened by 21 bps, to 289 bps (Figure 6). This widening was a modest detractor to performance. However, both IG and HY credit spreads remained tight and well below their levels at the start of 2020 as corporate and economic fundamentals remained strong with better interest coverage ratios and high profit margins, and investors continued to expect low risk of corporate defaults. Most sectors within the IG and HY credit universe posted flat returns, but similar to Q2, sectors such as airlines, which were

Figure 6: Changes in U.S. Corporate Bond Spreads and Performance Attribution



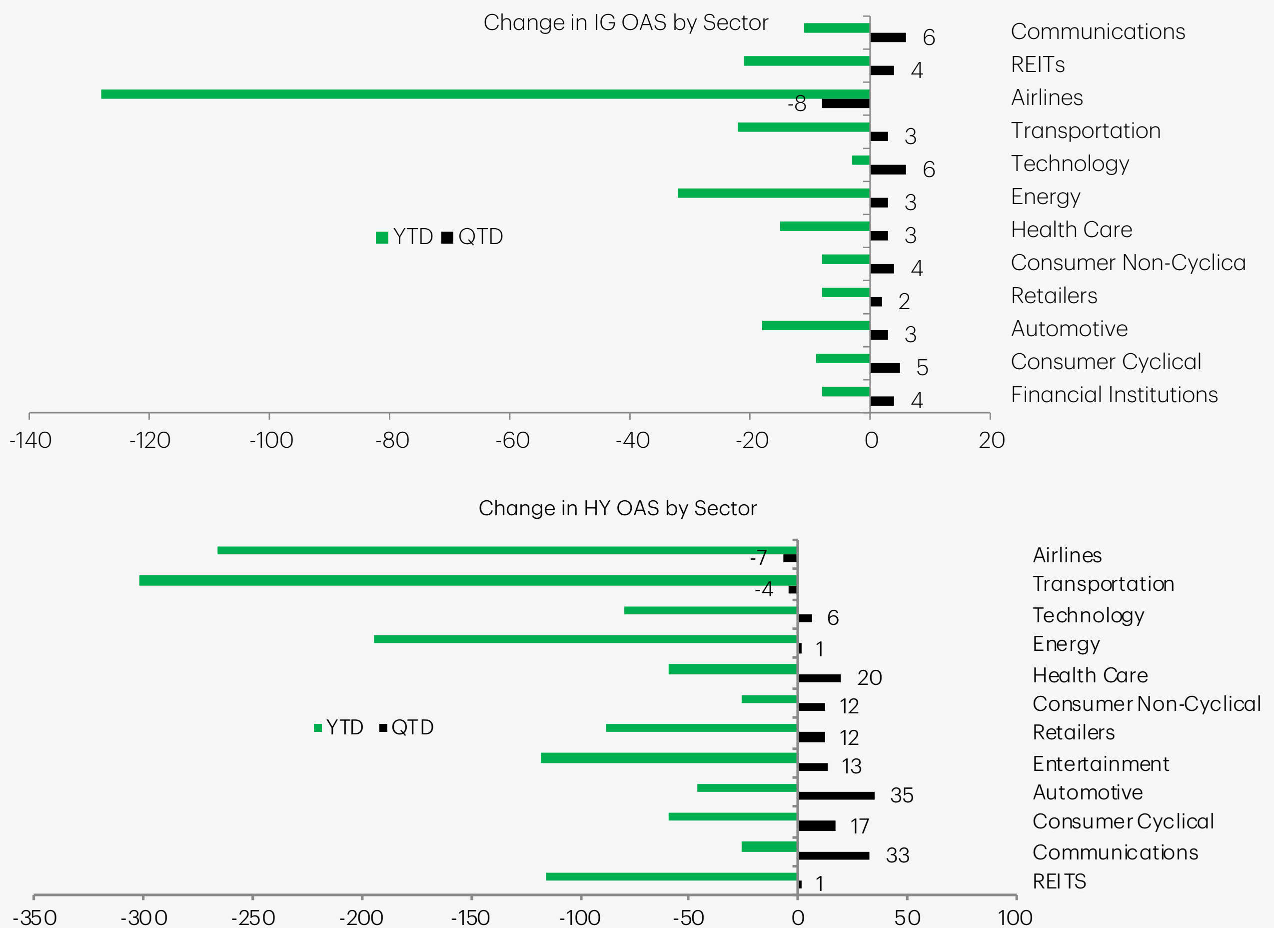
Source: FactSet as of September 30, 2021

hardest hit by the Covid-19 shutdown posted modest gains (Figure 7). Spreads for HY credit issuers within the airlines and transportation sectors tightened by 4-7 bps. Within IG and HY credit, spreads for sectors that were most severely impacted by the pandemic have tightened so much that they are now comparable to their broad indices.

Changes in credit spreads varied across the credit-quality spectrum, especially between HY issuers. U.S. IG credit spreads widened by 4 bps across the board, from AAA-rated to BBB-rated. Conversely, there was wide dispersion between higher and lower quality issuers, with the latter experiencing substantial spread widening as investors favoured quality amid heightened market volatility. Overall, U.S. IG credit bonds were flat in Q3 as both spreads and interest rates ended the quarter virtually unchanged. IG credit bonds have greater interest-rate sensitivity, or duration exposure, so they were adversely impacted by rising government bond yields toward the end of the quarter, although the credit market produced flat returns on a duration-hedged or pure spread-widening basis. U.S. HY credit bonds were also flat in Q3 (in line with IG bonds), despite wider spreads, as their greater income helped offset losses elsewhere. HY credit bonds are more sensitive to economic growth and have less sensitivity to interest rates compared with IG credit bonds. This is especially true for lower quality segments. During Q3, CCC-rated spreads widened by 62 bps, while higher quality BB-rated spreads widened by 3 bps.

Canadian credit performed in line with global credit, supported by modest spread tightening and its lower interest-rate sensitivity, which helped as Canadian government bond yields rose during the quarter. Canadian IG credit spreads tightened by 2 bps in Q3, which helped performance remain flat. However, IG credit outperformed the 0.5% loss for the FTSE Canada Universe Index largely due to the lower interest rate sensitivity. As in the U.S., segments that were most impacted by the economic shutdown, such as airlines, benefited from modest tightening as investors priced in the resumption of travel and office life. Also similar to the U.S. credit market, there was less dispersion across the credit-quality spectrum as spreads tightened by similar levels across credit quality.

Figure 7: Changes in U.S. Corporate Bond Spreads by Sector

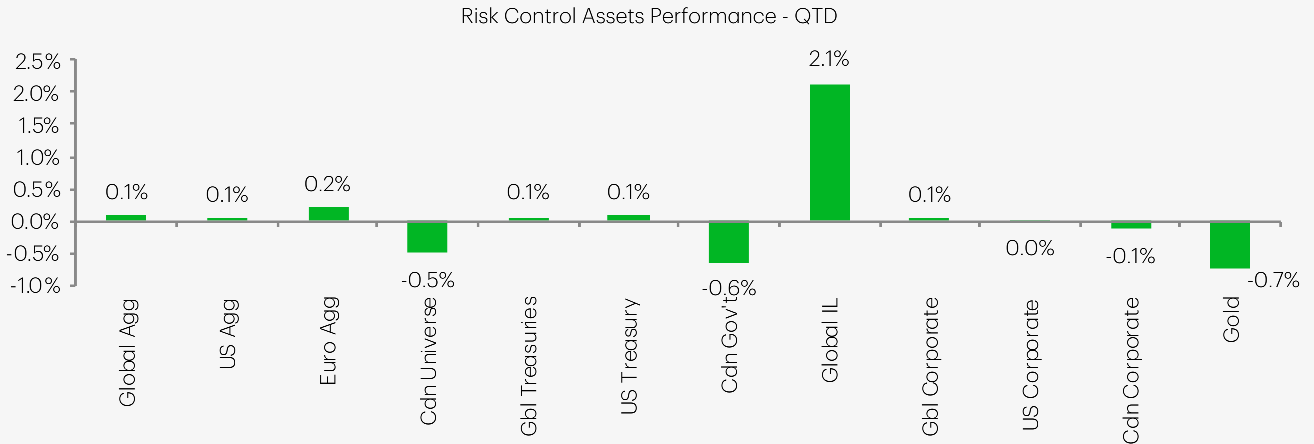


Source: FactSet as of September 30, 2021

Falling Growth Assets

Nominal government bonds and other rate-sensitive assets, which tend to perform well when economic expectations are weak, were flat in Q3, as mounting concerns about inflation and a withdrawal of monetary accommodation offset the impact of weaker growth expectations (Figure 8). Global fixed income, based on the Bloomberg Barclays Global Aggregate Bond Index, gained 0.1% in Q3. U.S. government bond yields fell early in the quarter as economic prospects weakened but reversed course in September and the yield curve steepened following the Fed's tapering announcement (Figure 9).

Figure 8: Performance of Risk Control Assets



Source: Bloomberg Finance LP as of September 30, 2021

Figure 9: Government Bond Yield Curves

Source: Bloomberg Finance LP as of September 30, 2021

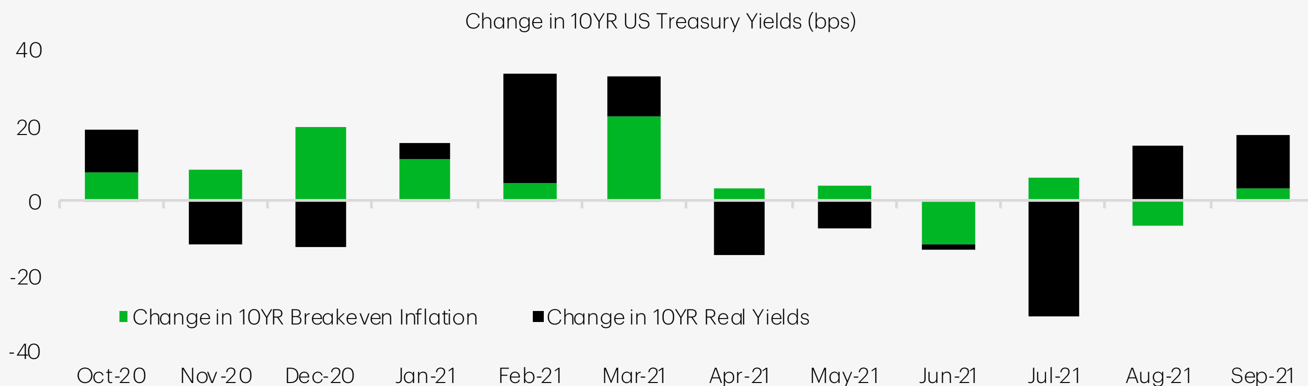
As a result of the Fed's policy shift, U.S. 10-year government bonds gave up all their gains from the last few months and ended Q3 virtually unchanged, with yields at 1.49%. However, most of the rally in government bond yields during September was driven by rising real yields since breakeven inflation only rose modestly (Figure 10). The U.S. government bond yield curve also steepened in late Q3 as longer maturity yields surged in anticipation of a faster than expected reduction in Fed purchases and earlier rate hikes. This bear steepening drove substantial losses for duration-heavy assets, with the U.S. 20+ year Treasury falling by 3% in September alone.

Despite the shift in monetary policy and the surge in yields, government bond yields remain low and accommodative by historical standards. In addition, lower implied volatilities for government bonds reflect the prevailing calm. Even with a looming tapering of new purchases, monetary support remains strong as the Fed will continue to maintain its existing US$8.5tn holdings over the near term. Nonetheless, the scale of monetary accommodation is on the decline as evidenced by the slowdown in M2 money supply growth in Q2 and Q3.

Canadian government bonds underperformed with a loss of 0.6% in Q3, as yields rose. Canadian 10-year government bond yields, for example, rose from 1.39% to 1.51% during the quarter, which is greater than comparable U.S. yields since the Bank of Canada (BoC) is expected to tighten more quickly than the Fed (Figure 11). Canadian 10-year yields surged 29 bps in September alone.

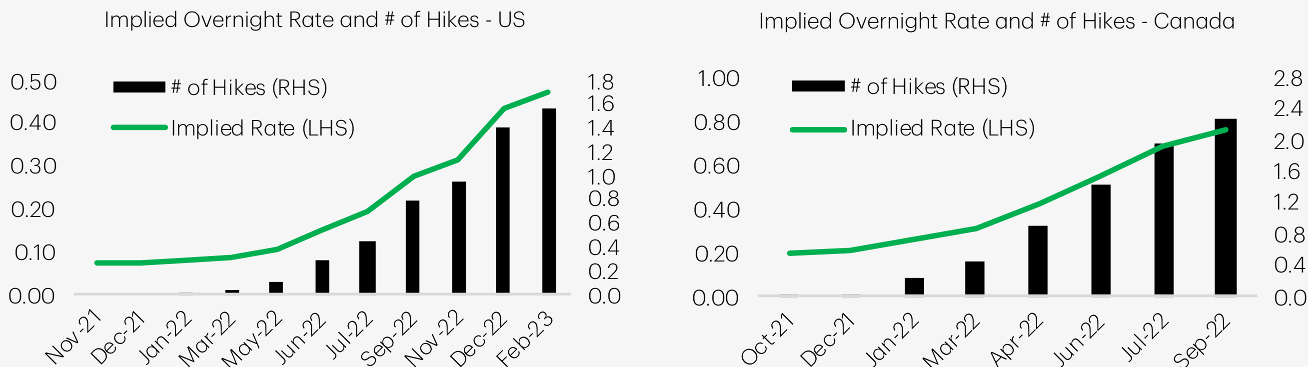
Beyond North America, eurozone bonds (both government and corporate) performed in line with U.S. and Canadian bonds, as price pressures continue to mount even though growth expectations for major European economies have also weakened. Business and investor sentiments have moderated following a strong Q2 and the pandemic-induced demand shock has waned. Like the U.S. and Canada, eurozone government bond yields ended the quarter flat after initially falling and then surging in late September. In September, German 10-year government bond yields increased by 19 bps, while equivalent French and Italian yields rose 18 bps and 15 bps, respectively. Like Q2, the latest PMI readings show that the eurozone remains in expansion mode, albeit at a slower pace.

Figure 10: Contributions to Changes in 10YR U.S. Treasury Yields



Source: Bloomberg Finance LP as of September 30, 2021

Figure 11: Number of Rate Hikes Expected by Markets



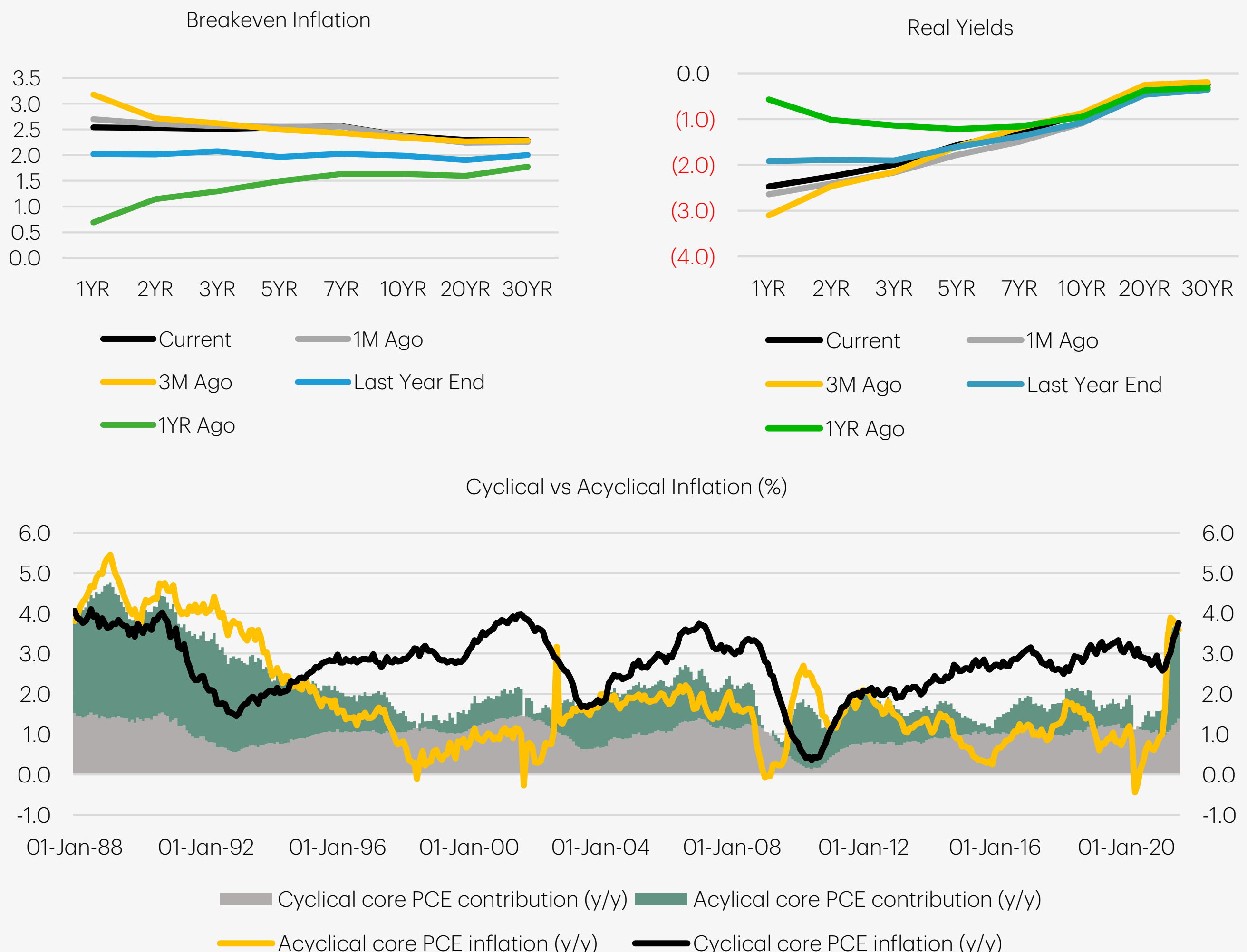
Source: Bloomberg Finance LP as of September 30, 2021

While sentiment remains strong on European growth even though the region emerged from lockdown later than the U.S., pressures have emerged from rising inflation, labour shortages, and soaring energy costs. The weaker euro against the U.S. dollar is providing some support for European exports but this is largely due to U.S. dollar strength, as investors sought safe havens, rather than Euro weakness. The euro appreciated by 8.2% against the U.S. dollar in 2020 but has depreciated by 5.5% in 2021 and 2.5% in Q3 2021. The European Central Bank remains committed to its accommodative monetary policy although it announced a gradual roll-back of asset purchases amid rising inflationary concerns. Even with slower than expected economic growth, the Bank of England was the most aggressive in pivoting monetary policy in response to heightened inflation risk. It announced the possibility of a rate hike before yearend, which is consistent with market expectations. Thus, U.K. 10-year government bond yields rose 30 bps in Q3, all in September.

Rising Inflation Assets

Long-term inflation expectations, based on 10-year expected or breakeven inflation rates, remained subdued and almost unchanged during Q3 (Figure 12) despite surging realized inflation (both CPI and PCE). This showed that bond investors continued to discount longer term inflation risk although this nonchalance evolved later in the quarter when price pressures proved to be more stubborn than anticipated: CPI hit a post-2008 high of 5.4% year-over-year in September which was well beyond market expectations. Since September, breakevens have risen and that has continued into October. Stronger inflation expectations put a drag on inflation-linked bonds (and commodities), as real yields remained flat. U.S. long-term inflation expectations ended the quarter at 2.4%, after falling to a low of 2.1% in July and August. This is almost unchanged from the 2.3% at the end of Q2, and down from a peak of almost 2.6% in May 2021, the highest since 2013.

Figure 12: Inflation Expectations and Real Yields



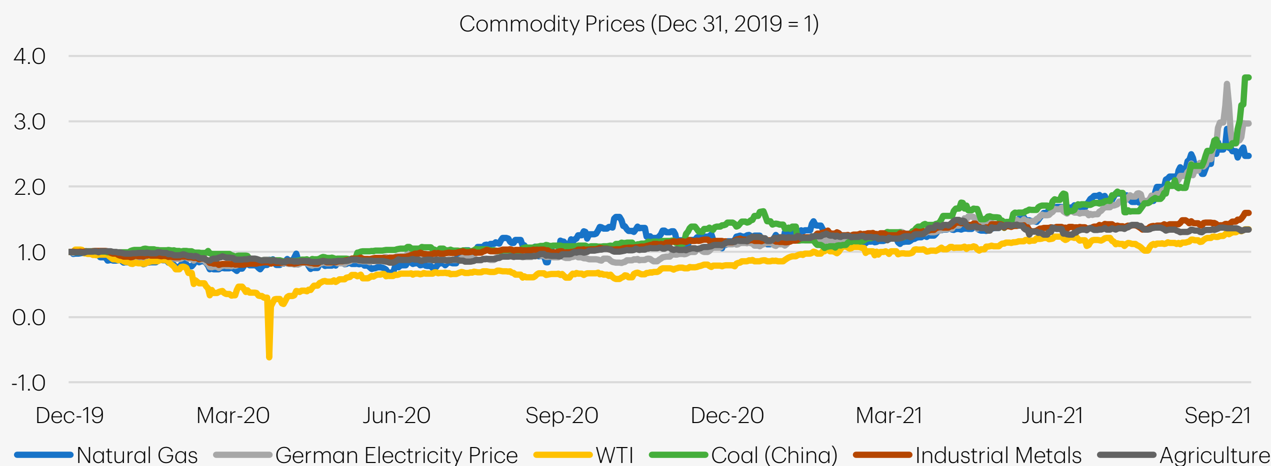
Source: Bloomberg Finance LP and Federal Reserve Bank of San Francisco, as of September 30, 2021

As of mid-October, breakeven inflation has risen above 2.5% as concerns about price pressures intensify. The rise in realized inflation over the past few months was driven by acyclical cost components that are related to industry-specific factors and are therefore less sensitive to monetary policy. This may be why the Fed was hesitant to intervene. Cyclical components, which are more sensitive to business cycles and monetary policy, have started to rise recently, coinciding with the Fed's policy shift. The Fed and the market continue to deem higher inflation as transitory—a product of short-term demand and supply bottlenecks that are likely to fade—but they now view inflation as a more serious concern at least over the near term.

Stronger inflation expectations powered inflation-linked (IL) bonds to positive returns in Q3 despite rising real yields. U.S. IL bonds gained 1.8% in Q3, outperforming the 0.1% return of their nominal counterparts. After falling to -1.2% in July, real yields for 10-year U.S. government bonds recovered to -0.9%, where they began Q3. Despite recent increases, real yields remain near the historic lows reached during the pandemic. The U.S. Treasury inflation-protected securities (TIPS) yield curve was unchanged during the quarter, with the entire real yield curve below zero up to the 30-year mark. Inflation expectations remain above the Fed's average inflation target of 2% but the perceived risk of higher inflation has escalated despite the policy response from the Fed. Global inflation-linked bonds gained 2.1%, in line with U.S. IL bonds and outperformed nominal bonds, as eurozone and U.K. breakevens surged to multi-year highs. Canadian real-return bonds underperformed their global counterparts with a modest 0.3 loss as Canadian real yields rose more aggressively and negated the gains from higher inflation expectations.

Commodities generally provide strong inflation protection. Rising inflation expectations during Q3 provided support for commodities and they continued to benefit from strong demand and tight supply conditions. They posted another quarter of positive performance (up 5.2%), even though returns were weaker than during the previous three quarters. Within commodities, energy rose 9.7% while industrial metals gained 1.6%. Energy benefited from strong demand as global growth continues despite expectations of a slowdown. Natural gas was the clear outperformer with gains of 62% during the quarter alongside an energy crisis across much of Europe. While prices have declined, they remain about 250% higher than at the beginning of the year. Other components also posted sizable gains, including coal, agricultural outputs, and industrial metals (Figure 13). Coal prices spiked in China as shortages limited electricity generation and forced the government to ration electricity. Soaring power costs drove some industries and manufacturers to operate at a loss and some were compelled to shut down to conserve electricity. Similarly, both natural gas and oil faced supply constraints, with crude rising to almost US$80 per barrel. Similar to last quarter, oil prices were buoyed by tight supply and the decision by OPEC to stick with existing plans, imposed during the pandemic, to gradually roll back production cuts by September 2022. Gold—often considered a partial hedge against inflation—lost 1.0% in Q3 despite rising inflation expectations. Gold was hurt by real yields rising in anticipation of the withdrawal of monetary support by central banks, despite a slowing economic recovery in the U.S. and key developed countries. The appreciating U.S. dollar also hindered gold performance. □

Figure 13: Commodities Rally



Source: Bloomberg Finance LP as of September 30, 2021

Outlook on Fixed Income

Modest Underweight

Tapering Takeoff, Not Tantrum

Welcome back to the ever-changing world of fixed income. In the last eight weeks, we've moved from talking about range bound and dot plots to tapering and rate hikes. None of these, however, can compete with "transitory" for the fixed income catchphrase of the year.

Recent economic data points to a sustained labour market recovery in the U.S. thanks partly to widespread vaccination campaigns, the declining threat from the Delta variant and, of course, the ultra-easy monetary policy that has kept the economy ticking over. It should come as no surprise then that in September, the Federal Reserve indicated it could start tapering asset purchases at its November Federal Open Market Committee (FOMC) meeting. Now bear in mind that ever since 2013 government bonds and financial markets have reflected the assumption that there is no tapering without a bond tantrum. This time, unlike 2013, the Fed has taken steps to prepare financial markets for a gradual tapering, or unwinding, of the quantitative easing (QE) program and for an eventual tightening of monetary policy.

Remember that when the Fed talks about tapering it's trimming the magnitude of the bond buying program, not unwinding the massive central bank balance sheet. As such, we believe bond markets will experience some volatility but will not have a tantrum.

Within the fixed income market, corporate debt still holds opportunities even though it's expected to remain range bound. We remain modestly constructive on investment grade (IG) credit although we're still cautious of expansive valuations. IG credit continues to be resilient to interest rate volatility, has a broad investor base to digest new supply, and the relatively higher yield on offer compensates for underlying risks. We maintain our underweight view on government bonds. We also maintain our defensive view on high yield credit.

Lower yields and tighter spreads mean that fixed income portfolios are still sitting in a tricky situation so it's worth repeating that bonds aren't meant to capture upside risk. They provide quality income and stability through downside protection. For those clients heavily invested in fixed income, keep focusing on probable income versus probable drawdowns (or peak to trough movement).

Government Bonds and Inflation

At the September FOMC meeting, Fed Chair Jerome Powell said that as long as economic recovery remains on track the Fed could start tapering QE purchases in November and finish tapering by mid-2022. The Fed has bought US$2.9tn of U.S. government or Treasury bonds and US$1.2tn of mortgage-backed securities (MBS) since quantitative easing began in March 2020. Since June 2020 the Fed has been buying US$80bn a month in Treasuries and US$40bn a month in MBS. We expect the Fed's Treasury and MBS holdings to top out in mid-2022 (around the same time as tapering finishes), even though the Fed will keep reinvesting the principal from maturing bonds. This accelerated timeline effectively puts the Fed on tapering autopilot unlike 2014 when the Fed scaled back QE3 purchases at each individual meeting. If the Fed announces tapering in November, we expect to see each successive scheduled purchase decreased by US$10bn-US$15bn for Treasuries and US$5bn for MBS. We believe investors have priced in a November tapering takeoff, although the pace is faster than previously expected.

Central banks always in focus

So what's next for monetary policy and the bond markets?

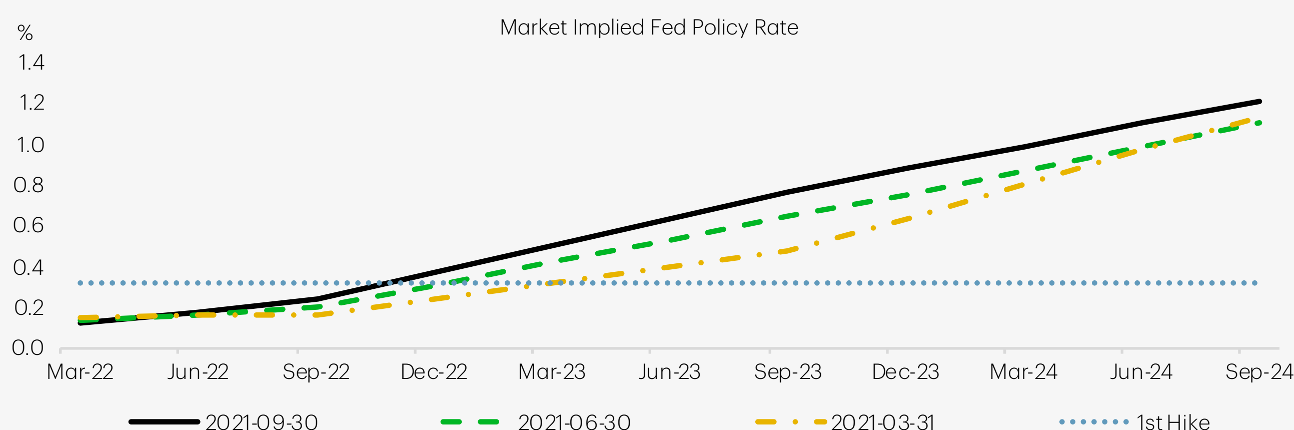
The big questions hanging over fixed income markets is when will policy rates lift off and how far will they go? Both the updated Summary of Economic Projections (SEP) and the projected dots plots for the fed funds rate from the September FOMC meeting were skewed to the hawkish side of expectations. FOMC participants lowered their 2021 growth projections to reflect the evolution of the economy over the last three months and they made small upward revisions to 2022 and 2023. This was in line with expectations. As shown in Figure 1, labour market forecasts were little changed in 2022 and beyond, but the median core PCE inflation was revised higher by 0.2 percentage points for 2022 and 0.1 percentage points for 2023. As a result, the FOMC median points on the dot plot now reflect seven fed fund rate hikes by the end of 2024. Moreover, a hawkish wing of the FOMC projects two hikes by the end of 2022. This was a bit unexpected although consistent with the rate hikes implied by markets, as shown in Figure 2.

Figure 1: September FOMC Summary of Economic Projections (Compared with June)

		2021	2022	2023	2024	Longer run
Real GDP	Sep-21	5.9	3.8	2.5	2.0	-
	Jun-21	7.0	3.3	2.4	-	1.8
Unemployment Rate	Sep-21	4.8	3.8	3.5	3.5	4.0
	Jun-21	4.5	3.8	3.5		4.0
Core PCE	Sep-21	3.7	2.3	2.2	2.1	-
	Jun-21	3.0	2.1	2.1	-	2.0
Fed Funds rate	Sep-21	0.1	0.3	1.0	1.8	2.5
	Jun-21	0.1	0.1	0.6	-	2.5

Source: U.S. Federal Reserve, TD Wealth, as of September 30, 2021

Figure 2: Market Implied First Rate Hike in Q4 2022



Source: Bloomberg Finance L.P., TD Wealth, as of September 30, 2021

At the September meeting, Governor of the Bank of Canada Tiff Macklem offered more detail for the Bank of Canada's (BoC) reinvestment phase. Macklem said the BoC's first move to reduce stimulus would probably be through rate hikes. Second, he said the reinvestment phase would reduce the level of both primary and secondary market purchases of Government of Canada bonds (GoCs). And third, Macklem noted that the BoC expected to purchase $4bn-$5bn per month worth of GoCs. With the current balance sheet sitting at $53bn, these purchases would correspond roughly with a monthly reinvestment phase that runs from October 2021 to October 2022 or a weekly reinvestment phase from January 2022 to July 2022. Of course, there are other possibilities: perhaps the governor was being a bit loose with the arithmetic, or maybe the central bank views a monthly $1bn decline in holdings as inconsequential, or it could be that the bulk of the speech was written ahead of Q2 GDP data and that Macklem will recalculate after October forecasts have been completed. Still, given Macklem's speech the probability of reinvestment starting in November has increased, hence the associated risk has moved from negligible to material.

Supply and demand for U.S. government bonds

On the supply side, the U.S. Department of the Treasury is likely to start cutting the size of government bond auctions at the November refunding meeting. This reduced supply will offset only some of the reduced demand from the Fed because the actual pace of Fed tapering, or reduced bond purchases, will be faster than supply cuts. Figure 3 shows supply net of Fed buying is likely to remain elevated in 2022 (slipping by just US$169bn to US$1606bn). If all else remains the same, in order for private investors to be enticed into digesting the additional supply, yields for government bonds will need to move higher.

What is driving demand for government bonds? The Q2 2021 Flow of Funds report released recently showed that excluding the Fed, the largest demand for U.S. government bonds came from state and local governments and overseas investors. State and local government net purchases for Q2 were, at US$200bn, well above the pace seen before the pandemic. This is partly because of the influx of transfers from stimulus measures and relatively strong tax receipts. We expect buying from this category to decline and

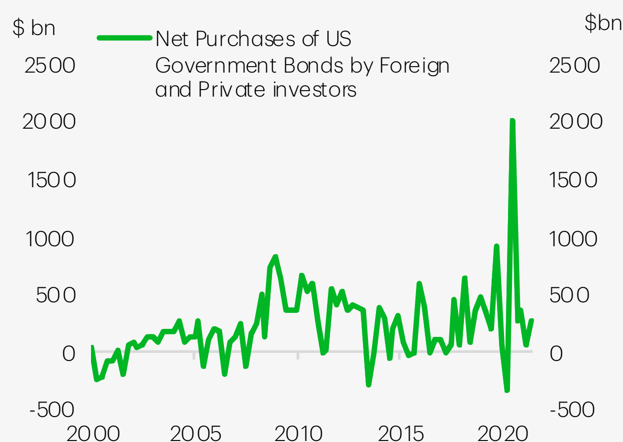
Figure 3: Supply Remains High Despite Cuts to the Size of Bond Auctions

	FY19	FY20	FY21	FY22	FY23
Deficit	984	3132	3000	1500	1250
Funding Need	1247	4013	1419	2200	1300
Net Coupon Issuance	1110	1361	2734	1965	1243
Net Bill Issuance	137	2652	-1315	235	57
Fed QE Buying	0	2110	960	360	0
Net Supply Net of Fed	1110	-749	1774	1606	1243
10y Equiv Supply	1863	2271	3419	2933	2665
10y Equiv Fed Buying	0	1322	720	270	0
10y Equiv Supply Net of Fed	1883	949	2699	2663	2605

Note: All figures in billions and U.S. dollars. Forecast for FY2022 assumes another $300bn of additional fiscal spending. Future issuance and QE based on TD Securities projections, assuming tapering begins November 2021 with a $10bn/month reduction in U.S. Treasury purchases, ending in June 2022.

move closer to historical values as stimulus transfers wane. As far as overseas demand is concerned, we've been of the view that the foreign sector would be a significant buyer of U.S. government bonds this year and we believe this continues to be the case for both foreign official and private buyers (Figure 4). The Flow of Funds report also showed solid demand from banks and asset managers. For banks, we expect continued, though moderating demand as the pace of deposit gains slow. As for asset managers, recent Treasury auction strength appears to be driven in part by an increased bid from investment funds, suggesting they may remain a source of support at least in the near term. Overall, there doesn't appear to be a significant imbalance in the buyer base of U.S. government bonds for now.

Figure 4: Continued Demand for U.S. Government Bonds from Foreign Officials and Private Buyers



Source: Federal Reserve, TD Wealth, as of June 30, 2021. Treasury purchase data is released quarterly, and the most recent data is from Q2 2021.

Inflation expectations: the real test

A combination of re-opening momentum and base effects (where numbers from this year are higher simply because they're compared with last year's abnormally low numbers) continues to push up 12-month core inflation rates across G10 countries. The 3-month core inflation momentum, however, appears to have topped out in the U.S., Canada, and the U.K. while Europe (minus the U.K.) has seen some acceleration which remained within recent ranges. Broader inflation expectations show a similar pattern while remaining high in some countries: the 3-month momentum for broader inflation has slowed in most developed economies with the exception of the U.K. Household inflation expectations remain muted and central banks continue to view inflation as mostly transitory. We do acknowledge a number of significant upside risks going forward as demonstrated by the recent higher-than-expected data posted by a few sub-categories within the inflation basket. These probable risks are not limited to the impact on core inflation of rising energy prices (natural gas and electricity in particular), supply-chain bottlenecks, and labour market mismatch.

If you remember, the median on the dot plot from the September FOMC meeting has moved higher. In the same vein, the inflation forecast has also been pushed higher for coming years. This contrasts with the June FOMC Summary of Economic Projections (SEP) where the 2023 median dot plot projection rose by 50 basis points (bps) despite the lack of material change in forecasts for either inflation or unemployment. We interpreted the latter as a sign of a more hawkish reaction function, or policy response to overall economic conditions, whereas the higher path for the fed funds rate, or the policy rate, from

the September meeting indicates a more considered reaction to higher expected inflation. We view the median PCE/Core PCE (Personal Consumption Expenditure) forecast of 2.2% to 2.3% for 2023 to be in line with market expected inflation breakevens. This means the bond market is pricing in similar inflation levels suggesting that inflation isn't a concern. On the modestly dovish side, median core PCE was projected to remain above the 2% target through 2024 with the end 2024 median rate projection still implying that accommodative policy remains appropriate. We call this modestly dovish because the projected policy rate at the end of 2024 is still below the longer term neutral rate (or the long-term natural rate of interest that supports the economy at full employment/maximum output) in spite of forecasted median PCE above 2%. In our view, the outcomes of the September FOMC SEP meeting are more consistent with the Flexible Average Inflation Targeting (FAIT) framework than those of the June meeting because they demonstrate greater tolerance for persistent above-target inflation. Rate markets have already priced in inflation above the pre-pandemic trend for the next several years. This is consistent with the Fed's projections even though officials maintain that inflation is still transitory and not structural.

Putting it all together

What do we need to see higher U.S. and Canadian government bond yields?

1. Stabilized growth forecasts for the coming quarters. Most market participants have lowered Q3 annualized real GDP growth to 5.0% (from 7.0% previously and from a peak of more than 8% early in the summer). Thus, we look forward to data confirming the Delta variant has indeed had a limited impact on the medium-term growth outlook.

2. An eventual removal of liquidity will go a long way to reduce record demand for government bonds. A tremendous amount of liquidity has been pumped into the system this year—think of the record end-user participation in recent auctions—and reserve balances have risen by almost US$1tn year to date. It remains to be seen whether this demand will continue as the Fed scales back purchases and the Treasury department rebuilds its Treasury General Account (TGA) later this year and drains its reserves.

Net of these factors, we believe the Delta variant will have a limited impact on growth and, given the swing in policy support likely to occur in Q4 coupled with still-rich valuations, we reiterate our base case scenario for a steeper yield curve and for government bond yields to grind modestly higher in an orderly manner.

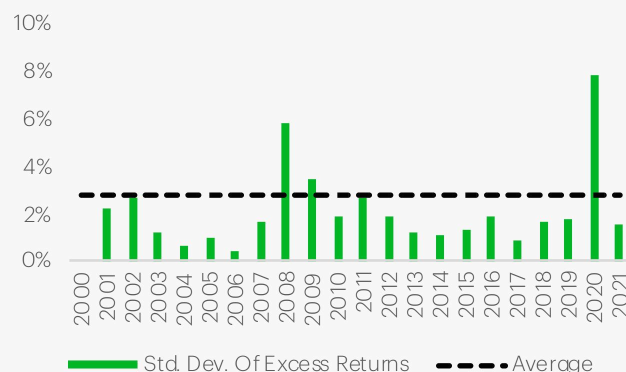
Investment Grade Credit

Beta compression in all its forms has been the theme so far this year in the investment grade (IG) credit market. The ratio of spreads for BBB-rated and A-rated credit has declined to multi-year lows, credit curves have flattened (before some reversion amid declining government bond yields), and the highest beta sectors outperformed. The most COVID-exposed tranche of credit rebounded substantially and the cyclical versus non-cyclical spreads continued compressing to below pre-pandemic levels. While concerns linger about the Delta variant and there are uncertainties around the effects of Fed tapering, the macro backdrop remains resilient. Although most market participants have reduced their forecasts for U.S. GDP growth, the Fed remains largely accommodative and estimated growth of 5% in Q4 2021 and 3.7% for 2022 should be a strong enough operating environment for IG-rated companies.

Despite the encouraging economic backdrop, U.S. IG Credit Index spreads may end the year marginally wider than current levels because: there are fewer positive technical indicators (i.e., higher government bond yields might lure back yield-hungry investors who have, historically, turned to IG credit when bond yields were lower); and some corporates are prioritizing cash distributions to equity holders and debt-financed M&A activity which has hurt corporate leverage. Even accounting for this, we believe spread volatility will remain subdued, and any spread widening will probably be similar to what we saw in July and August.

July and the first half of August were more eventful than most investors expected largely due to elevated issuance, however, spread moves were measured. As shown in Figure 5, the annualized volatility of monthly excess returns for the IG Credit index this year is near the lowest level of the past 15 years; only 2006 recorded lower volatility.

Figure 5: Annualized Volatility for Monthly Excess U.S. IG Credit Returns is Near 15-Year Lows



Source: Bloomberg Finance L.P., TD Wealth, as of September 30, 2021

Throughout 2021, we've maintained our positive outlook on BBB-rated credit and as Figure 6 shows, BBB has performed rather well. While we acknowledge that valuations have compressed (as evidenced by the BBB-A spread differential hovering near the tightest levels in many years, Figure 6), we believe BBBs will remain the sweet spot in IG credit. This view is largely predicated on strong search-for-yield motives which will continue to push IG investors to maximize carry (or the income return component of the total return as returns from spread compression are expected to remain elusive). We also think the risk of fallen angels is quite low because BBB-rated issuers are incentivized to manage capital conservatively.

Sub-Investment Grade or High Yield (HY) Credit

The yield on the ICE BofA US HY Credit index stands at 4.0% and is within 22bps of the all-time low reached in early July. With yields this low and spreads tumbling 77bps so far this year to hover around the tightest level since the end of the Global Financial Crisis, it is difficult to see any more tightening, and certainly not a large move. As such, we believe HY credit will be range-bound in the near term, and with interest rates nudging upwards, we anticipate a mild positive return for the asset class.

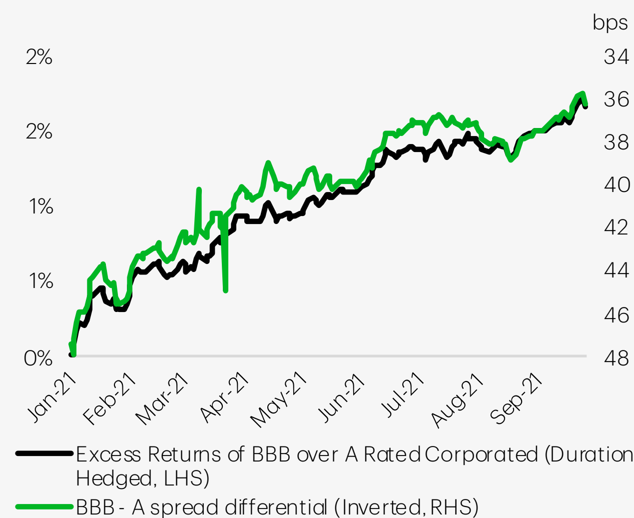
Despite the mild volatility in the HY credit spread experienced in July and August—triggered by Delta variant dread—flows into HY mutual funds have been steady, averaging US$2bn to US$3bn per month in June, July, and August with total mutual fund inflows for the year to the end of August 2021 close to US$14.4bn. New issuance in the HY credit area has been robust as well. Companies have been taking advantage of attractive interest rates to refinance maturities and fund spending. New issuance stood at US$34bn in August and totals US$347bn for the year as of end August.

Going into 2021, we held the fundamental view that the macroeconomic backdrop will keep corporate defaults benign. This view was based on two factors.

1. Despite concerns by some market observers that monetary policy was effectively subsidizing firms that would have otherwise defaulted prior to the pandemic, we pointed out that the process of creative destruction was alive and well. During 2020, firms likely to default in the face of a negative economic shock did so, thus cleaning up the HY credit market and increasing the overall issuer quality going into 2021.

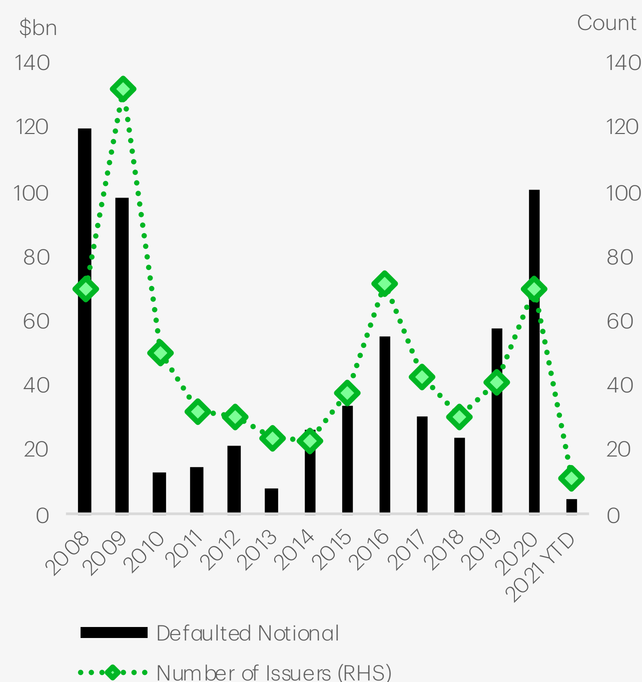
2. As the economy reopened, favourable funding conditions for HY credit allowed many firms to shore up their liquidity positions and pre-fund upcoming maturities. Figure 7 shows how these two forces have shaped defaults so far this year. According to data from Moody's, 2021 has recorded 11 defaults, totaling US$5bn—that's one of the lowest number of defaults on record and a dramatic decrease compared to last year. Defaults should remain at these rock-bottom levels for the remainder of 2021. Markets expect an overall default rate of just 2.5% for 2021. At this point in the year, it seems likely that even this low figure will turn out to be on the high side but given current tight spreads we maintain our defensive stance overall.

Figure 6: BBB-rated IG Continues to Outperform A



Source: Bloomberg Finance L.P., TD Wealth, as of September 30, 2021

Figure 7: Number of Issuers that Defaulted and Total Notional Value of Defaults in USD HY Credit Market



Source: Moody's, TD Wealth, as of September 30, 2021

Flexibility is Key

We believe the post-Covid world will be marred with similar structural issues as the pre-Covid world: slow population growth, challenging demographics (aging workforce and reduced labour force) and tepid productivity growth. These factors are keeping neutral rates locked in and, as we know, rates form an integral part of where long-term government bond yields trade. One could argue that bond markets appear to be pricing in a post-Covid world that is even more challenging than before the pandemic.

U.S government 10-year bond yields, at 1.5%, are 40bps below December 2019 levels and 10-year real yields are a little more than 80bps lower. A large portion of the decline, however, reflects the anticipated policy stance in the coming years. The policy rate is currently at 0%-0.25% (compared with 1.5%-1.75% in December 2019) and is expected to remain at these low levels until lift-off conditions are met. However, even controlling for this, markets are priced for terminal levels of the policy rate to be below those that prevailed before COVID. In other words, markets appear to be saying that, in the upcoming hiking cycle, the Fed will not even be able to raise the policy rate to 0% in real terms (or an equivalent 2.0% fed funds rate).

In our view, there are two possible explanations for the divergence. Markets could either be extrapolating from pre-COVID trends by pricing in further declines in the neutral rate to negative territory over time, or investors could be paying a premium to own duration (or interest rate risk) leading to a negative term premium. Long-term bond yields are therefore the most challenging to predict and reinforce our base case scenario for stable yet modestly grinding higher government bond yields as well as a steeper curve over the short-to-medium term. For Inflation—although it has surged in 2021—we expect a slowing in 2022 as the boost from base effects and re-opening fade and the surge in used-vehicle prices is partly reversed. In credit markets, we expect spreads to remain stable for the coming months. We are modestly constructive on IG credit while maintaining our defensive view of HY credit.

With interest rates at low levels in a challenging environment that will likely persist, the ability of bonds to fulfill their traditional roles of providing dependable income and return while acting as a risk diversifier, will be called into question. Therefore, we stress again the key aspects of fixed income investing:

1. Fixed income portfolios are not meant to capture upside risk.

2. Fixed income is more than just government bonds. The current market environment calls for a flexible approach to building resilient fixed income portfolios, including diversifying sources of return within fixed income and emphasizing relative-value opportunities when generic beta exposures don't look compelling.

3. With the current low yield environment, looking for 'fixed income alternative' options in equity markets (dividend yields and option-overlay equity strategies) might look relatively enticing. However, we need to consider the volatility of returns and potential drawdowns for these alternatives because in the short term they might have a higher positive correlation with equity markets. In addition, they might come with other investment risks like reduced liquidity when investors are looking for liquidity.

4. Maybe the most important aspect is that duration, or interest rate risk, still has a role to play in portfolios. Duration tends to have a negative correlation to other risk assets and the role of the duration and the fixed income asset class, as a whole, has not diminished: higher yields translate into enhanced downside protection if markets sell off. Of course, it's prudent to evaluate losses from duration-heavy investments over this year, but we should not completely discard this diversifying asset class due to its poor returns in a pro-risk environment.

While moving towards lower duration and riskier solutions in the fixed income sleeve we need to remain vigilant of the inherent drawdown risks versus enhanced yields or the desire to capture market upside. We need to consider the kind of drawdowns acceptable to clients who are investing heavily in fixed income and evaluate probable income versus probable drawdowns, instead of probable returns versus probable volatility. □

Outlook on Equities

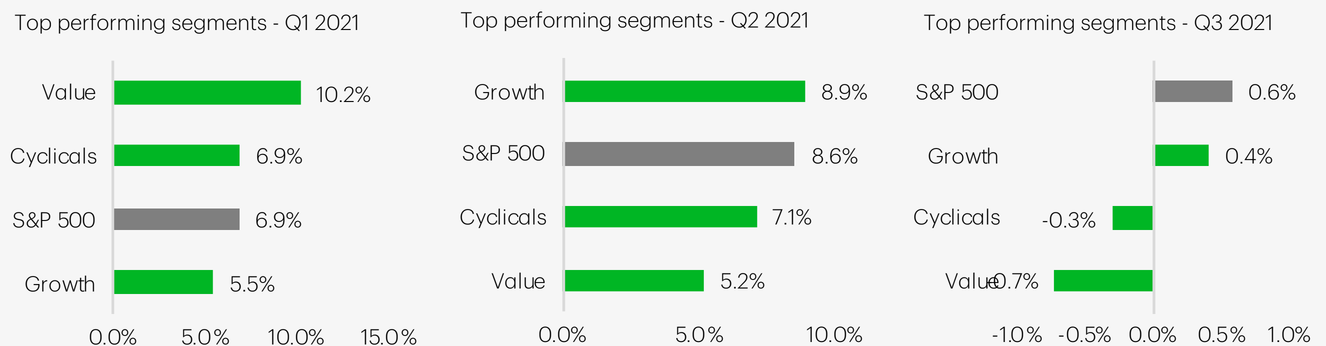
From peak to moderation

Over the past 18 months, it has been astounding to see financial markets moving at such a rapid pace. At the beginning of 2021, the way forward for equities looked predictable — an increasing pace of vaccinations was expected to boost economic growth, which would eventually support underlying earnings growth. Supply constraints were expected to subside as economies reopened, and the threat of inflation was considered transitory. Historically, after a recessionary period, the market's recovery phase has usually lasted between 18 and 36 months, so early in the year, the markets strongly favoured recovery plays in value and cyclical stocks; growth stocks were expected to take a back seat.

Six months on, things have not gone according to plan. Vaccine hesitancy has kept developed markets from achieving the rates of vaccination that had been anticipated. The emergence of the extremely infectious delta variant, meanwhile, led to a rise in cases. These developments — along with supply constraints, high inflation and the Fed's recent comments on tapering — have brought equity markets to loggerheads. In the first half of Q3, these concerns led to falling Treasury yields, which boosted growth stocks. Then, in the latter half, the pendulum swung back. Inflation fears intensified due to rising supply constraints, which boosted yields and allowed value stocks and commodities to appreciate. These swings in sentiment are the result of a more distracted market and a more skittish investor (Figure 1).

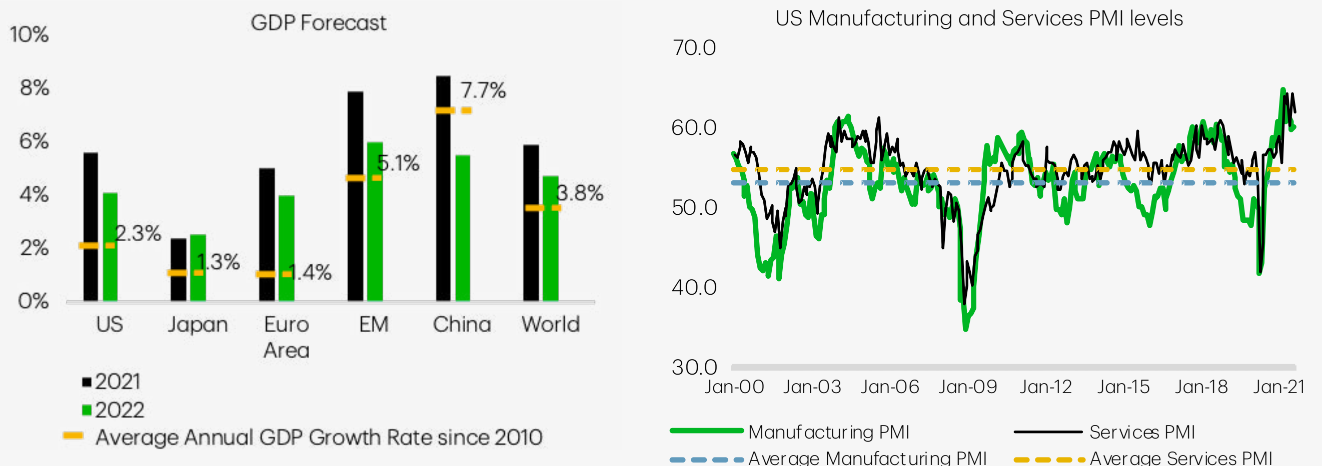
The skittishness may be premature, though. Three months ago, we noted that economic growth and upward earnings revisions were close to their peak. However, as we transition away from these peaks, it's important to note that growth is expected to remain relatively high (Figure 2). TD Economics expects global economic growth over the next few years to be significantly higher than it was over the past 10 years.

Figure 1: Market focus swings back and forth in 2021



Source: Bloomberg Finance LP as of September 30, 2021

Figure 2: Moderation of growth does not equal deterioration of business conditions



Source: TD Economics, Bloomberg Finance L.P., as of September 30, 2021

Meanwhile, business confidence levels (as measured by purchasing managers' indices) and household spending power remain historically high, and Covid cases have moderated as of late, which should help to revitalize the economic recovery. In short, we believe there is more steam in the recovery trade, which should benefit value and cyclical stocks.

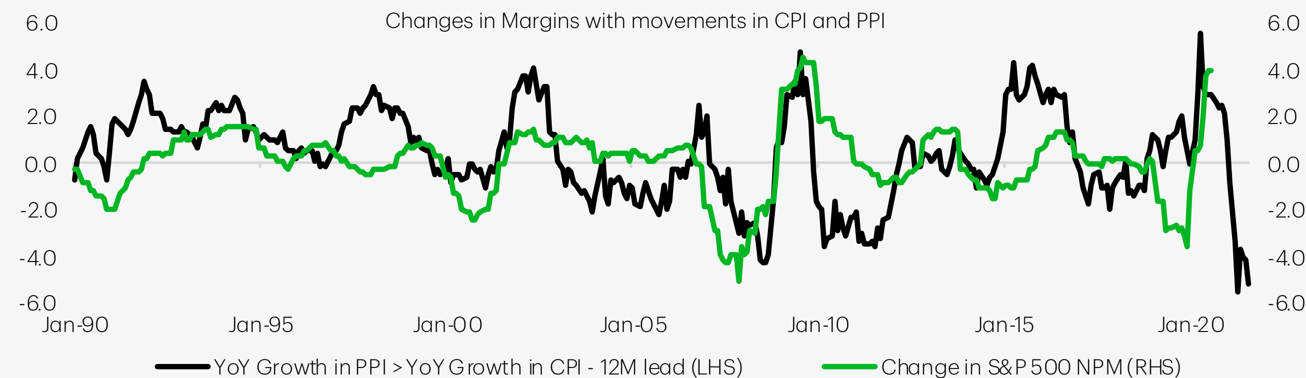
Into uncharted waters

Investors at the beginning of the year expected some transitory inflation. What they failed to envision were the price spikes caused by severe constraints in the global supply chain. In 2020, demand for most goods cratered as economies worldwide went into lockdown. Shipments by ocean carriers were cancelled, manufacturing capacity was cut, and workers everywhere were displaced. In the third quarter, when the number of daily Covid cases started to decline, demand for goods and services surged, putting pressure on the already compromised supply chain. The complex logistical system that moves raw materials and finished products around the globe requires predictability and precision — both are missing in the current environment.

The cost of seafaring shipments has, as a result, surged five-fold, which has naturally led to a rise in input costs. This new reality for businesses, along with weak labour supply, have raised the spectre of persistently high inflation. We continue to believe that, over the long term, these issues on their own cannot sustain chronically high inflation. That being said, we don't know when bottlenecks in the supply chain will be resolved, or when labour supply will begin to meet demand. In the meantime, high inflation could lead equity markets to react negatively. It could also put new pressure on profit margins. This is evidenced by the interplay between the consumer price index (CPI) and the producer price index (PPI): historically, when the PPI has been persistently higher than the CPI, companies have seen their margins squeezed (Figure 3).

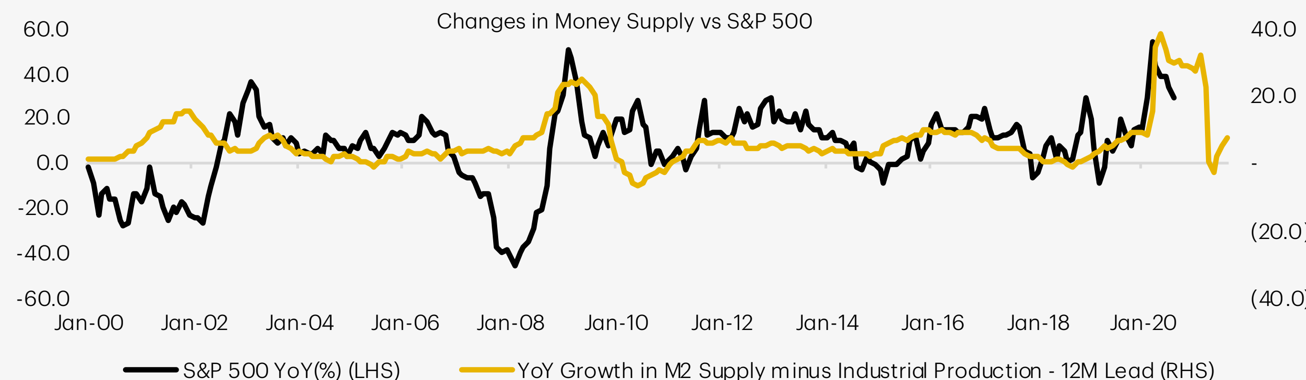
Equities will also react to the stance taken by the Fed and other central banks on tapering and rate hikes. We believe that, as long as the central banks continue to communicate their game plan for tightening, we should not see a major pullback in equities. However, when money supply is reduced significantly after a recessionary phase, equities have usually recorded a decline (Figure 4). So, if inflation begins to pose a significant threat to the economic recovery, and the pace of tapering hastens, that could make equities vulnerable.

Figure 3: Inability to pass on costs squeezes margins



Source: Bloomberg Finance LP as of September 30, 2021

Figure 4: Equities usually fall when monetary policy tightens



Note: Annual growth in industrial production is deducted from M2 supply to account for a liquidity reduction due to the economic expansion. Source: Bloomberg Finance LP as of September 30, 2021.

In the following sections, we will discuss in greater detail the outlook for equities across various regions, and explore the investment strategies required to weather such uncharted risks.

North America: Value meanders upward

The trading pattern in North American stock markets over the past few months has felt a little like the Pushmi-Pullyu of Dr. Dolittle fame. Markets have not been convinced as to whether arguments in favour of value make more sense, or whether growth should dominate. Since the onset of the delta variant quashed the market's initial move to value stocks and cyclicals, other forces have begun to take over. Inflation, which the Fed has labelled "transitory," has begun to look less so given the wave of unmet demand. The reality is less certain, however, given significant but temporary logistical gaps — including port shutdowns in China and a dearth of ships and containers.

Our opinion is that the inflation we are seeing is more likely the result of temporary supply-side interruptions than persistent excess demand. We believe that, over the next six to nine months, the forces of supply and demand will find a better balance, and inflation will settle down again. Growth, which ascended to an impressive peak in the second quarter (but only relative to last year's shutdown) will also come back down to earth, and the initial phase of some infrastructure plan in the U.S. will begin to take hold.

As central banks around the world begin to withdraw stimulus, market rates will more likely drift upward — a move that decreases the value of future cash flows (which underpins some of today's high valuations). It also appears that the Covid variant has largely run its course in the United States, with daily cases falling significantly of late. At the same time, vaccination rates have begun to pick up: the U.S. is now at 118 doses per 100 people, up from just 100 in late July. In Canada, where vaccinations initially lagged, the rate has surpassed the U.S. and now sits at 148 doses per 100 people, up from 130 in late July.

Investor concerns over the next three to six months will revolve around supply-chain-related interruptions. Already, companies that are dependent on long-reaching supply chains have seen their valuations drop. For retailers, meanwhile, these concerns may lead to an earlier-than-expected holiday shopping season, as people try to get ahead of possible shortages. We believe that these supply-chain issues have already been priced into most equities — both for companies that will benefit and for those that will suffer. These issues are not insurmountable and will likely be resolved within six months.

In addition to the supply-chain concerns are the more immediate ones relating to the size and scope of President Biden's infrastructure spending plan. This plan is expected to provide a tailwind for growth through 2022 and into 2023. The other side of the spending plan, of course, will be the tax increases for corporations and the wealthy, which given all the political haggling and uncertainty, have not been fully factored into the market. We also feel that the threat of regulatory action against the social-media giants is very real, which may generate volatility for these names over the next six to nine months.

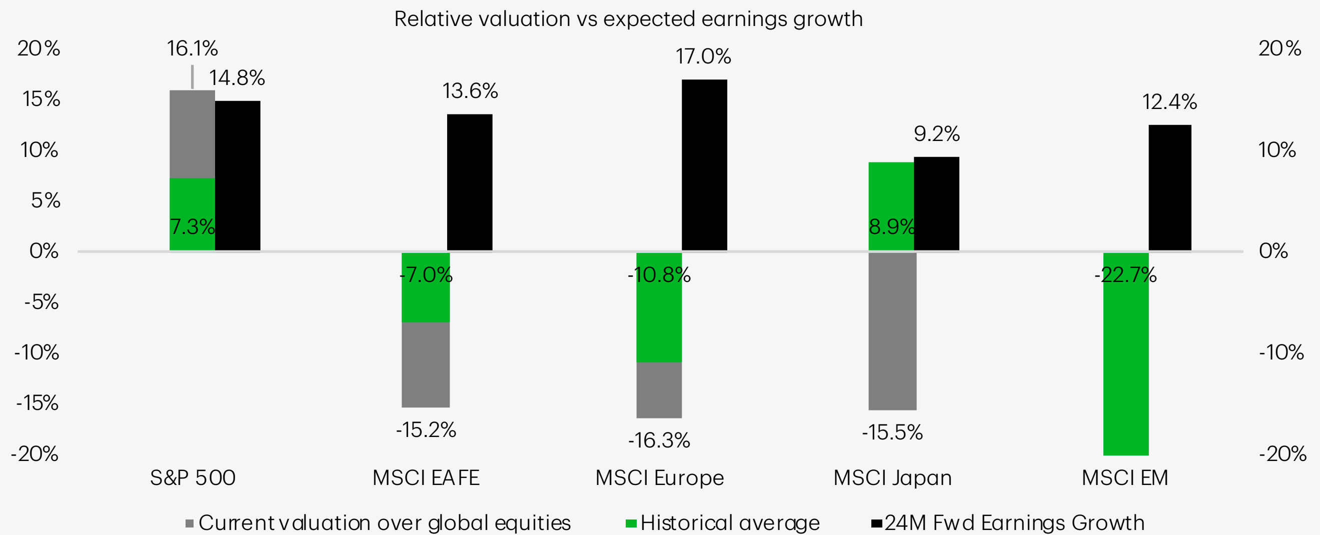
As the pace of the pandemic eases, we see the rate of inflation moderating and the growth environment normalizing. While lower earnings growth and higher-trending interest rates will likely keep valuations in check, we continue to see North American equity markets meandering in a positive direction. The trade over the next six to nine months should be toward the "value" segments of the market and away from the long-duration equities that have done well so far this year. That is not to suggest that their business models will be in question; this is, rather, about the normalization of values. On the other side, cyclical companies in the consumer discretionary, materials, industrial and energy sectors should benefit from the environment ahead.

International: Still playing catch-up

We continue to hold an overweight position in international equities, primarily due to their attractive valuations and positive double-digit earnings growth (Figure 5). Moreover, the pace of vaccination in these regions has been improving. Europe and Japan have administered first doses to 52% and 60% of their respective populations, up from 28% and 14% in June 2020. We believe, therefore, that international recovery stocks (value and cyclicals) will now catch up to the appreciation recorded by U.S. recovery stocks in the first half of 2021.

Given that international equities have more exposure to cyclicals and value stocks than the U.S., higher appreciation for these baskets was expected. This did not come to pass in the third quarter; value and cyclical stocks have appreciated at the same pace in the U.S. and international regions. From a valuation perspective, however, what this means is that international value and cyclical stocks continue to trade at higher discounts relative to the U.S. (Figure 5). We believe international equities are poised for higher appreciation as the recovery play catches on based on the large-scale reopening of economies. This should lead to the kind of multiple expansion that has been

Figure 5: Global stocks continue to offer attractive risk/reward



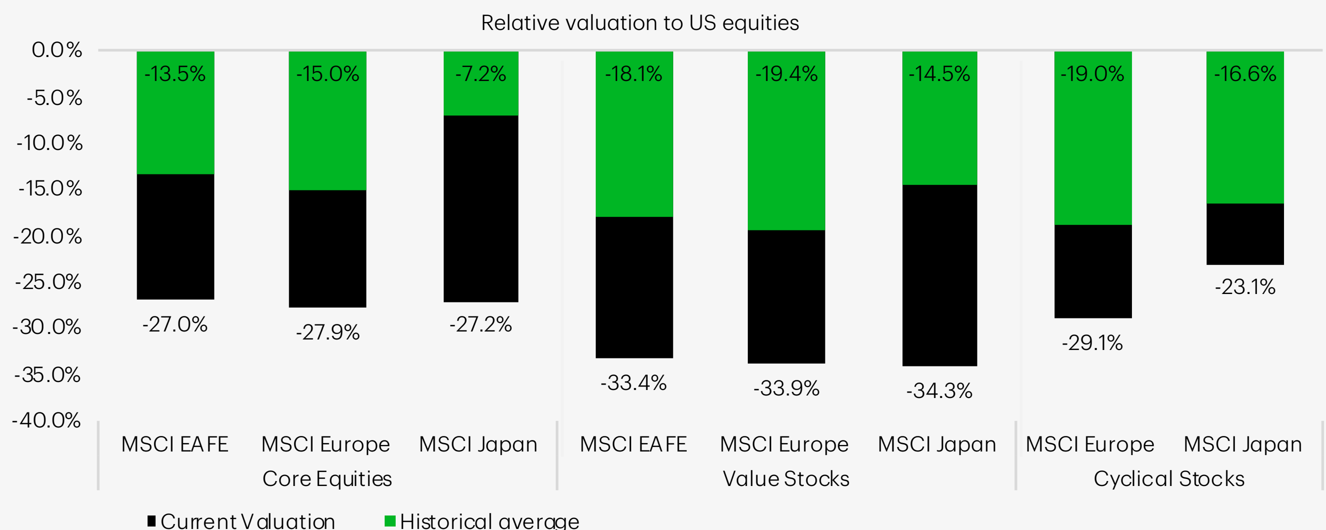
Source: Bloomberg Finance LP as of September 30, 2021

seen in North American markets since the March 2020 correction (Figure 6). In short, we think there is more room for appreciation in international equities through multiple expansion.

This quarter, the European Central Bank maintained its accommodative stance by adopting the Fed's "average inflation" targeting measure, which allows inflation to overshoot the traditional 2% ceiling in order to achieve a true average. This should give the ECB more flexibility to maintain accommodative policy. The ECB has already begun to trim emergency bond purchases. However, we believe ECB's tapering program will be slower and smaller than the U.S. because it will prioritize economic recovery, which has been slower. This should provide further support to European equities to appreciate from here on.

What's more, many of the risks that clouded European equities over the past decade have now cleared. Post-Brexit and the signing of the 750-billion-euro European Financial Stability Fund, the risk of European disintegration is much smaller. The stability fund has only just started to disburse its capital, leaving Europe with adequate room for more stimulus. In addition, the fiscal deficit (as a percentage of GDP) for the euro area is much lower, at 10.1%, than that of the U.S. (18.7%), Japan (14.2%) and Canada (19.9%). The newly elected German government, moreover, is likely to support expansionary fiscal policy and a continued dovish stance by the ECB — both of which are expected to provide support to European equities.

Figure 6: International multiples expansion yet to come through



Source: Bloomberg Finance LP as of September 30, 2021

Another support comes from the European transition to an economy based not solely on manufacturing but also services, and this is being supported by the digitalization of businesses. We are seeing the same story unfold in emerging markets, which are now responsible for about a third of the world's top appreciating companies (Figure 7).

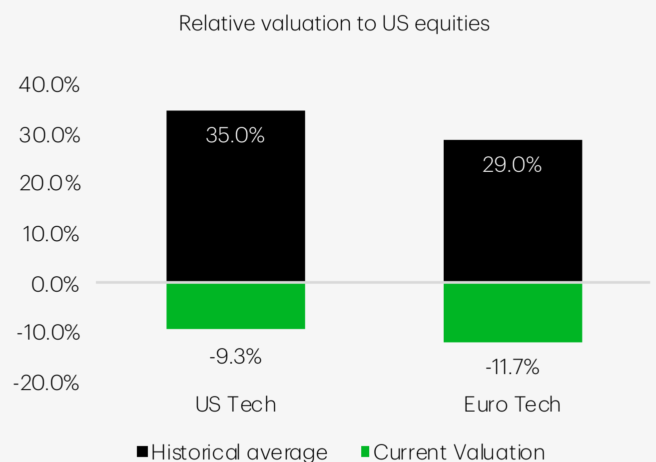
Emerging Markets: Bargains galore

It hasn't been a great year for emerging-market equities, which have come under pressure from the slow rollout of vaccines and concerns over rising Treasury yields. More recently, concerns have started to crop up around China, where the economy is slowing, authorities are cracking down on tech companies, and real estate giant Evergrande is on the verge of collapse. No surprise, then, that after outperforming global equities by 2.5 percentage points in 2020, EM equities were by the end of the quarter underperforming by 12 percentage points. Chinese equities alone have been responsible for over 60% of that decline.

Investors can take some comfort in the knowledge that EM equities, after such a poor performance, are now trading at one of the highest discounts seen over the past 10 years relative to global equities. The recovery rally observed in developed markets hasn't yet played out in the emerging markets, providing attractive opportunities, albeit with higher risk given the ongoing headwinds.

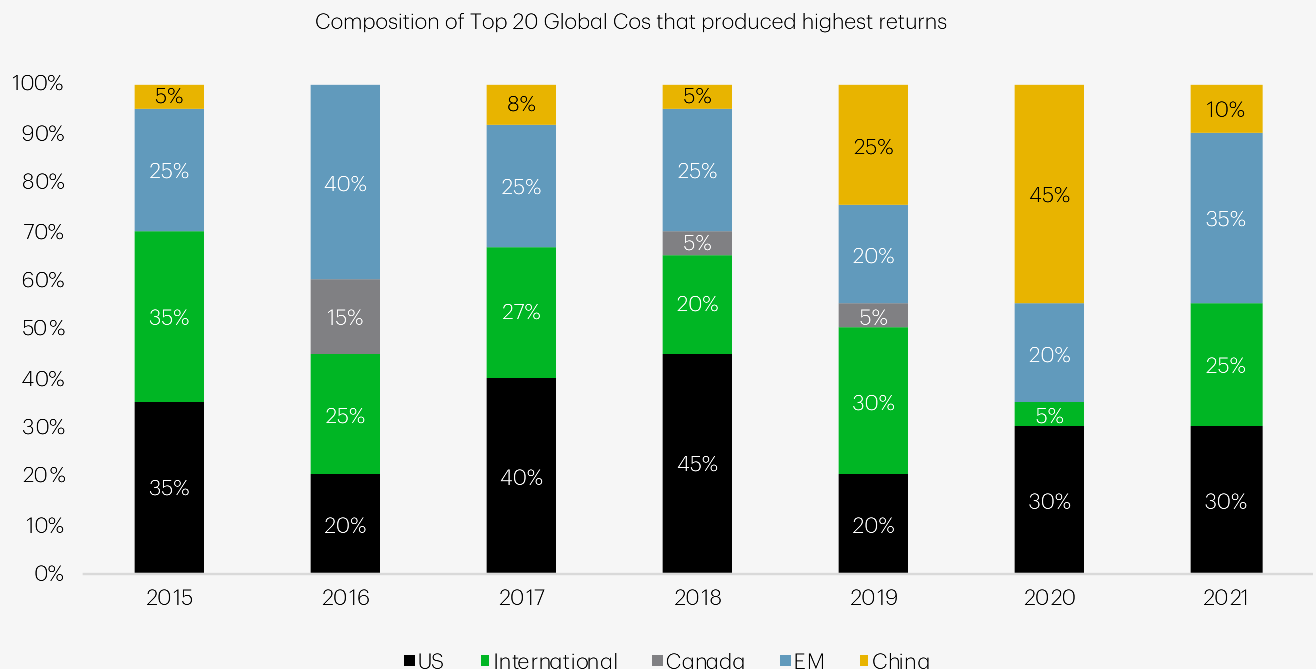
For Chinese tech companies, at least, much of the regulatory risks should now be priced in, given significant discounts to U.S. and European tech stocks (Figure 8). We expect the gradual transition of the Chinese economy to be increasingly driven by technological innovation, and ongoing structural reforms combined with the rising purchasing power of a growing middle class, should provide a relatively positive backdrop over the longer horizon. The Chinese market's significant underperformance relative to U.S. equities may present attractive value entry points longer-term, but in the interim, we believe a moderate de-risking of Chinese equities is prudent.

Figure 8: Chinese tech trading at massive discounts



Source: Bloomberg Finance LP as of September 30, 2021

Figure 7: Most of the top returning companies are outside the U.S.

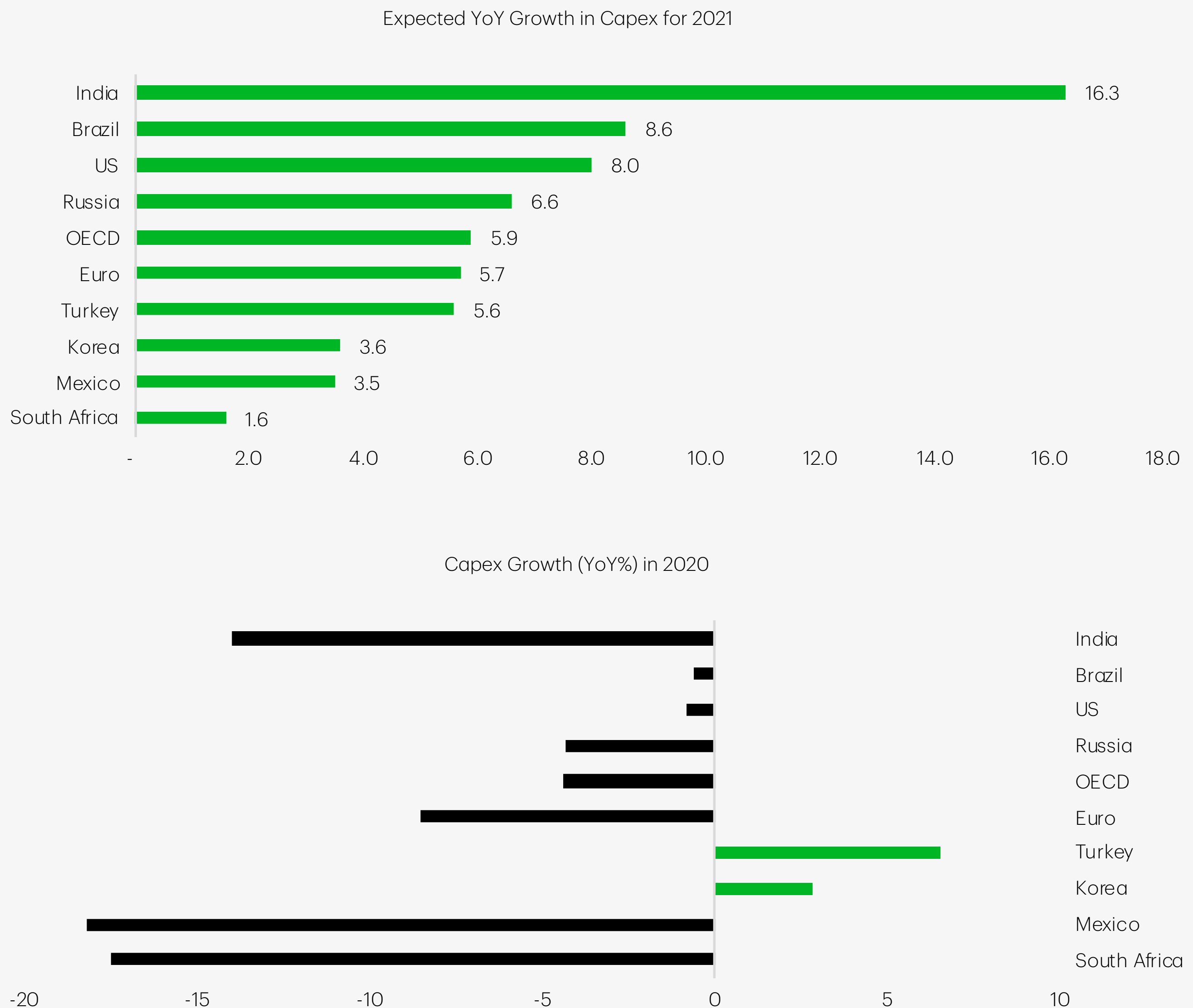


Source: Bloomberg Finance LP as of September 30, 2021

With the spread of the delta variant now subsiding in emerging-market nations, we expect the economic recovery to rejuvenate, especially in places like India, Brazil and South Africa, which struggled with the pandemic during the first half of 2021. Apart from the rebound in economic activity, we believe the rise in commodity prices (due to supply constraints) and the economic rebound in developed markets, combined with new infrastructure programs and capital expenditure (capex) plans, provide support to emerging-market equities.

Most countries are expected to see a significant rise in capex this year (Figure 9), and some of that growth is expected to extend to 2022 as well. In their role as suppliers to the developed world, emerging markets stand to benefit from an uptick in capital spending in developed markets. The economic growth forecast for emerging-market nations and China remain the strongest for 2022. This, combined with attractive valuations, should provide attractive returns over the longer-term, albeit with higher risk in the interim. □

Figure 9: Increased capex plans to boost EM revenue growth



Source: Bloomberg Finance LP as of September 30, 2021

Outlook on Real Assets

Modest Overweight

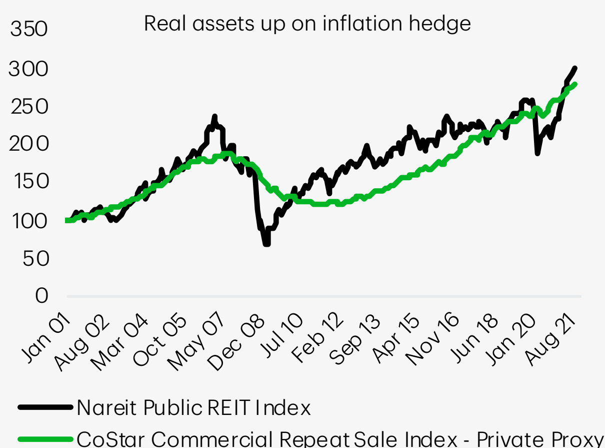
More than just recovery

The Canadian economy hit another critical milestone on the road to recovery with employment returning to pre-pandemic levels. Retail sales have also shot past levels recorded 18 months ago aided by higher household income and savings. Likewise, and mirroring the broader economy, the value of real assets has not only recovered but shot up to record highs (Figure 1).

In fact, investors are now buying land because the most attractive pre-built assets have already been purchased. In the first three quarters of 2021, investors shovelled $9.9 billion (bn) into land purchases in Canada. That already exceeds the previous record of $9.1bn for all of 2020 (Figure 2). Industrial and residential account for 75% of land purchases, as buyers in the market opt to develop from the ground up.

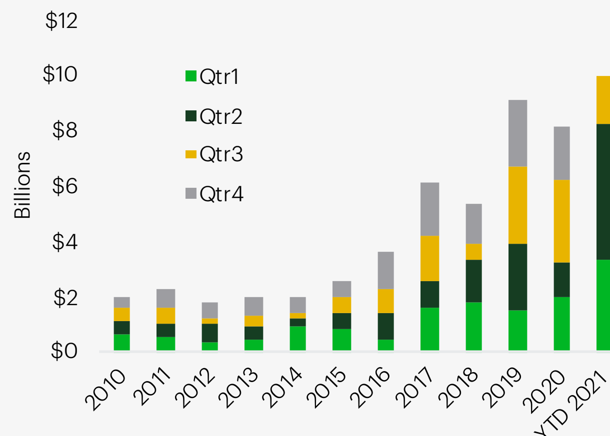
One persistent concern, however, is the threat of inflation. On the positive side, revenues from real assets have kept up with inflation through turnover re-pricing (which means landlords are able to charge new tenants market rates) as well as landlords building in consumer price index allowances into rental prices. On the cost side, asset managers have kept debt levels relatively consistent throughout the pandemic and have taken advantage of record low interest rates to restructure their debt and lock in lower rates for longer (Figure 3).

Figure 1: Real assets post record highs



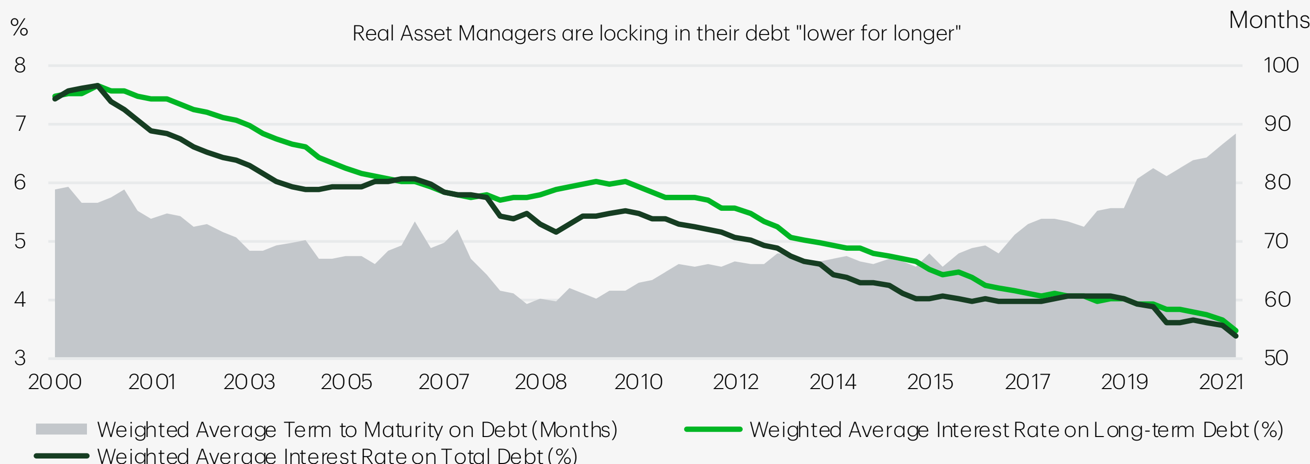
Source: Nariet, CoStar, TD Wealth, as of September 2021

Figure 2: Historical land Investment



Source: JLL Valuations Advisory, RCA, RealNet, Grettel Network, Commercial Edge, CoStar, as of Q3 2021

Figure 3: Real asset managers lock in lower rates



Source: S&P Capital IQ Pro, Nareit T-Tracker, as of September 2021

Real asset managers also happen to borrow big to fund asset purchases, and as such benefit from inflation because the value of money outstanding decreases over time. For example, if we assume inflation is 5% each year and the asset manager borrows $1000 at zero interest, after five years the real value of the debt owed is only $774. The higher the inflation the faster debt deflates. This means the borrower would be better off delaying payment and letting inflation gradually erode debt owing (Figure 4).

Ironically, this principal works for real asset managers as well as governments and it works especially well when the interest rate is less than the rate of inflation. Entities that borrow heavily, like real asset managers and governments, are more than happy to lock in current low interest rates, extend maturities to avoid interest rate risk, and let inflation deflate their debts.

Given the inflationary environment, TD Wealth maintains a modest overweight stance on real assets. Both public and private real assets have exceeded pre-pandemic valuations on the strength of improving fundamentals across all sectors and accommodative fiscal and monetary policy.

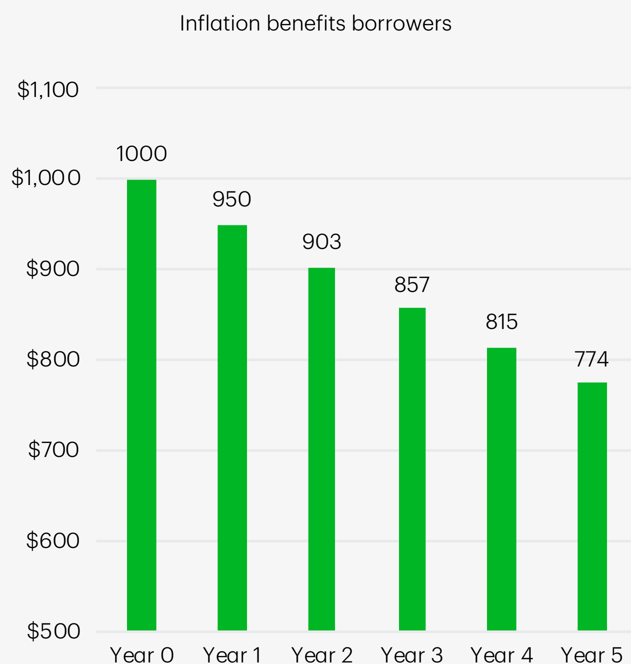
We believe real assets remain a key allocation within portfolios, offering protection against inflation and providing real returns to investors.

Industrial Real Estate

After a record setting Q2, the Canadian industrial real estate sector continues to establish new precedents with vacancies dipping to 2.0% and average asking rent per square foot topping $10 nationally. Competition remains fierce for distribution and logistics warehouses as surging demand for goods overwhelms the existing available infrastructure. Nearly half of Canada's major markets—Toronto, London, Vancouver, and the Waterloo region—have a vacancy rate of 0.9% or less meaning they have effectively run out of industrial space to rent. Tenants have been bidding higher than asking rents for limited available space. (Figure 5).

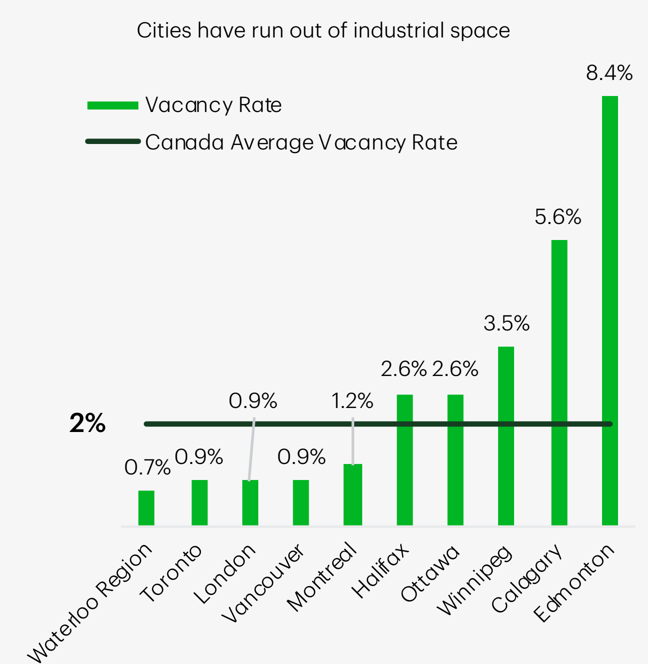
Developers are responding to demand with a pipeline of 34 million sq. ft. in industrial space under construction–an all-time high. That said, we expect a market imbalance through 2022 and into 2023 because this record level of construction only represents about 1.8% of existing industrial stock and planned completions for 2022 have already been 63.4% pre-leased. Moreover, demand is expected to remain robust because the eventual easing of supply shortages will be offset by the structural shift towards online sales which typically requires three times the amount of warehouse space as a traditional brick and mortar strategy. To illustrate, the pandemic boosted the e-commerce portion of retail sales to 18% worldwide. This is expected to increase to 21.8% by 2024, according to Colliers research.

Figure 4: Inflation diminishes the value of debt



Source: TD Wealth as of September 2021

Figure 5: Industrial space crunch



Source: CBRE Research, as of Q3 2021

Office Real Estate

The Canadian office real estate sector continues its slow path to recovery in Q3, after grinding to a low point of -5.8MM sq. ft. in quarterly absorptions in Q4 2020. For the first time since the pandemic started, four out of the 10 Canadian markets recorded positive net absorptions. While vacancies hit 15.7% nationally in Q1 2021, a figure not seen since 1994, there have been continued improvements in net absorption (or space taken off the market by tenants preparing a post-pandemic return to the office) to -1.1mn sq. ft. (Figure 6).

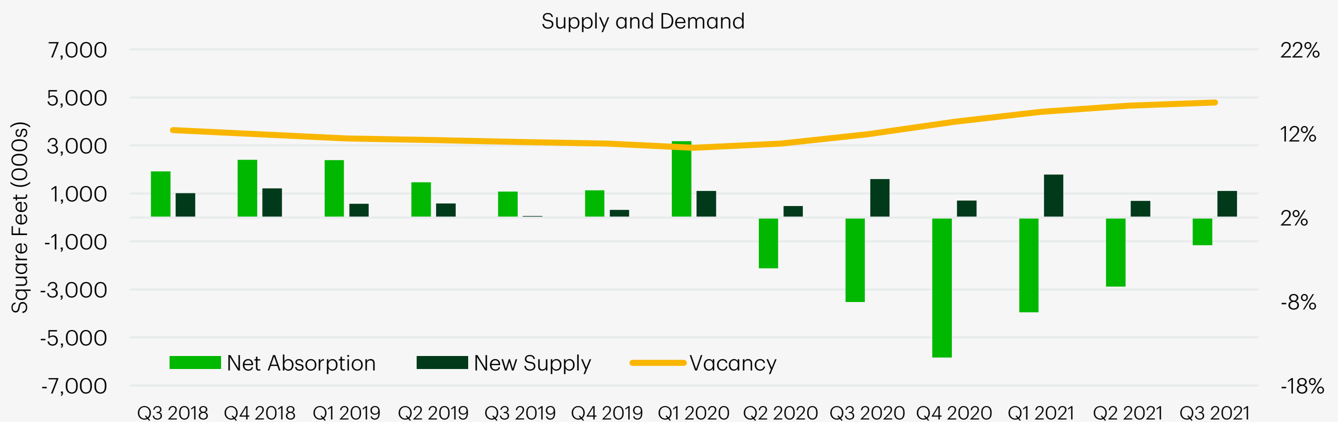
The availability of sub-leased space continues to trend downwards. Some tenants are taking space off the market to reserve for their own use. Other spaces are reverting to landlords in preparation for a return to the office, which was planned for the September-October 2021 but has been delayed into 2022 over concerns regarding the spread of the Covid-19 Delta variant. As a result of lower supply, the average rent ticked up to $21.04 per sq. ft. nationally: landlords preferred to hold net asking prices firm and negotiate over net effective rent on items such as rent-free months, out-of-term early occupancy, and tenant allowance.

Retail Real Estate

The retail sector is finally seeing signs of stability. Retail sales have rebounded. Total consumer spending between March 2020 and May 2021 was just under 2% of the amount projected before the pandemic (Figure 7).

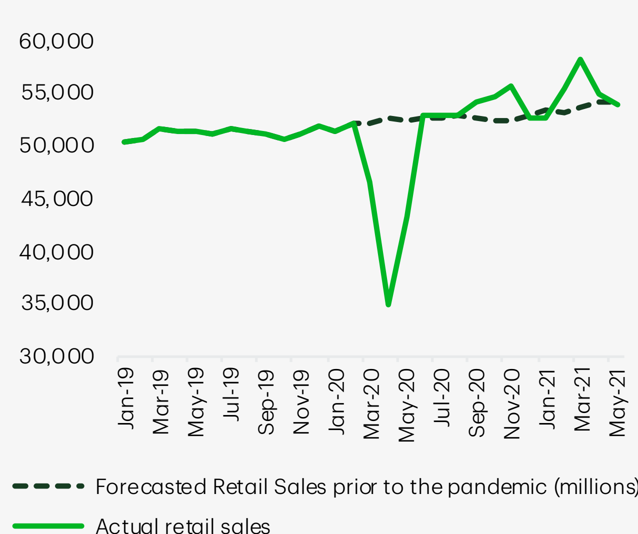
While lockdowns curbed spending, particularly since non-essential retail was closed, consumers flocked back to stores to "eager to spend", each time lockdowns were lifted. As a result, retailers expect to adjust their space requirements by less than 1% going forward (Figure 8). Only retailers in enclosed malls are planning to trim their retail unit sizes as a result of the pandemic and shifting consumer preferences.

Figure 6: Office continues to slowly recover despite record vacancies



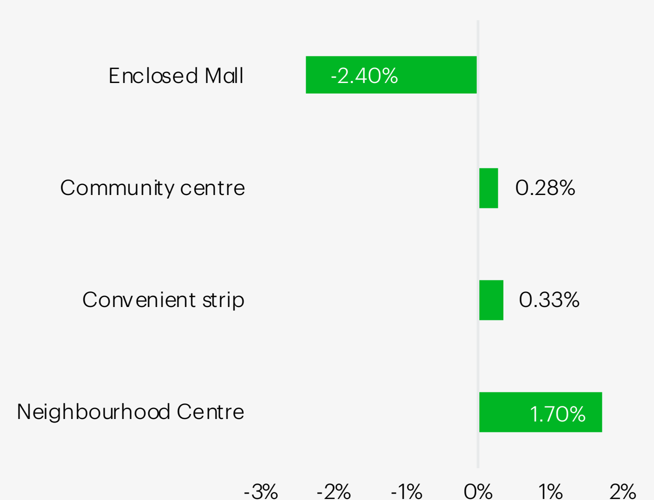
Source: CBRE, as of Q3 2021

Figure 7: Forecast and annual retail sales



Source: Colliers, as of Q3 2021

Figure 8: Anticipated change in size of retail units



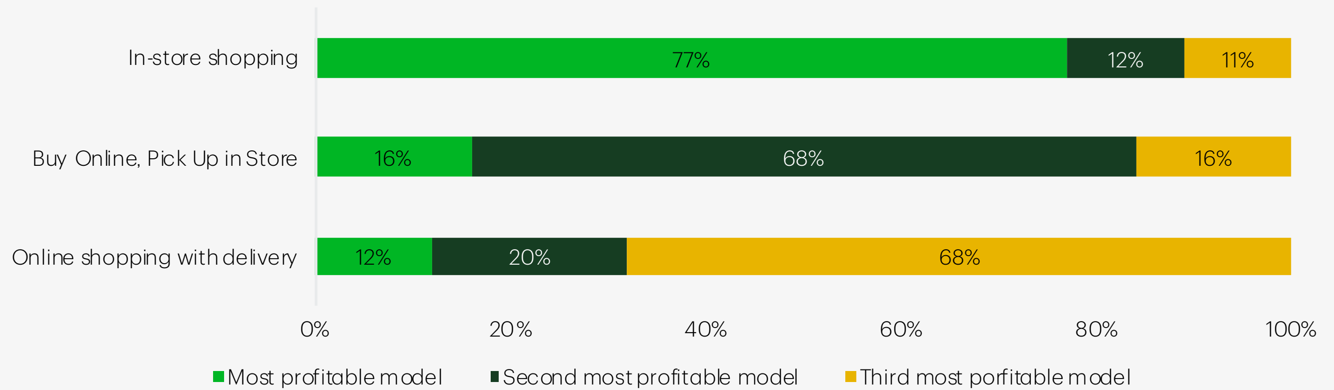
Source: Colliers as of Q3 2021

Not all retail will recover equally, however. There were some clear lessons from the pandemic. For example, according to McKinsey & Co., e-commerce penetration for groceries remains around 25%, representing one of the lowest penetration rates among retail categories; people overwhelmingly prefer to shop for produce in person. As a result, enclosed malls with grocery stores enjoyed a 7% increase in foot traffic relative to enclosed malls without. Retailers themselves have offered more e-commerce options, with the portion of retailers selling online doubling to 58% over the past 18 months. As noted previously, this has increased demand for industrial and warehousing space. That said, retailers overwhelmingly prefer in-store shopping as the most profitable stream, hence the preference to maintain similar floorspace (Figure 9). While e-commerce provides better reach and ease for the consumer, the cost of return logistics are also much higher (Figure 10).

Residential Real Estate

Investment flows into residential real estate are on pace to hit $5.3bn in H1 2021, topping the record 2020 flows (Figure 11).

Figure 9: Profitability for different retail models



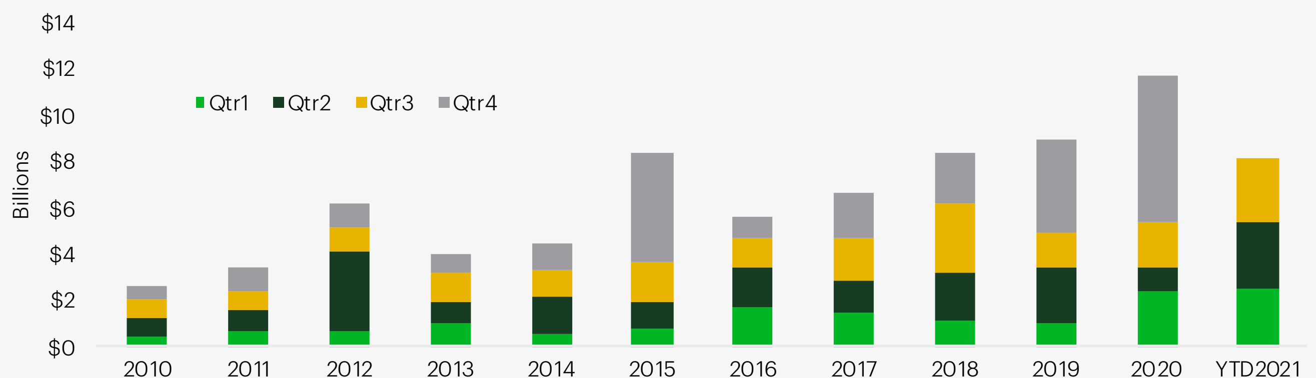
Source: Colliers as of Q3 2021

Figure 10: Return Logistics for different retail models

Bricks & Mortar	Issue	E-Commerce
5% to 10%	Return as % of Sales	20% to 40%
N/A	Return Shipping	Yes
Before Return	Assessment of Return	After Returned
N/A or Limited	Labour & Space Dedicated	Dedicated (20% Cost Increase)
Minimal	Depreciation / Time Cost	Significant but Varied
Minimal	Returns End up in Landfill	Up to 25% of Returns
<10% of Sale Price	Cost of Return	>50% of Sale Price

Colliers as of Q3 2021

Figure 11: Historical multi-family investment



Source: RCA, RealNet, Gettel Network, Commercial Edge, CoStar, JLL Valuations Advisory, as of Q2 2021. All transactions >$5mn, direct and entity level. Excludes residential lots and residential occupier purchases.

Given the scarcity of existing builds, investors have turned to development to access the sector. As a result, residential and industrial users made up the bulk of land purchases for development so far this year. As discussed in previous editions, immigration is a big driver of residential returns and to make up for the lost immigration year due to the pandemic, the federal government has upped its immigration targets to 1.3 million for 2021-2023.

The Canadian residential market continues to moderate, after a record setting H1 2021, with the sales to listing ratio (a measure of supply and demand) edging down to 72.4% in August 2021 compared to 73.6% the previous month. That said, the long-term sales to listing ratio of 54% indicates it's still a seller's market (Figure 12). Low supply continues to push prices higher, with the average sales price increasing 13.3% for the 12 months ending August.

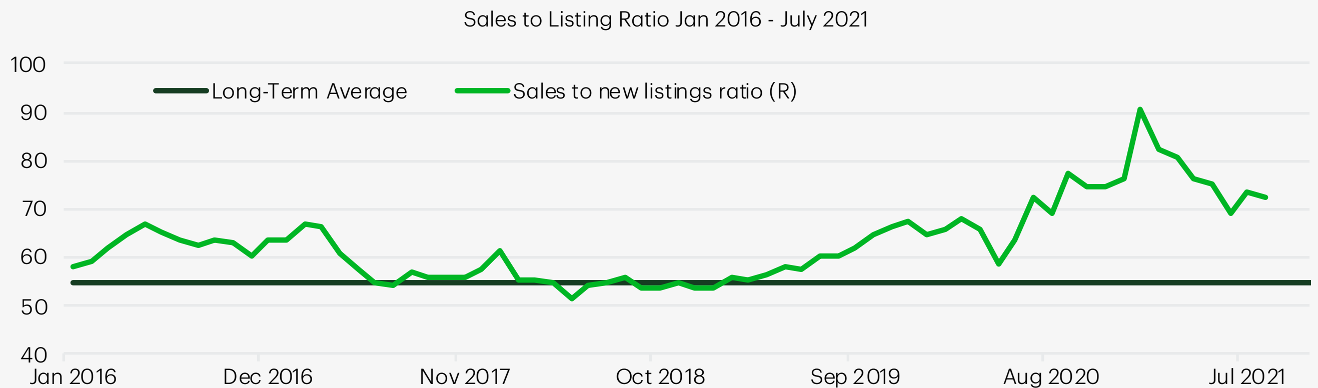
On the rental side, the latest national report from Rentals.ca showed that the average rent nationally in September 2021 was $1769, virtually identical to September of last year. Rent prices continued to climb back slowly from a multi-year low of $1,675 per month in April 2021. As demand returns for rental housing, landlords are pulling back on concessions and inducements offered throughout the pandemic such as free Wi-FI or tv, or months of free rent, a further sign of a strengthening market.

Infrastructure Assets

After a strong Q2 in fundraising, Q3 was quiet, coming below the seven-year quarterly average of $22bn (Figure 13). Returns, however, have made a strong recovery. According to Prequin Ltd., the one-year internal rate of return (IRR) to March 2021 was 13.4% for the asset class, which more than made up for losses in 2020.

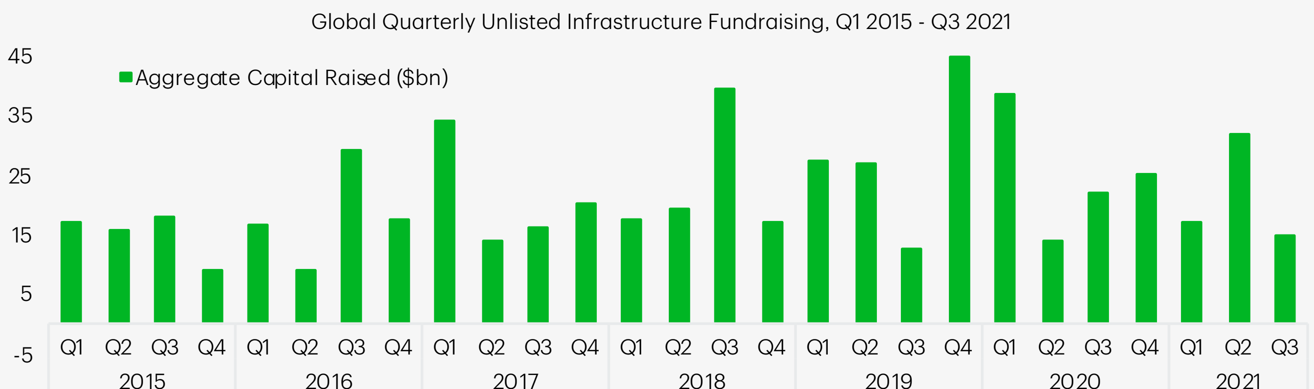
Infrastructure also outperforms all other alternative asset classes, except private equity, over the three- and five-year horizons, only losing out to real estate over the 10-year horizon. As a sign of a maturing asset class, secondaries infrastructure funds, which typically operate within the realm of private equity, has increased from virtually zero to 1.8% of infrastructure assets under management. Secondaries infrastructure funds are funds which buy shares of established infrastructure funds from its unit holder, offering liquidity in exchange for a sizable discount to buy the fund. □

Figure 12: It's still a seller's market



Source: CREA, as of September 2021

Figure 13: Infrastructure fundraising below 7-yr qtly average



Source: Preqin, as of October 2021

Outlook on Currencies

Global Drivers – A choppy path ahead

Mazen Issa Senior FX Strategist, TD Securities; Mark McCormick, Global Head of FX Strategy

The market continues to manage the competing themes of decelerating global growth and central bank stimulus withdrawal. Stagflation has been the major buzzword in the past few months, highlighting the rise of inflation coupled with slowing global growth dynamics. As the market worries about higher rates and decelerating growth, we think a fine line exists between stagflation and inflation, and expect the question of 'are we dealing with stagflation or reflation' will remain top of mind in the near term.

We see merit in the debate around the supply-side shock but still see major central banks, like the Fed, looking through the rise in prices. This will be an evolving process the longer that 'supply disruptions' persist however, as the argument of 'transitory' becomes more difficult to buy into when some business surveys now suggest that they are expected to last well into 2022. That could make it more difficult to contain inflation expectations.

Global financial conditions should still remain quite supportive. Still, not all central banks have responded to the rise in prices uniformly, creating some gaps in carry and relative monetary policy. Indeed, some central banks like the Bank of England have signaled that they must act soon (likely by November and before QE ends this year) to prevent inflation expectations from becoming unhinged. This would make the BOE the third central bank after Norges and the RBNZ to tighten. Several within the Emerging Markets space have also pushed ahead with hikes already.

One lynchpin of the global reflation trade is the universal steepening of yield curves. That is highly correlated with rising equities and commodities, and a weaker U.S. dollar, and lower volatility. The Fed's management of real rates has been key. Markets can handle higher rates and inflation when validated with growth, and PMIs remain firmly above 50. There's plenty of uncertainty around how the world flushes out over the next few quarters. But, with the Fed set to taper, the real rates market loses a major force in suppressing 10yr real rates (the Fed is a large buyer of 10y TIPS equivalents).

This does not mean that equity markets will need to weaken. We rather think that the hurdle to upset the risk apple is rather high. The correlation profiles between 10yr US nominals, breaks and the S&P 500 have been weakening over a 12m rolling basis on weekly returns. While real rates remain modestly negative, that suggests that it will take a sizable upward adjustment in rates to modestly unsettle risk sentiment.

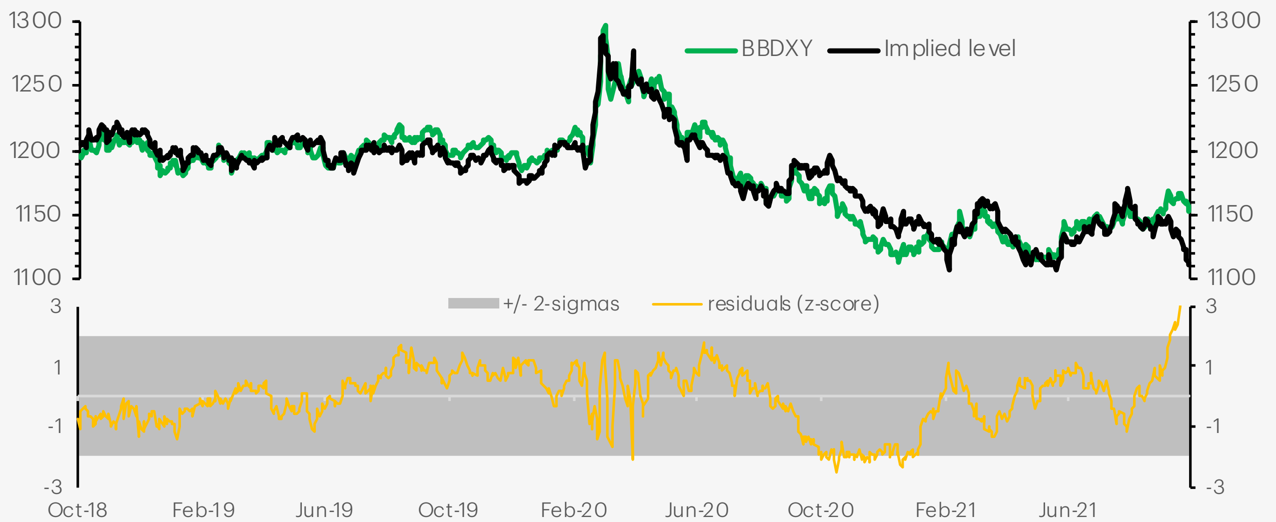
The world of central banking is changing and fixed income markets are adjusting swiftly. This is in large part driven by fears that inflation will be more persistent than central banks have suggested. Markets have attacked various curves where policy expectations have been particularly suppressed. We think much of this move is mature however. We nonetheless believe that market pricing for roughly two Fed hikes late next year is likely to remain sticky with inflation projected to remain elevated in the coming months.

The U.S. dollar outlook hinges on a mix of global growth expectations, real rates, risk sentiment, and global financial conditions. Figure 1 shows the broad U.S. dollar against our global PCA factors (we extract four), and it shows the dollar now holds the steepest premium seen over the past few years, trading at a near 3-sigma premium. While we expect some of this premium to erode, we ultimately expect that the USD will trade on a firmer footing into year-end particularly against the funding currencies like EUR, JPY and CHF – all of which should struggle against a backdrop of higher US bond yields. It also helps that since the GFC in 2008, the USD has tended to trade with a firmer tone in November and early December after seasonal weakness in late October.

Commodities have been a significant driver of FX over the past few months. A cross-sectional regression shows an r-squared of 44% - which is higher than most of the macro drivers.

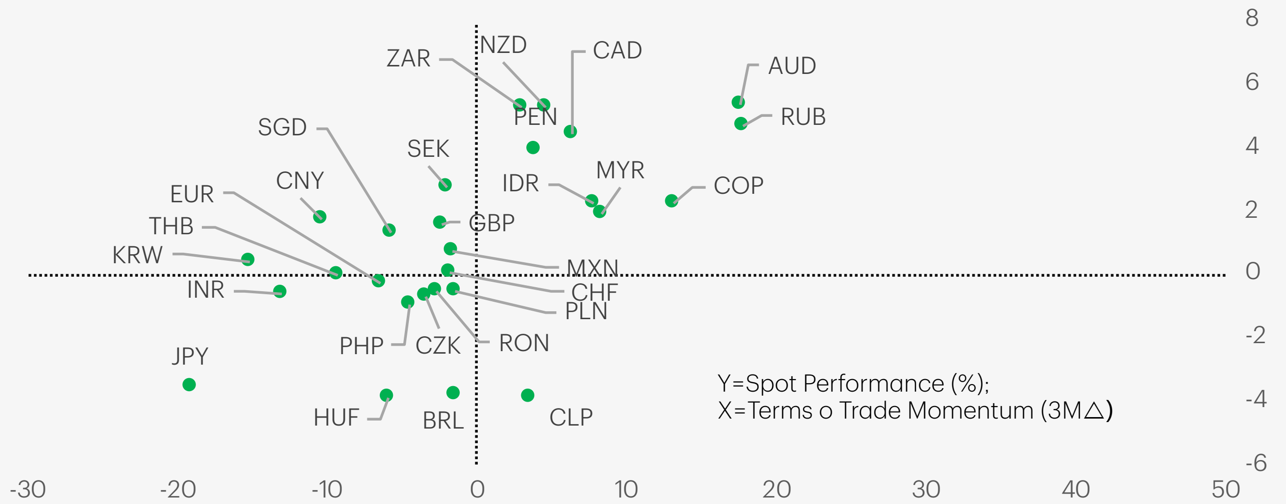
It raises the question of how much commodity news has been priced in. When we look at the combination of sensitivity of commodities and real rates, we see that if real rates and commodities keep rising, we can expect further pressure on many G10 currencies. However, the dollar bloc looks more insulated, where the Canadian dollar would likely perform well on crosses. Growth is a crucial equalizer here. The CAD has immensely benefited from a rising beta to oil prices. Our commodity strategists expect WTI oil to average around $85 in the current and following quarters. Our positioning dashboard points to the CAD as being the largest build of longs out of 30 major currencies. Taken in conjunction with what we think is a largely matured repricing in the front-end, the good news looks to be in the CAD price unless the BoC hints at a hike in Q1-2022 (which we think is a heroic assumption).

Figure 1: How much global macro risks are priced into the U.S. dollar?



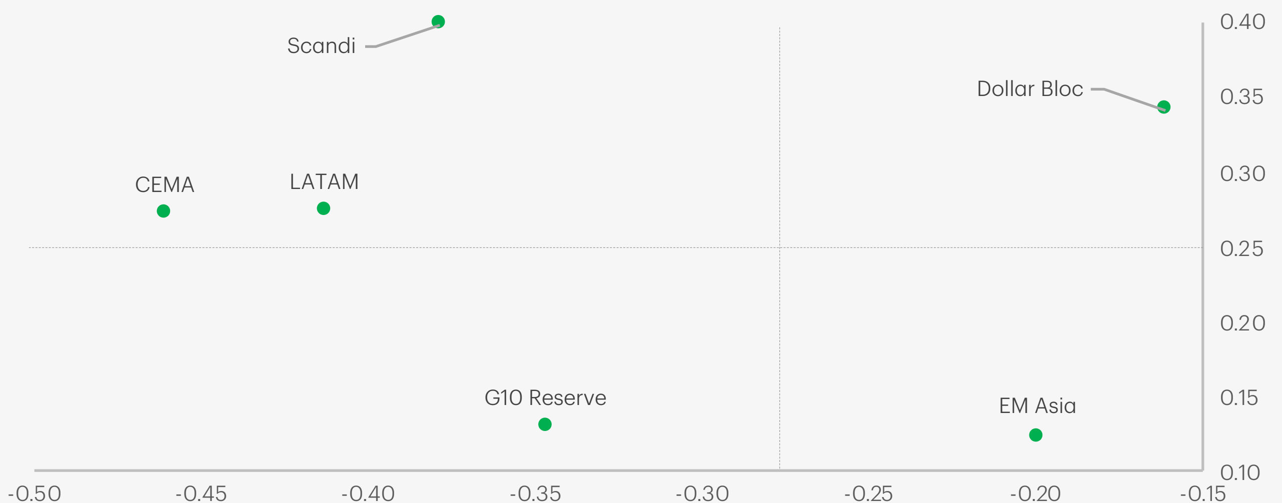
Three year regression of BDXY to the first four factors of our Global Macro PCA framework. Source: Macrobond, TD Securities as of October 20, 2021.

Figure 2: Terms of trade has been a critical driver of FX performance



2mm changes in spot and level of implied 3m yield | r-squared = 44%. Source: Macrobond, TD Securities as of October 20,2021.

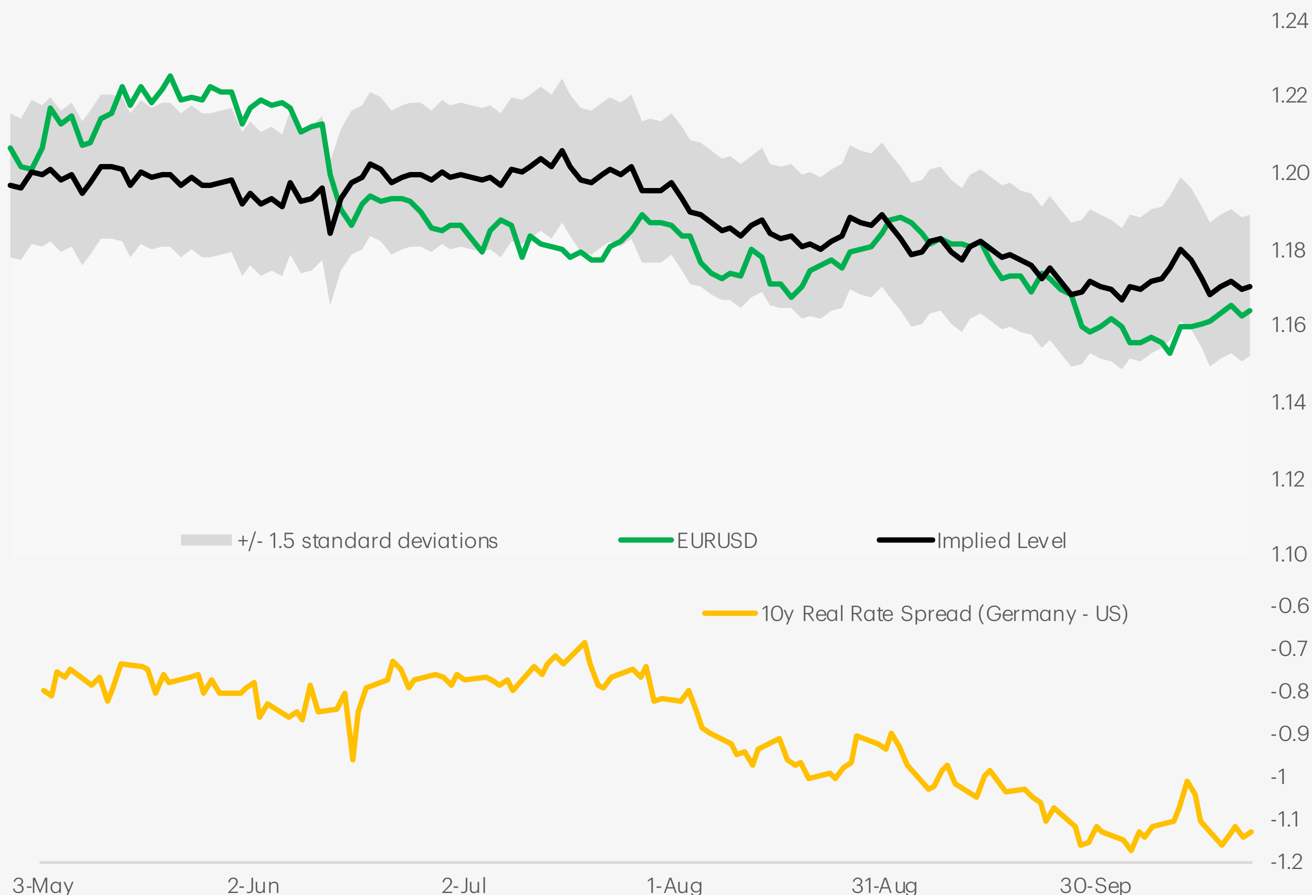
Figure 3: FX Sensitivity to U.S. 10y real rate and commodity prices



FX beta (% based on the 1-week rate of change on a 1yr rolling forward window) to a 10bps change in the US 10yr real rate (X-axis) and 1% change in commodity prices (Y-axis) Source: Macrobond, TD Securities as of October 20, 2021.

The Euro has been relatively weak over the summer months, likely on the back of concerns about stagflation and Fed repricing. Thematically speaking, the EUR and other funders for that matter, are likely to have a hard time clawing back against the dollar. The reality is that the central banks for these currencies are expected to grossly lag the Fed. Global trade volumes have also decelerated at a faster rate than we were expecting. Unless this stabilizes, then the pro-cyclical features of the EUR will remain severely challenged as carry dynamics work against it. □

Figure 4: What's EUR to USD fair value to real rate spreads?



Regression starts on 01/01/2021 | r-squared = 51%. Source: Macrobond, TD Securities as of October 20, 2021.

Figure 5: G10 Currency Forecasts

	Spot	2021				2022			
	Oct 20, 2021	Q1 A	Q2 A	Q3 F	Q4 F	Q1 F	Q2 F	Q3 F	Q4 F
USD/JPY	114	111	111	111	111	112	113	114	104
EUR/USD	1.17	1.17	1.19	1.16	1.15	1.18	1.16	1.17	1.18
GBP/USD	1.38	1.38	1.38	1.36	1.39	1.42	1.42	1.43	1.44
USD/CHF	0.92	0.94	0.93	0.93	0.94	0.95	0.96	0.95	0.95
USD/CAD	1.23	1.26	1.24	1.26	1.24	1.22	1.23	1.24	1.26
AUD/USD	0.75	0.76	0.75	0.73	0.75	0.76	0.77	0.77	0.76
NZD/USD	0.72	0.70	0.70	0.70	0.71	0.73	0.73	0.73	0.73
EUR/NOK	9.68	10.03	10.20	10.10	10.00	9.90	9.80	9.80	9.80
EUR/SEK	10.00	10.24	10.14	10.15	9.95	9.75	9.60	9.60	9.50
DXY	93.6	93.2	92.4	94.0	94.0	92.2	93.0	93.0	92.5

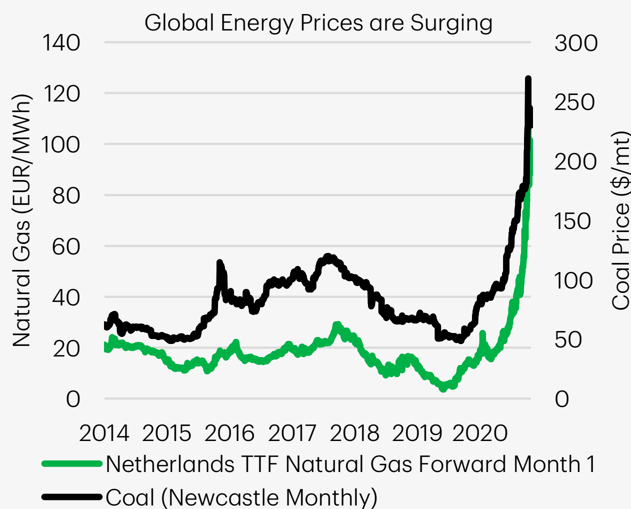
Source: TD Securities as of October 20, 2021

Outlook on Commodities

Far reaching implications of an energy crisis

As climate change and the associated quest to decarbonize our economies become top political and economic priorities, the global energy transition is a significant event for investors looking at the commodities complex. The global energy transition will have far-reaching investment implications. The magnitude of the ongoing crisis should not be underestimated, with coal and natural gas driving nearly 50% of the world's energy consumption. Today's energy crisis features a global power crunch fueling a sharp rise in prices, with European natural gas surging above US$200/bbl in oil-equivalent terms in September. The rise stems from the combination of extreme weather and policy failures, the implications of which are now expanding beyond a global coal shortage towards natural gas, and are increasingly driving oil and fuel prices.

Figure 1: Global energy prices have surged

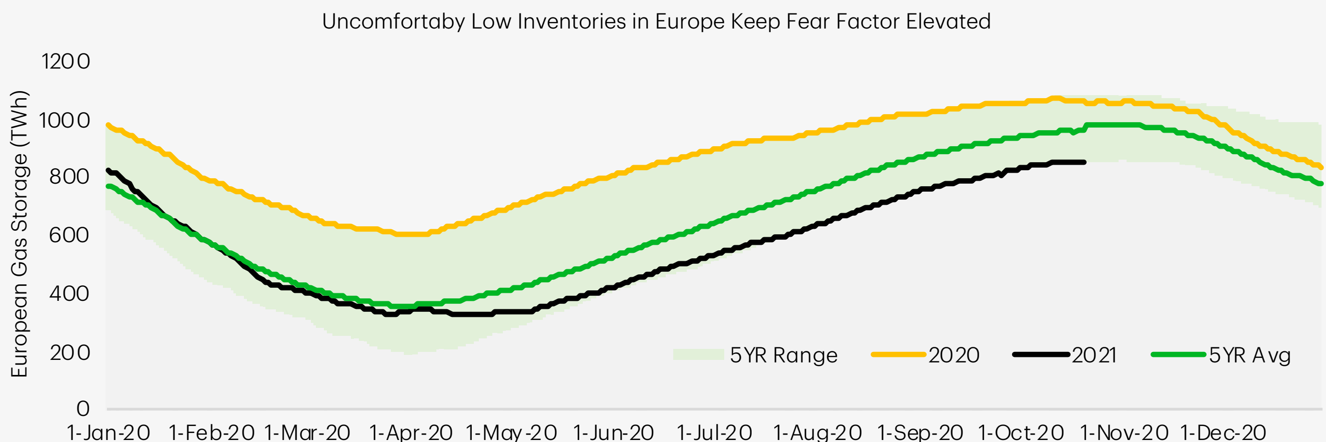


Source: TD Wealth, Bloomberg Finance LP as of October 20, 2021

China has been battling power shortages for months as power generation has been hampered by coal shortages and extreme droughts, which have dented hydropower generation at a time when the nation has developed an enormous appetite for power. This has also resulted in industries in China switching from coal to natural gas, which has helped to drive natural gas prices higher. At the same time, the polar vertex earlier this year and subsequently warm summer have conspired to drain gas inventories ahead of winter. High carbon prices, low wind output, droughts in Northern Europe and nuclear outages have also contributed to higher power prices, but natural gas has overwhelmingly driven the concurrent rise in power. As we head into winter with inventory levels for these fuels far below historical averages, competition is growing between European and Asian nations to secure supplies.

A cold winter increasingly threatens to price-out industries, expanding the implications of the current power crisis beyond energy-intensive sectors as it spreads further into downstream sectors. Conversely, a mild winter would also see prices collapse and ultimately would further disincentivize investment into future production. However, we argue that investment is required to prevent a more significant energy crisis on the horizon.

Figure 2: Low inventories in Europe likely to keep prices elevated



Source: TD Wealth, Bloomberg Finance LP as of October 20, 2021

Beyond Today's Crisis

Humans have an insatiable appetite for energy. This has ultimately fueled the secular rise in energy consumption per capita, which has maintained an upward trajectory in carbon emissions for multiple decades – despite the discussion of the impact of emissions on the climate beginning more than 59 years ago.

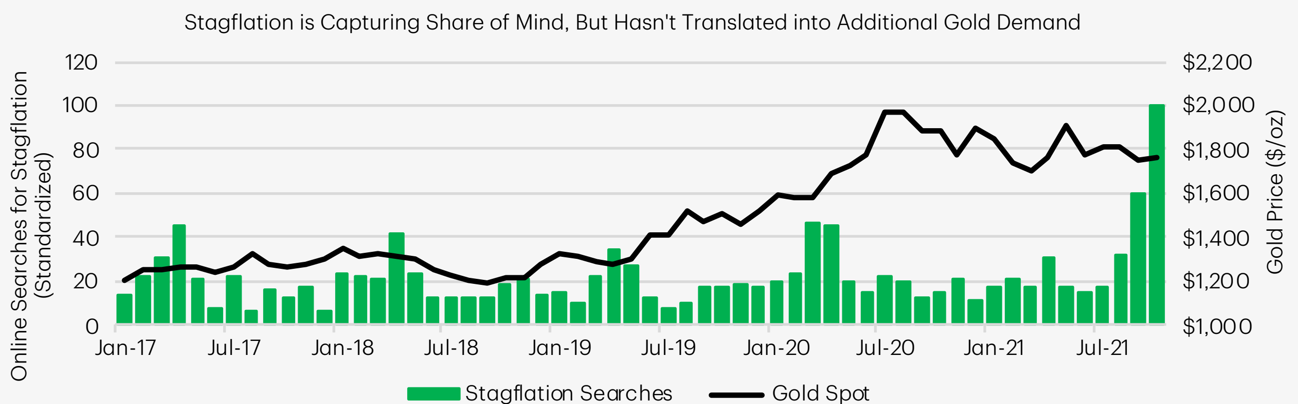
Yet, as climate change and the associated quest to decarbonize our economies become top political and economic priorities, the U.S., Japan, and Europe have all committed to a net zero carbon objective by 2050, along with China by 2060. The pandemic has accelerated the transition, with consumers demanding corporate action across industries and capital allocators are forced to focus on the issue. Supply growth in the oil market is likely to be naturally constrained by the industry, outpacing the decline in demand over the next decade.

The ongoing energy crisis illustrates the potential for a commodity supercycle to form in the coming decades, with far-reaching implications. While price action at the start of this year more likely reflected an extraordinary cyclical recovery than a supercycle, we may have since observed the first reverberations of the decarbonization theme on asset prices. Yet, the impact of this potential supercycle in oil markets will differ from historical analogs, as price pressures will arise as a result of supply declining at a faster clip than demand, in contrast to previous cycles in which growing demand led prices higher.

Implications for base metals - Metals supply risk are increasing as the global energy crisis escalates. Recently, a European zinc smelter's announcement of production curtailments tied to rising energy costs sparked a buying frenzy across the base metals complex, as consumers stockpile supplies ahead of a potentially devastating winter season. Copper's cash-to-three month spread has rallied to a decade high, indicating a substantial premium associated with prices for immediate delivery. While upside flows from CTA trend followers are also likely exacerbating the backwardation, the extreme backwardation is more likely tied to critically low inventories and the associated convenience of having the physical metal. China has been battling power shortages for months and as a result Beijing has forced energy-intensive industries to curtail capacity in to ease some of burden on the power system. This has resulted in significant disruptions to aluminum and steel production. We expect this pressure will continue over the near term. With the Beijing 2022 Winter Olympics soon approaching, officials may also consider imposing curbs on pollutive industries, with the dual considerations of keeping the air clean and for conserving energy for residential uses.

Implications for precious metals - Gold is an ideal hedge against rising stagflationary winds. Continued ETF liquidations over the last several months reflect the poor sentiment that is pervasive across the precious metals complex. The market's intense focus on pricing the Fed's exit has ignored rising stagflationary risks brewing on the horizon, with speculators offloading their length onto central banks and physical buyers. In fact, while stagflation has caputured share of mind, with the story-count of stagflation-themed news rising to unprecedented levels, it has yet to translate into additional gold demand. However, as the global energy crisis intensifies, reasons to own the yellow metal are also growing more compelling, particularly as a cold winter could send energy prices astronomically higher, potentially pricing-out industries and fueling price asymmetries in markets. □

Figure 3: Stagflation concerns have not translated into gold demand, yet



Source: TD Securities, Bloomberg Finance L.P., as of October 20, 2021

Risk Environment

Turning Point

Risk conditions continued to decline in Q3 after peaking earlier this year. Several factors weighed on risk appetite as the quarter ended: the Fed's surprising indications for a more aggressive tapering and sooner than expected interest rate hikes, the slowdown in government spending, the deceleration in economic growth, and the persistent inflationary pressures driven by global supply and labour constraints.

Worldwide energy shortfalls have pumped up prices for coal, natural gas, electricity, and oil just ahead of the Northern Hemisphere winter, adding to the supply crunch and inflation risk. Meanwhile, there is concern about the spillover effect of the ongoing debt crisis in China. On the pandemic front, the Delta variant is spreading at a rapid pace, particularly amongst the large proportion of unvaccinated people in the U.S. and other countries. There is a real sense that the U.S. economy has transitioned toward a mid- to late-stage economic cycle characterized by slowing growth, rising inflation, and tighter fiscal, monetary and credit conditions. Markets experienced a modest selloff at the end of Q3 as investors reassessed macroeconomic conditions.

Our risk regime indicators showed that risk conditions weakened in Q3, extending the trend that started in Q2. Monetary policy and inflation indicators, as well as investor risk sentiment were the biggest contributors to the downtrend. U.S. economic growth, business and financial conditions also slipped. Economic growth remains strong due to a robust recovery in consumer and business activities. The outlook for business activities and corporate earnings also remains above average, although investors expect earnings growth to slow after multiple quarters of higher than expected results. And while the Fed may start easing fiscal and monetary support, the level of accommodation remains high as policy makers try to engineer a fulsome recovery for the real economy as well as financial assets.

At the end of Q3, our overall market risk regime score stood at +0.8 (down from +1.0 at the end of Q2), which indicates a resilient regime that should be favourable for risk assets. Weaker growth, higher inflation, tighter monetary policy, and lower investor risk appetite were the main drivers behind the decline in the risk score. The inflation score slipped further from -0.8 standard deviation above the historical norm to -1.0 standard deviation below and the monetary policy score remained almost unchanged at +0.8 standard deviation above the norm. However, risk sentiment tumbled from +1.2 in

Understanding the Market Risk Environment*

Our philosophy is to build resilient portfolios that are well diversified across key factors and don't depend on any single market environment to generate returns. However, from a strategic asset allocation perspective, we monitor and assess macro conditions so we can decide, within defined parameters, when to de-risk a portfolio. We use a broad set of indicators based on business, investor and analyst expectations to gauge risk conditions. Most of these are leading indicators and are, therefore, forward-looking. This helps us understand not only past events but what investors expect in the near term, which should already be reflected in asset and security prices.

We use this risk-management framework to take advantage of how asset classes behave under different risk scenarios and make strategic risk allocation decisions in portfolios over the intermediate to longer term. Risk assets such as stocks and credit tend to perform well during more resilient environments, while safe-haven assets such as government bonds tend to outperform in more fragile environments. We advise against using this framework to make short-term tactical bets or market-timing decisions. Over the longer term, the main determinant of portfolio returns for most clients will likely be asset allocation rather than any other active portfolio decisions.

Figure 1 highlights the data that inform our understanding of the current risk environment. There are 11 broad indicators (all based on the U.S. market) ranging from macroeconomic variables — productivity growth, inflation, employment and foreign trade account — to variables representing key stakeholders such as consumer spending, housing conditions, business conditions and financial conditions. We also include high-level policy variables — government and fiscal policy, and monetary policy — as well as measures of market and investor sentiment that are driven by expectations and indicate forward-looking risk appetite. We use a standardized approach that makes it possible to aggregate across indicators to assess the current value of each indicator and compare it against recent trends and long-term history. Because each indicator is measured in different units, we use their historical dispersions to convert distinct indicators to Z-Score values. This allows us to compare indicators on a consistent basis.

*See Figure 4 for a complete table of the indicators and the Appendix for Glossary of Terms.

Q2 to +0.4, as investors turned bearish. Fiscal policy indicators also retreated due to fiscal retrenchment and continuing challenges to the Biden administration's fiscal agenda. On the positive side, we saw stronger data for employment and housing. Overall, and despite the present threat of Covid-19 in developed and emerging markets, risk conditions continue to support risk assets.

Fiscal and monetary policies are central to all macro-environments and they continue to drive our aggregate risk regime score. They remain in resilient territory with a combined score of about +1.2 (unchanged from Q2), which means policies are accommodative, despite expectations that tightening is on the way. Even when we strip out the impact of fiscal and monetary support, the risk environment from Q1 to the end of Q3 remains resilient. Excluding fiscal and monetary accommodation, the risk regime score slipped to +0.7 which is 0.2 standard deviation lower than with fiscal and monetary policy. This score reflects an above average, or resilient, risk environment. The variation (or lack thereof) between the two scores suggests risk conditions are resilient on their own and not as dependent on fiscal and monetary support as they were in H2 2020. This is particularly the case for monetary policy because investors have already priced in a tightening cycle starting in late 2021. Despite this change, fiscal and monetary policy still underpin the overall risk regime so any unexpected shock from either would have a significant impact on investor risk sentiment. In September, we saw the impact of an unexpected shift in policy after the Fed said it could start scaling back asset purchases as soon as November and finish by mid-2022. This faster than anticipated pace partly triggered the September market selloff.

Figure 1: Market Risk Regime Scores

Indicator	Overall Condition	Current	Jun-21	Mar-21	Dec-20	Sep-20
Economic Growth	Strong	1.5	2.2	2.0	(2.6)	(3.0)
Inflation	Weak	(0.9)	(0.8)	0.6	(0.4)	(0.9)
Employment	Strong	0.9	0.3	0.4	0.3	0.2
Consumer	Strong	0.6	0.6	0.3	(0.1)	0.2
Housing	Strong	1.5	1.3	1.2	1.1	0.8
Business Conditions	Strong	0.9	1.1	1.0	0.0	(0.4)
Financial Conditions	Strong	0.7	0.8	0.7	0.5	(0.1)
Foreign Trade	Neutral	(0.4)	(0.3)	(0.3)	0.0	0.0
Fiscal Policy	Accomodative	1.5	1.8	1.9	1.9	2.2
Monetary Policy	Accomodative	0.8	0.7	3.2	3.4	3.3
Risk Sentiment	Neutral	0.5	1.2	1.3	0.9	0.4
Risk Regime Score	Low Risk	0.8	1.0	1.4	0.8	0.6
Risk Regime Score (excl. Fiscal/ Monetary Policy)	Low Risk	0.7	0.9	1.0	(0.1)	(0.4)

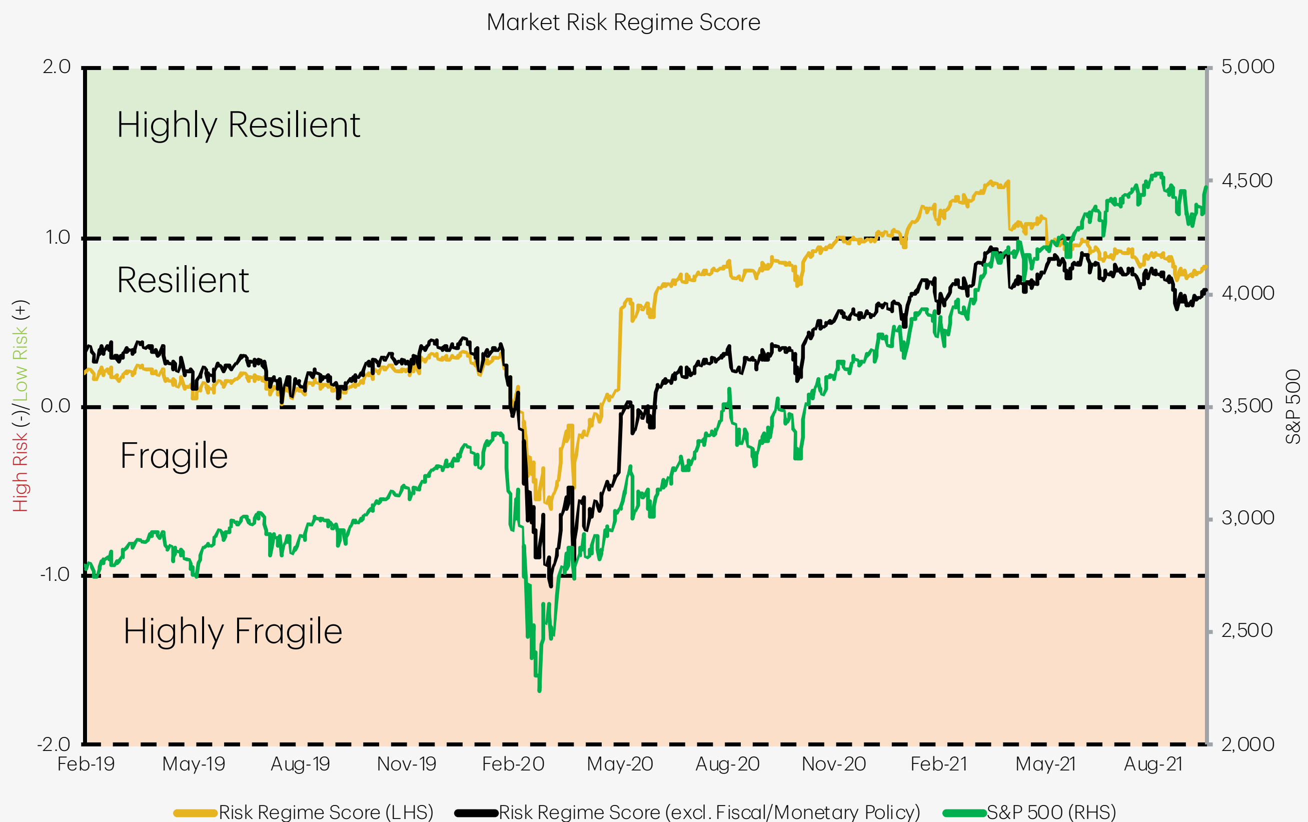
Scores represent number of standard deviations away from long-term average.
Source: Bloomberg Finance LP and TD Wealth as of September 30, 2021.

Figure 2 shows the risk regime score since the start of 2019, before the pandemic. We see the collapse from well above 0 (which indicates a stable environment) to a low of -0.73 in April 2020 during the early days of the pandemic when markets were in a tailspin. The risk score climbed from +0.80 at the end of 2020 to +1.40 at the end of Q1 when economic growth expectations and risk appetite peaked. The score drifted back down to +1.0 in Q2 as expectations for growth and inflation weakened and higher interest rates became a closer reality. The risk score slipped again in Q3 while equities rallied. This rally ended in late September with the selloff in both equities and bonds. The decline in the risk score anticipated the growing market fragility of Q3 that ended with a market downturn.

Since Q2 2020, the risk environment has steadily improved and equity markets have progressively recorded new highs. Both growth and inflation have consistently surprised on the upside. Q2 and Q3 marked a shift in this trend. The Fed switched to a more hawkish stance on monetary policy. At the same time, investors have started to price in slowing economic and corporate earnings growth as well as greater inflation risk. The steeper U.S. Treasury yield curve reflects these changes. However, even if the Fed starts gradually reducing new asset purchases before year end it's not, at this stage, trimming the US$8.5tn in existing holdings on its balance sheet. The Fed is maintaining a loose monetary policy and markets don't expect rate hikes until the fourth quarter of 2022. Of course, if unemployment continues to fall and inflation remains intractable, tapering and tightening could accelerate.

While the risk environment remains resilient and supportive for risk assets, we expect more dispersion in performance across and within asset classes so it's important to size active decisions appropriately and maintain risk-factor diversification.

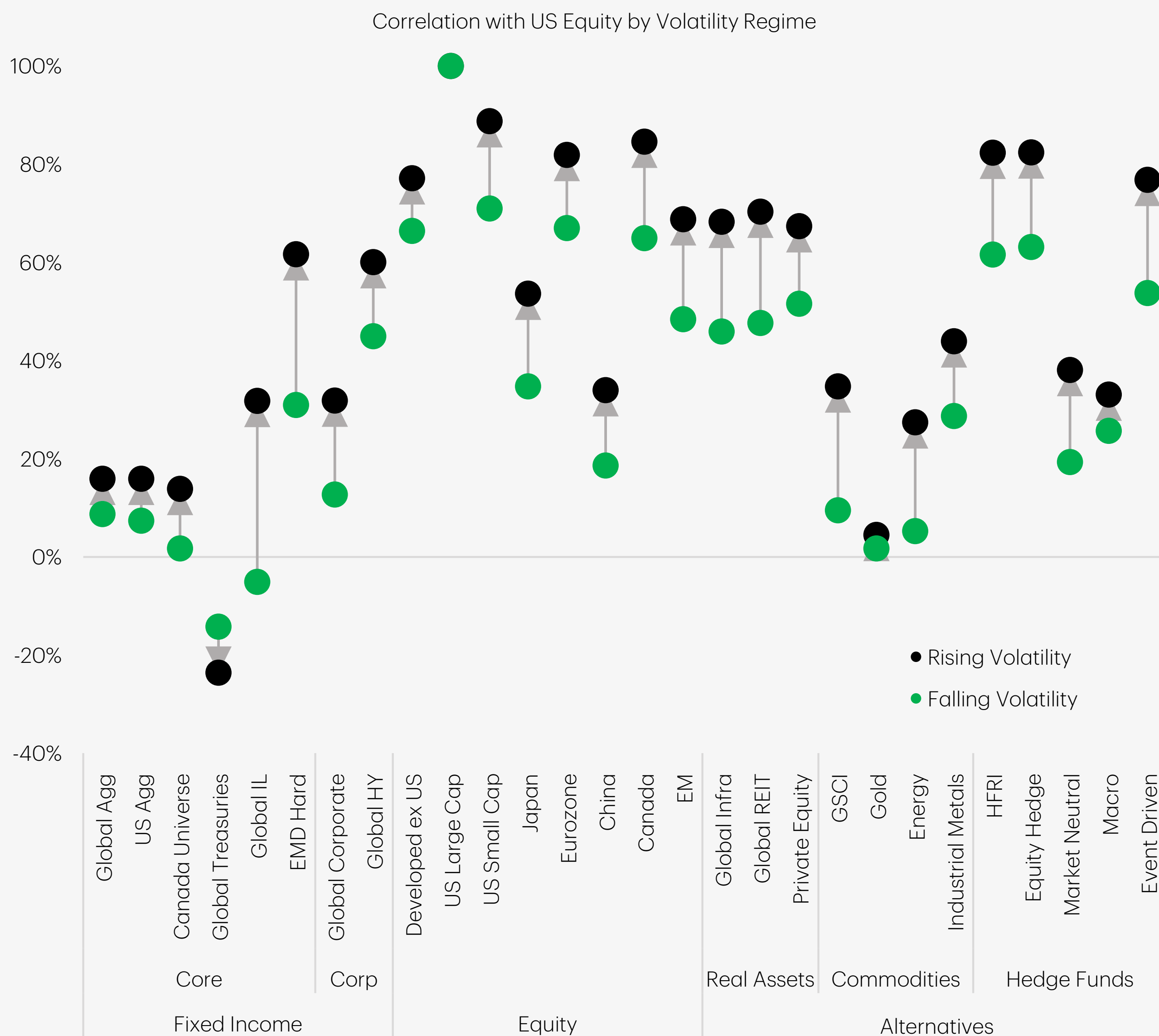
Figure 2: Historical Risk Regime Scores



Note: scores represent number of standard deviations away from long-term average
Source: TD Wealth and Bloomberg Finance L.P., as of September 30, 2021

Despite the September selloff, fixed income and equity markets are still susceptible to shocks because valuations remain elevated and market fragility is on the rise. Credit is still a key risk at current spreads. Credit risk appetite remains strong: spreads for investment grade and sub-investment grade credit have tumbled below pre-pandemic levels despite record new issuances in 2020 and 2021 year to date. The massive new corporate bond supply was met with enthusiastic demand given the dearth of yield in higher quality bond markets. Central bank support and the liquidity infusion has reduced credit spread volatility and ensured that downgrades, in the case of investment grade, and the default rate, in the case of sub-investment grade credit, have fallen below pre-pandemic levels. That said, we recommend investors proceed with caution as there is inherent risk in extreme credit spreads (both high and low). While the likelihood of downgrades and defaults are reduced during economic recovery, some investors remain concerned that the easy funding environment has increased the number of companies that are highly susceptible to rate hikes and deterioration in the economic environment, especially as we enter the later stages of the economic cycle. From November 2020 and into Q1, stock markets shifted toward cyclical sectors such as financials and energy and rotated out of more expensive growth stocks and into cheaper value stocks. In Q2 and Q3 investors reversed this trend and piled back into growth and higher quality stocks. In late Q3 and early Q4 we witnessed a rotation back toward value alongside the surge in bond yields.

Figure 3a: Correlations by Volatility Regime



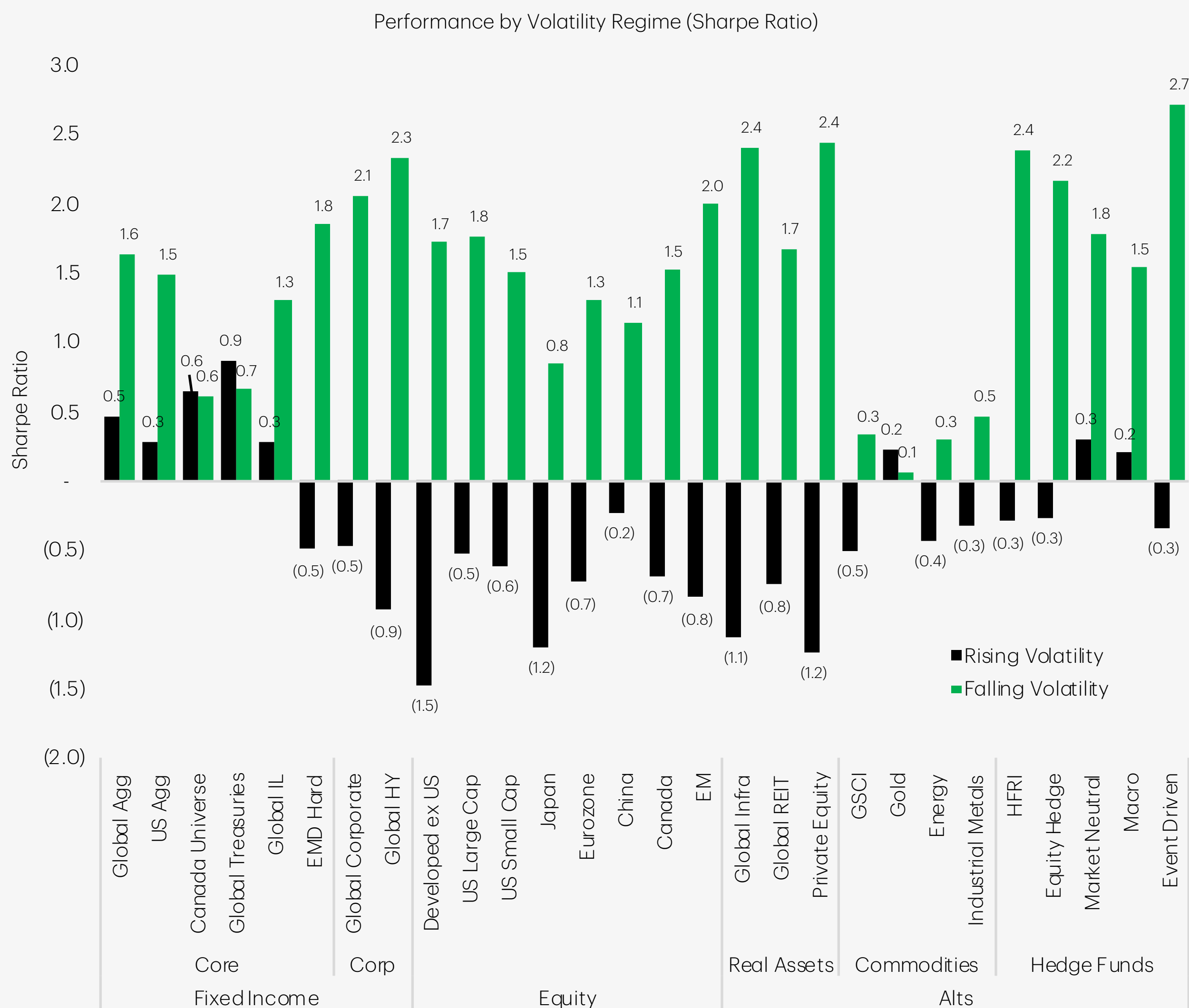
Source: TD Wealth and Bloomberg Finance L.P., as of September 30, 2021

While a resilient risk regime is one where greater risk tends to generate greater return, it's important to maintain *true* diversification and budget risk according to the risk environment. In Figure 3, we use VIX (implied volatility for U.S. stocks) and MOVE (implied volatility for U.S. Treasuries) indices going back to 1990 and the Sharpe ratio to show asset class performance under different volatility regimes. The Sharpe ratios for risk assets are all negative in a rising volatility environment and almost all positive when volatility is falling. This indicates that risk assets perform well in a falling volatility regime and perform poorly when volatility is rising and the opposite is true for safe-haven assets. It also suggests investors receive no reward for bearing risk in an environment when volatility is rising. Hence, it's beneficial to de-risk in such an environment. The opposite is true in a falling volatility environment when investors are compensated for taking risk.

In July and August, VIX and MOVE indices were tracking well below their historical averages, which is favourable for risk assets all else being equal. Markets experienced a volatility shock in September, as both fixed income and equity sold off. It's helpful to assess asset correlation in environments with rising and falling volatility. We can see in Figure 3 that growth assets such as equities, corporate bonds, and commodities provide modest diversification benefits when markets are calm, but diversification diminishes in a stressed environment. The only reliable diversification assets are government bonds and even there, valuations are so elevated that their diversification potential has waned as we saw in September when government bonds and equities sold off in parallel. This demonstrates the importance of building portfolios that are resilient across all risk regimes.

For a full breakdown of all indicators see the following section.

Figure 3b: Asset Performances by Volatility Regime



Source: TD Wealth and Bloomberg Finance L.P., as of September 30, 2021

Figure 4: Market Risk Regime Indicators

U.S. Macro Indicators	Measure	Current (October 15, 2021)	12M Ago	LT Average*	Z-Score	Current State	Trend	Overall Condition
Economic Growth	Real GDP Growth (qoq %, saar)	6.7	33.8	2.2	0.8	Positive	Improving	Strong
	Real GDP Growth (YoY %)	12.2	(2.9)	2.1	4.1			
	Real GDP Economic Forecast (YoY %)	5.8	3.7	2.1	1.5			
Inflation	Headline CPI	5.4	1.4	2.2	2.5	Negative	Worsening	Weak
	Core CPI	4.0	1.7	2.0	3.7			
	Headline PCE	4.3	1.4	1.9	2.5			
	Core PCE	3.6	1.6	1.8	4.1			
	CPI Forecast (YoY %)	4.4	2.0	2.2	1.7			
	PCE Forecast (YoY %)	3.2	1.7	2.0	2.2			
	10YR Breakeven Inflation	2.6	1.7	2.0	1.4			
Employment	Unemployment Rate (%)	4.8	7.8	5.9	(0.6)	Neutral	Improving	Strong
	Initial Jobless Claims (000s)	293	833	401	(0.3)			
	Wage Growth (yoy %)	4.6	4.8	2.7	1.9			
Consumer	Consumer Confidence (1985=100)	109.3	101.3	95.2	0.5	Positive	Improving	Strong
	UofM Consumer Sentiment	72.8	80.4	86.2	(1.1)			
	Consumer Spending (MoM %)	0.8	1.5	0.4	0.4			
	Household Consumption (YoY%)	12.0	41.4	2.6	1.5			
	Household Consumption Forecasts (YoY%)	7.8	4.0	2.6	0.8			
	Household Debt to Disposable Income (%)	85.4	92.8	108.8	(1.8)			
	Household Debt Service Ratio (%)	8.2	9.2	11.1	(2.2)			
Housing	S&P/Case-Shiller Composite (YoY %)	20.0	6.7	4.7	1.8	Positive	Improving	Strong
	Home Builders Index	76.0	83.0	51.3	1.2			
Business Conditions	Capacity Utilization (%)	76.4	72.1	77.0	(0.2)	Positive	Improving	Strong
	Industrial Production (YoY %)	6.0	(6.6)	0.8	1.1			
	Industrial Production Forecasts (YoY%)	5.8	4.0	0.8	1.1			
	Private Investment (YoY%)	(3.9)	82.1	3.5	(0.5)			
	Private Investment Forecasts (YoY%)	8.3	6.3	3.5	0.3			
	12M EPS Forecasts (S&P 500)	204 (YoY: 20.9%)	135.0	98	2.8			
	Markit US Composite PMI	55.0	54.3	53.4	0.2			
	Markit US Manufacturing PMI	60.7	53.2	53.7	1.2			
	Markit US Services PMI	54.9	54.6	53.5	0.2			
Financial/ Credit Conditions	3M LIBOR/OIS Spread (%)	0.05	0.13	0.26	(0.7)	Positive	Stable	Strong
	10Yr Treasury Yield (%)	1.57	0.73	3.31	(1.2)			
	10YR/3M Yield Spread (%)	1.53	0.64	1.64	(0.1)			
	10YR/2YR Yield Spread (%)	1.18	0.59	1.22	(0.1)			
	IG Credit Spread (% OAS)	0.81	1.20	1.42	(0.9)			
	HY Credit Spread (% OAS)	2.95	4.75	5.37	(1.0)			
	Net Debt to EBITDA (S&P 500)	111%	167%	281%	(1.2)			
	Financial Conditions Index (Bloomberg)	1.3	0.1	(0.4)	1.2			
	Financial Conditions Index (Chicago Fed)	(0.7)	(0.5)	(0.3)	(0.6)			
Foreign Trade	Current Account (% of GDP)	(3.2)	(2.6)	(3.3)	0.1	Positive	Worsening	Neutral
	Current Account Forecast (% GDP)	(3.4)	(2.5)	(3.3)	(0.1)			
	Trade-Weighted Broad Dollar (2006=100)	114.9	116.4	103.9	1.1			
Fiscal Policy	Budget Balance (% of GDP)	(11.7)	(14.8)	(4.0)	(1.9)	Positive	Worsening	Accomodative
	US Budget Balance Forecast (% GDP)	(13.4)	(9.8)	(4.0)	(2.3)			
	Government Spending (YoY %)	(2.0)	(2.1)	1.3	(1.2)			
	Government Spending Forecasts (YoY%)	1.0	0.9	1.3	(0.1)			
	Government Debt (% GDP)	100.1	79.2	55.5	2.2			
	Government Debt Forecasts (% GDP)	103.5	105.0	55.5	2.4			
Monetary Policy	Fed Funds Rate (%)	0.25	0.3	1.9	(0.8)	Positive	Stable	Accomodative
	Monetary Base (YoY %)	31.7	52.4	13.1	0.8			
	M1 Money Supply (YoY %)	16.5	341.3	21.3	(0.1)			
	M2 Money Supply (YoY %)	13.2	23.8	7.1	1.5			
Risk Sentiment	Implied Volatility - S&P 500	16.3	27.0	20.2	(0.5)	Neutral	Worsening	Neutral
	Implied Volatility - US Treasury	62.7	55.6	87.0	(0.8)			
	Implied Volatility - Oil	34.1	43.8	38.0	(0.2)			
	CBOE Equity Put/Call Ratio	0.5	0.5	0.6	(1.4)			
	Strategist Consensus (S&P 500)	4,466 (Change: 0%)	3,286	1,813	3.4			
	Retail Investor Bullish/Bearish Ratio	0.0	1.0	1.17	(3.1)			

	Z-Score	Current State	Trend	Overall Condition
Risk Regime Score	0.8	Positive	Worsening	Low Risk
Risk Regime Score (excl. Fiscal/Monetary Policy)	0.7	Positive	Worsening	Low Risk

Risk Regime Score: Below 0 means market conditions are riskier than average. Above 0 means coditions are less risky than average. *Long term average: since 1999 (or earliest data is available). Source: Bloomberg Finance L.P. and TD Wealth, as of September 30, 2021.

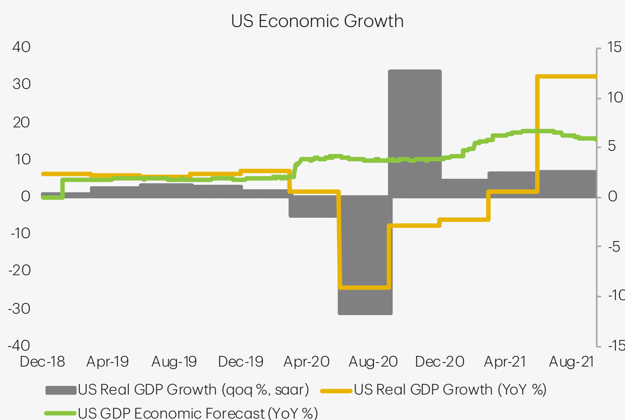
Economic Growth (Strong, Unchanged from Q2)

• U.S. real GDP continued to rebound in Q2, climbing at an annual rate of 6.7% as the economy reopened, business and consumer activities returned to normal and despite the pullback in stimulus payments and another wave of Covid-19. This growth is a modest improvement from the 6.4% estimated in Q1. The advance was driven by a 12% rise in consumer spending, which accounts for about 70% of economic activity. Stronger exports, which rose 7.6% in Q2 compared to a decline in Q1, also contributed, while the 7.1% gain in imports (which is subtracted from GDP) limited the increase. Business equipment investment was another key contributor, with a rise of 12.3% in Q2 compared to a year ago.

• Real GDP is expected to advance 5.9% in 2021 based on consensus forecasts. That's the highest level in about 40 years and less than the 6.4% forecast at the end of Q2. The consensus forecast is likely too aggressive given the recent deceleration in growth. The Fed downgraded its 2021 growth forecast to 5.9%, after upgrading it to 7.0% in June. Some strategists are forecasting growth even lower than 6% for the year.

• The decline in consensus forecasts for 2021 is consistent with the latest World Economic Outlook survey from the International Monetary Fund (IMF) released in October. The IMF projects U.S. economic growth will hit 6.0% in real terms (down from the 7.0% forecast in July), before moderating to 5.2% in 2022. The IMF still expects the U.S. to fare better than other developed economies, including the eurozone and Canada, which are expected to expand by 5.0% and 5.7% respectively.

Figure 5: Historical and Forecast U.S. Economic Growth



Source: Bloomberg Finance L.P., as of September 30, 2021

Inflation (Weak, Changed from Strong in Q2)

• U.S. Headline Consumer Price Index (CPI) remains elevated, rising 5.4% over the 12 months ending September 2021 (the highest annualized increase since 2008). This number is unchanged from the end of Q2, which indicates persistence. Core CPI inflation, which excludes food and energy, rose 4.0% for 12 months ending September 2021, compared with 4.5% for the same period ending June 30. This 4.0% core inflation remains the largest annualized increase since 1992. Recent increases in headline and core CPI are in line with expectations, which were revised upwards in Q3. Both CPI numbers are higher than their historical averages of about 2.0%.

• The main contributors to the surge in consumer price inflation are energy (up 25% year over year), household operations and furnishings, food, and shelter. Housing prices have shot up by double digits but this isn't reflected in broad CPI measures as housing is a lagging indicator. As such, recent CPI data likely understates price increases.

• The Fed's preferred measures of realized inflation, headline Personal Consumption Expenditure (PCE), rose to 4.3% for the 12 months to August 2021, up from 4.0% for the same period ending June 30. Core PCE remains elevated at 3.6% year over year (y/y), which is unchanged from Q2. Both are well above the Fed's 2.0% average inflation target and market expectations for PCE growth in 2021 which, at 3.1%, is higher than Q2.

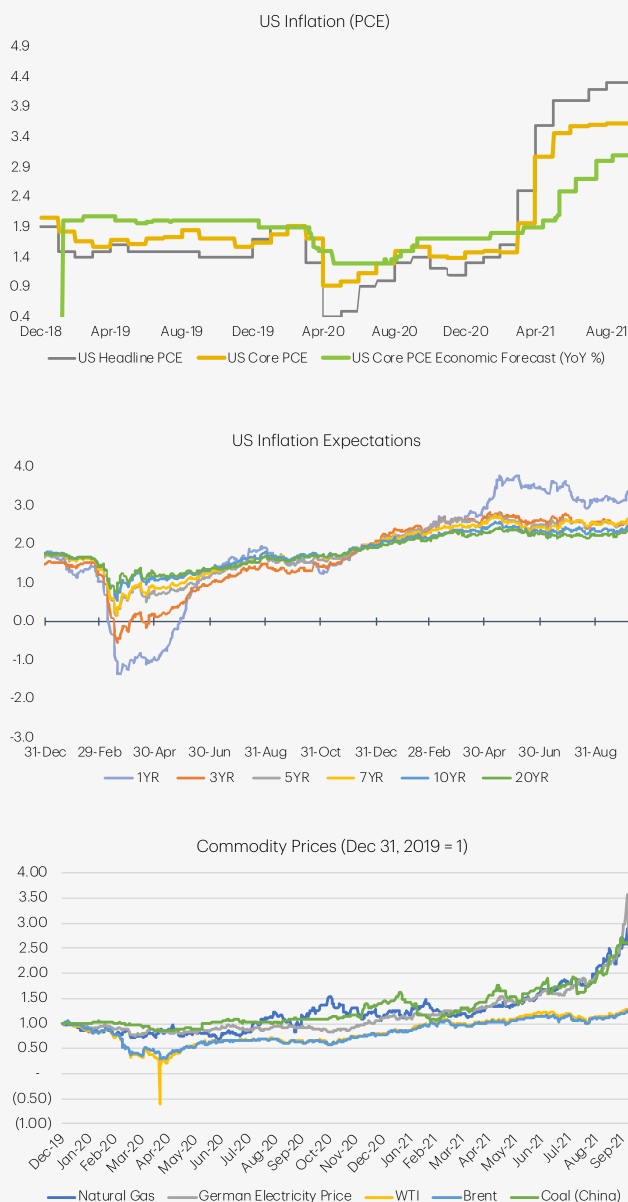
• Supply issues (from labour and raw material shortages to transportation bottlenecks) have kept inflation elevated and encouraged the Fed to upgrade its headline PCE forecast to 4.2% for 2021 (from 3.4% in June) and core PCE forecast for 2021 to 3.7% (from 3.0% in June). This suggests that the persistence of high inflation caught decision makers by surprise. Rising inflation risk is a key reason why the Fed adopted a more hawkish monetary policy position in June and September. Although inflation has stayed higher longer than anticipated, the Fed still expects it to fall within its 2% target after 2024.

• We divide core PCE into two categories: 1) cyclical components that are sensitive to overall employment and economic conditions; and 2) acyclical components that are driven by industry-specific supply/demand factors. Monetary policy affects cyclical components more than acyclical ones. Looking at historical data, the biggest contributor to recent spikes in inflation is the acyclical component. This means that monetary

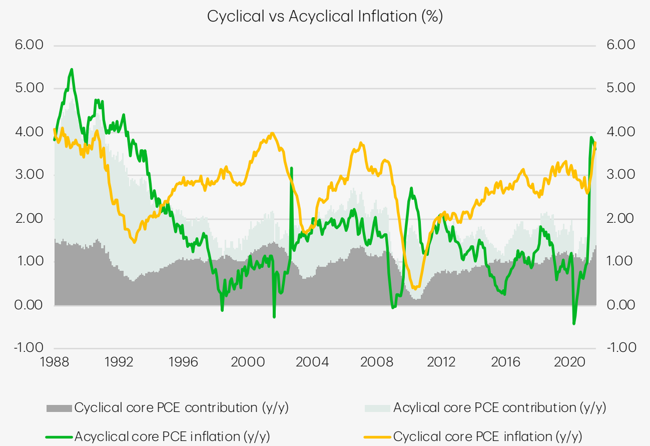
policy isn't very effective at fighting acyclical-driven inflation. Such inflation is likely to persist until industry constraints are resolved. This may partly explain the Fed's hesitance to tighten monetary policy. However, the cyclical component of inflation is also on the rise and the Fed could intervene if this trend continues.

- Long-term inflation expectations based on breakeven inflation rates remained flat at 2.4% at the end of Q3 (compared with 2.3% in Q2). In line with the Fed's outlook at the September FOMC meeting, investors continue to believe the risk of elevated inflation is low. (For more information on the Fed dot plot see *Outlook on Fixed Income*.) In the broader economy, soaring energy costs, tight supply and labour shortages have put the focus on inflation.

Figure 6: Historical and Expected U.S. Inflation



Source: Bloomberg Finance L.P., as of September 30, 2021



Source: Bloomberg Finance L.P., as of September 30, 2021

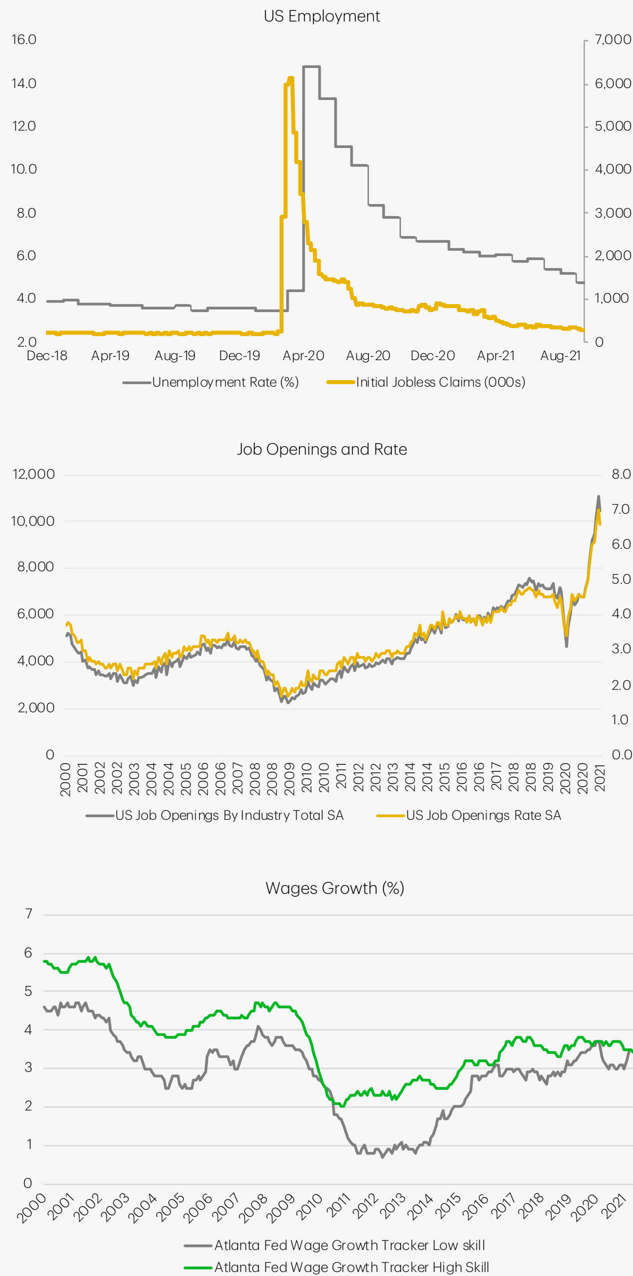
Employment (Strong, Changed from Neutral in Q2)

- U.S. unemployment data in Q3 were mixed. Weekly claims have fluctuated around 350,000 over the past few months and fell to 326,000 in October. These are the lowest figures since the pandemic began and comparable to typical jobless claims pre-pandemic. However, the fluctuations in claims since Q2 signal a slowdown in job growth amid widespread labour shortages in the U.S. as well as in Europe and, increasingly, in Asia.

- The unemployment rate fell from 5.2% in September to 4.8% in October (compared with 5.9% at the end of Q2) buoyed by a strong recovery in the services sector. This figure is below the long-term average unemployment rate but still above pre-pandemic unemployment of 3.5%. While the pace of employment growth is strong especially in the services sector, jobs growth is slowing. Both August and September non-farm payrolls undershot estimates by wide margins (payrolls rose 194,000 versus 500,000 estimated). Growth in the labour force participation rate has been weak since Q2. As such, the number of employed in Q3 changed little: employment is still about 5 million below the February 2020 pre-pandemic level even though productivity and earnings have surpassed February 2020 levels.

- Wage growth trended up to 4.3% y/y in Q3. Tight labour supply within the services sector and low-skilled workers accounted for much of this uptick. There are record job openings and higher wage growth for low-skilled workers. For the first time in 20 years increases in earnings for low-skilled workers have exceeded those for higher skilled workers. Overall, demand for labour is strong while supply remains tight.

Figure 7: U.S. Employment

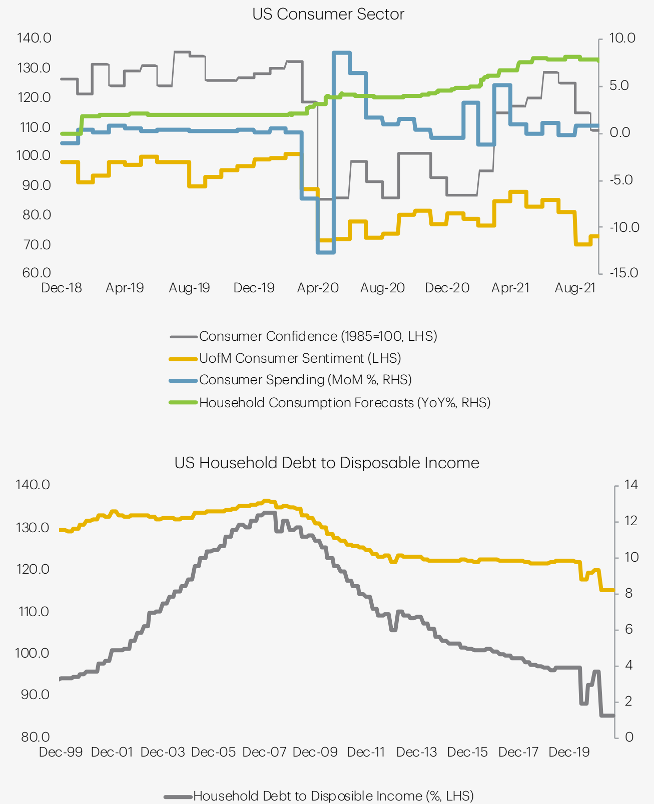


Source: Bloomberg Finance L.P., as of September 30, 2021

Consumer Sector (Strong, Unchanged from Q2)

- After surging to 127.3 in Q2, the Conference Board Consumer Confidence Index fell to 109.3 in Q3. The latest reading, higher than the long-term average of 95, indicates that consumers remain optimistic about the economy but not as optimistic as they were.
- U.S. consumer spending rose 0.8% in August (from July and based on September data). Markets had expected spending to decline amid fears of a general slowdown. This robust increase is well above the long-term average growth in consumer spending, indicating that consumer spending continues to support the economy.
- Household consumption has increased by 12% y/y as of the end of Q3 and is now expected to rise by 7.9% in 2021, unchanged from the June estimate.
- Household debt levels and debt-servicing costs remain at their lowest levels in over 20 years.

Figure 8: U.S. Consumer Sector and Household Debt

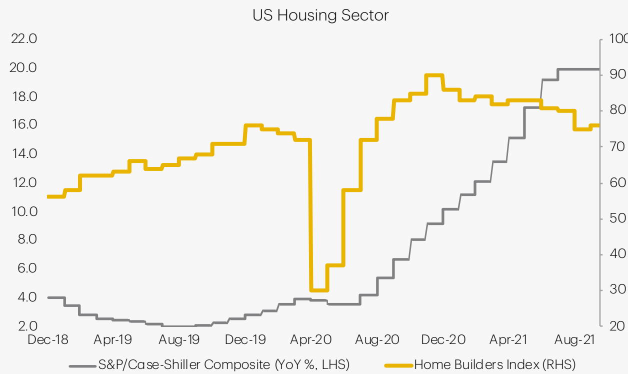


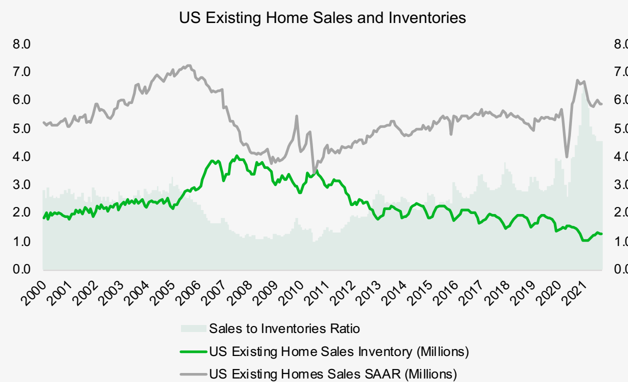
Source: Bloomberg Finance L.P., as of September 30, 2021

Housing (Strong, Unchanged from Q2)

- The S&P/Case-Shiller Home Price Composite Index, which measures residential home prices across the U.S., jumped by 20% over the past year (compared with 14.9% as of June 2021, and 8.0% as of December 2020). This is a lagged composite but the increase in home prices is a bullish sign for the housing market, with broad implications for inflation.
- Home sales are at the highest levels since the 2008 global financial crisis while inventories are at their lowest levels in over 20 years. The shortfall has improved over the past few months but the ratio between sales and inventories remains extremely high.
- The National Association of Home Builders (NAHB) Housing Market Index remains healthy at 76, down from 81-82 in March and June. It hit a record 90 in November 2020, bouncing from the low of 30 in April 2020. (A number above 50 indicates an optimistic view on home sales.)

Figure 9: U.S. Housing Sector





Source: Bloomberg Finance L.P., as of September 30, 2021

Business Conditions (Strong, Unchanged from Q2)

• U.S. capacity utilization ticked up to 76.4% in Q3, from 75.6% in Q2 and 74.8% at the end of Q1. These increases are a significant improvement from the record low of 63.4% in April 2020. Capacity utilization is still lower than its long-run average of about 80% (since 1972), indicating some slack in the economy.

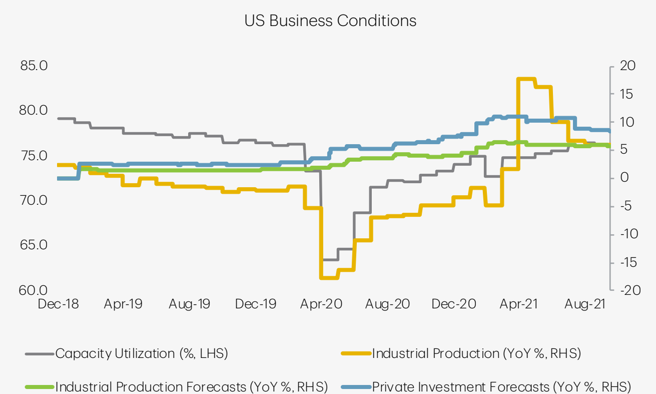
• Growth in industrial production decelerated in Q3 to 6.0% y/y, from 10.1% y/y in Q2, but much better than the 17.7% y/y contraction in April 2020. The numbers were close to flat going into March 2020 so production growth remains robust even if it's slowing.

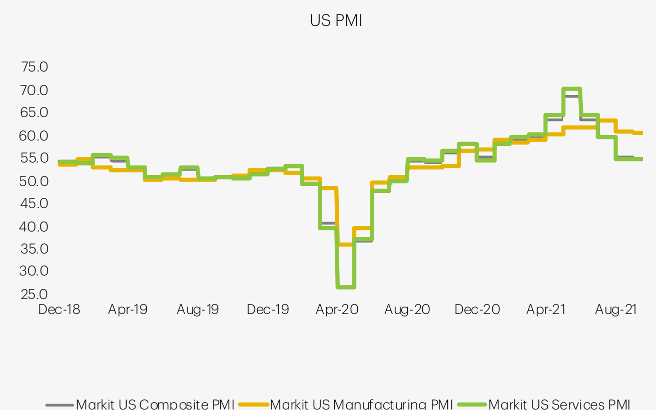
• For 2021, industrial production is still expected to expand by 5.9% (compared with 6.0% forecast in Q2) and private investment by 8.7% (compared with 10.4% forecast in Q2). There are concerns that rising input costs as well as supply and labour shortages will slow production growth in 2022.

• Trailing S&P 500 earnings have recovered well beyond pre-pandemic levels. Analysts expect EPS to jump by 21.7% over the next 12 months (less than the 34% expected in Q2), according to Bloomberg data. The EPS increase is driven by the broad-based recovery across the U.S., especially cyclical sectors. While there are pockets of excess, corporate financial health remains resilient; leverage ratios after adjusting for balance sheet cash are below pre-pandemic levels. U.S. corporate profit margins are also the strongest in over 30 years. Meanwhile, inventory levels overall are at multi-year lows due to supply constraints and the resurgence in demand.

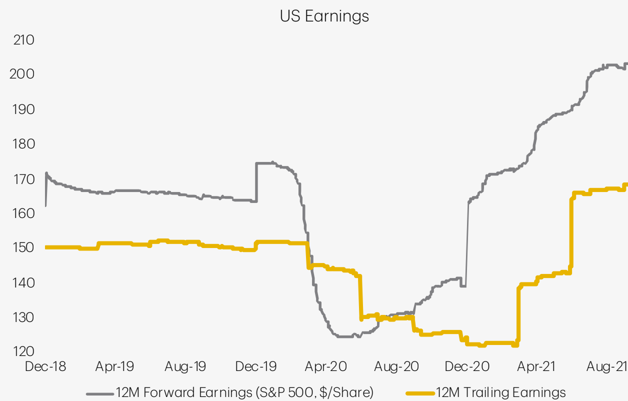
• Purchasing managers' indexes (PMI) weakened in Q3, but remained well above the expansionary threshold of 50. Manufacturing and services PMIs ended Q3 at 60.7 and 54.9 respectively (compared with 62.1 and 64.6 in Q1). The sharp decline in PMI for services, which accounts for more than 77% of the U.S. economy and was hurt most by the shutdown, is notable but not surprising considering the acute labour shortages and rising wage pressures in this sector. By comparison, services PMI fell to a low of 27 in April, while manufacturing dropped to 36.

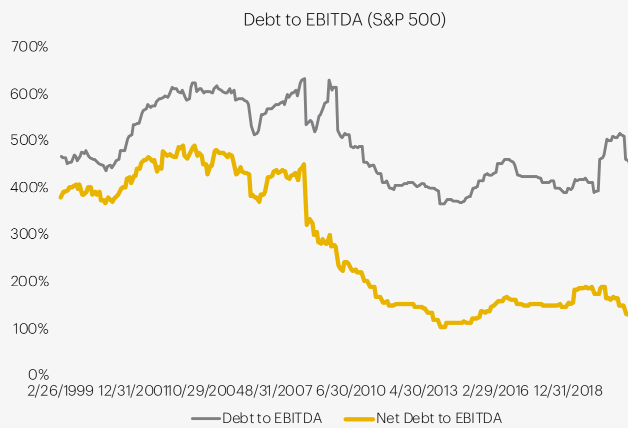
Figure 10: U.S. Business Conditions and PMIs

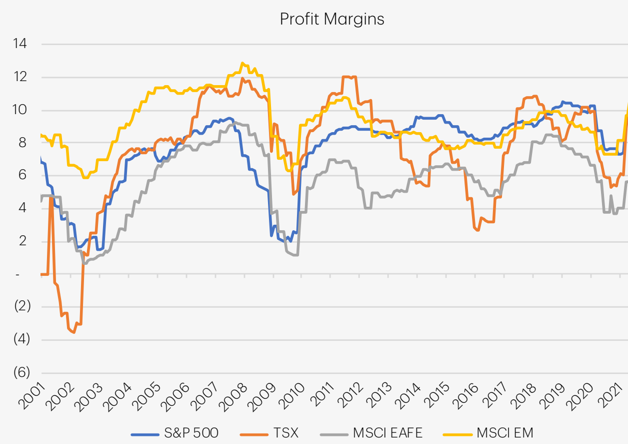


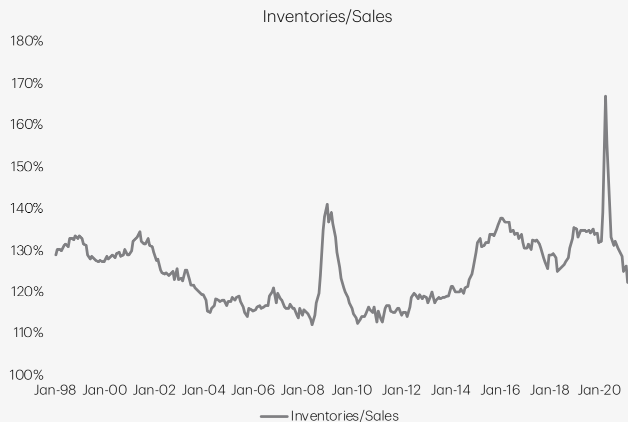


Source: Bloomberg Finance L.P., as of September 30, 2021









Source: Bloomberg Finance L.P., as of September 30, 2021

Financial Conditions (Strong, Unchanged from Q2)

- U.S. financial conditions remain extremely loose, aided by abundant liquidity and investor appetite for credit risk. Like last quarter, concerns remain that financial and credit conditions are too easy, will overheat the market and drive weak or low-quality companies to take on excessive leverage that makes them vulnerable in a downturn. This is especially important with rate hikes on the horizon and economic growth decelerating because some companies don't generate enough earnings to meet the carrying cost of their debt.

- The Chicago Fed's weekly National Financial Conditions Index was unchanged from last quarter at -0.70, which indicates easy lending conditions. This is within 0.10 point of the lowest value recorded by the index in the past 20 years. Risk and credit conditions continue to underpin improvements in financial conditions from March 2020, when the index reached +0.34. By comparison, the index peaked at almost +3.0 standard deviation in 2008 when financial conditions tightened drastically.

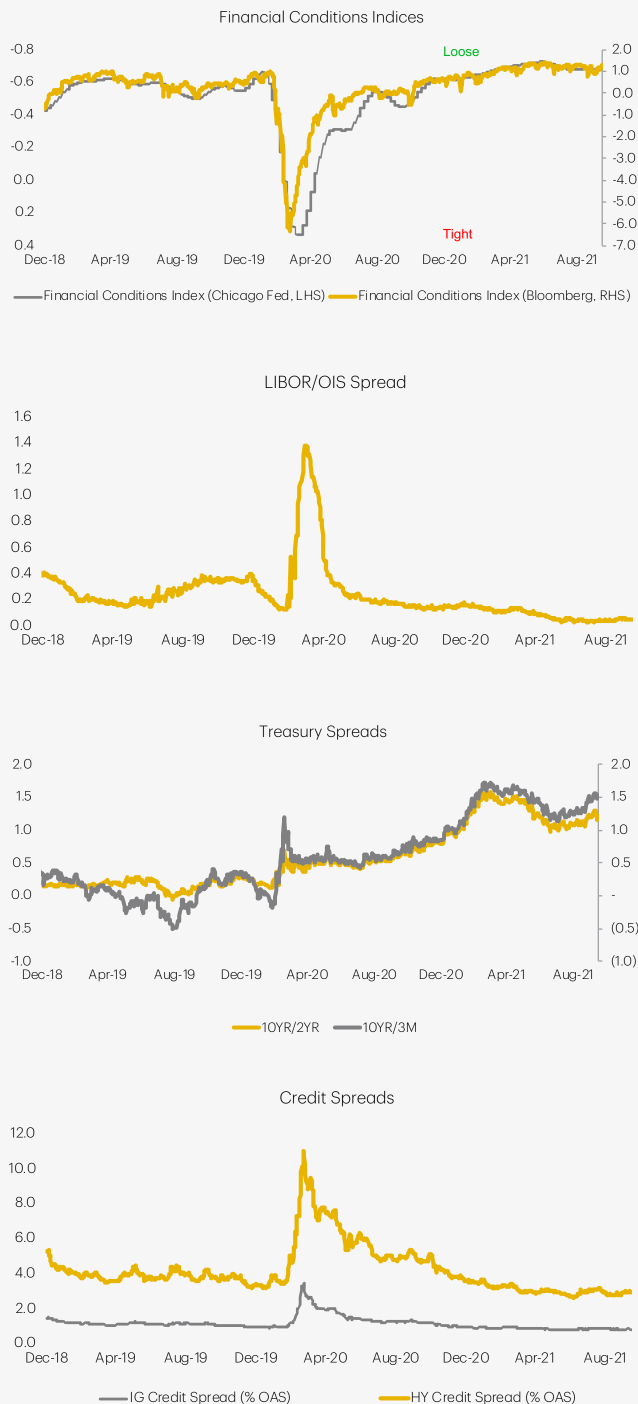
- The Bloomberg Financial Conditions Index sits at +1.0, which is slightly lower than its record high of +1.3 in Q2. The current value indicates ultra-loose financial conditions compared to its long-term average. It's a stark reversal from the -6.3 breached in March 2020.

- 10YR/3M and 10YR/2YR spreads widened in Q3, as the U.S. Treasury yield curve steepened after the Fed's September announcement. The 10YR U.S. Treasury yield rose from about 1.30% to 1.50% at the end of September, pushing term premiums close to 2021 highs. Normally a positive term premium reflects financial and economic strength but, in this case, we had a bear steepening (where long-term rates move higher faster than short-term rates). This suggests investors were surprised by the pace of asset tapering implied by the Fed and FOMC projections that rate hikes could start sooner than expected and are bracing themselves for tighter financial conditions

- Despite record issuances in Q2 and Q3, investment grade corporate bond spreads remained near record lows at 80 basis points (bps), well below the long-term average of 142bps. At the same time, major corporations have healthy balance sheets and are sitting on record liquidity which, if put to debt-friendly activities (like paying down debt) or capital expenditure, could compress spreads further. Credit spreads have also remained resilient despite the selloff in equities, which indicates strong demand for credit.

• High yield bond spreads widened a touch in Q3 but, at 2.93%, were still extremely tight. Despite a rise in market volatility, HY credit spreads are well below their pre-pandemic levels (HY spreads were 3.36% as of December 31, 2019) due to strong economic conditions and fewer expected defaults. Even though economic growth is decelerating, analyst consensus points to a low default probability of 2.5% over the next 12 months (the lowest since 2007). This shows that risk appetite continues to be strong for lower quality credit.

Figure 11: Financial and Credit Conditions



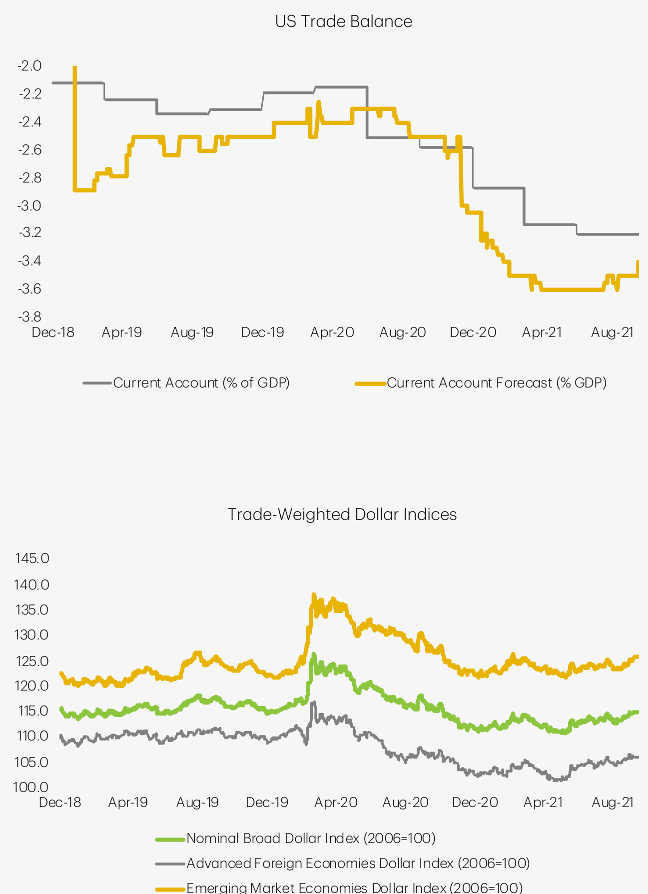
Source: Bloomberg Finance L.P., as of September 30, 2021

Foreign Trade (Neutral, Unchanged from Q2)

• The U.S. current account deficit was unchanged at 3.2% in Q3 (compared with 3.0% in Q1 and 2.7% at the end of 2020) as imports continued to rise alongside strong consumer and business spending while demand for U.S. exports slipped, partly because of the appreciating U.S. dollar. The Q3 number is in line with the long-term average trade deficit of 3.3% of GDP. The current account deficit is expected to deteriorate to 3.5% for 2021, which is a slight improvement from the Q2 forecast.

• The U.S. dollar—which has, except for a pause in Q1 2021, depreciated since April 2020–appreciated in Q3 versus a trade-weighted basket of developed and emerging foreign currencies. This, as noted previously, puts pressure on U.S. exports. The recent round of appreciation began after the Fed's FOMC update in June and accelerated following the September meeting, when the projected timing of the first rate hike was moved forward.

Figure 12: External Trade Account



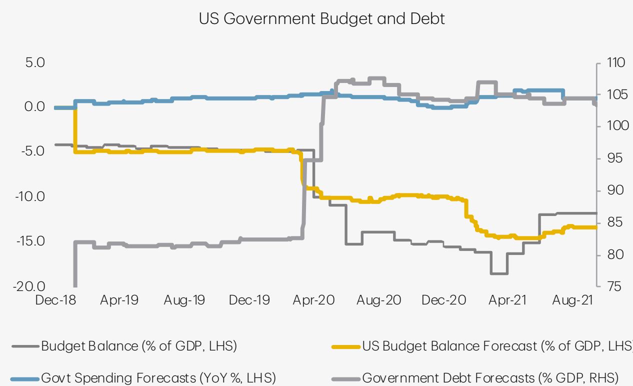
Source: Bloomberg Finance L.P., as of September 30, 2021

Government/Fiscal Policy (Accommodative, Unchanged from Q2)

• U.S. fiscal accommodation is expected to remain strong but gradually ease. The Biden administration continues to face obstacles in passing the slimmed-down infrastructure package announced in Q1 which casts doubt on other planned fiscal spending packages. It's larger US$3.5 trillion spending package is also in jeopardy. However, globally, there is more appetite for maintaining higher government spending post-pandemic in contrast to the austerity measures that major governments imposed after the 2008 global financial crisis.

• U.S. federal expenditures have been on a decline, falling 2% in September on an annualized basis. This is expected as pandemic spending winds down. Most government pandemic support payments also ended as of September.

Figure 13: U.S. Government Budget and Debt



Source: Bloomberg Finance L.P., as of September 30, 2021

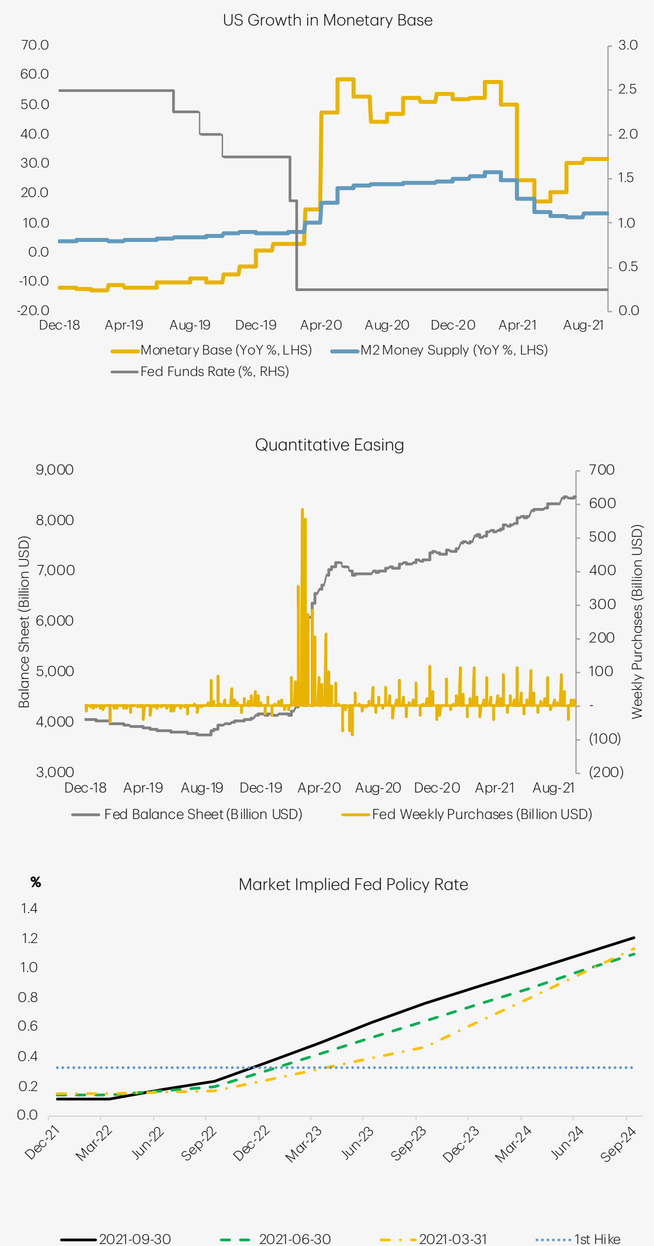
Monetary Policy (Accommodative, Unchanged from Q2)

• September extended the message from the June FOMC meeting, when the Fed first signaled an earlier-than-expected monetary tightening schedule with possibly two rate hikes by the end 2023. This time, it signaled a more aggressive tapering schedule and the FOMC's latest dot plot indicated the first rate hike could come by the end of 2022. At the same time, growth in M1 and M2 money supply have continued to decelerate from their historic peaks in Q4.

• Even if the Fed starts tapering bond purchases as early as November, Chair Powell said the Fed won't raise rates until after tapering has finished (around mid 2022). The Fed is still committed to its loose policy stance and anchoring policy rates near zero in the near term. By comparison, the Bank of Canada started tapering its bond purchases in Q2 and investors expect further reductions in October.

• Average inflation targeting reinforces the Fed's focus on labour market recovery and inflation. The Fed has allowed inflation expectations to breach 2.0%, letting the economy run hot in 2021 even though financial assets and forward corporate earnings achieved record highs. However, with realized inflation breaching multi-decade highs, the Fed switched course by signaling an earlier-than-expected monetary tightening schedule. This policy direction picked up speed in Q3 and this shift marks the beginning of a monetary and credit tightening cycle.

Figure 14: U.S. Monetary Base and Central Bank Stimulus



Source: Bloomberg Finance L.P., as of September 30, 2021

Risk Sentiment (Neutral, Changed from Strong in Q2)

• Despite market turbulence in September, implied volatilities for key assets remain subdued, supported by the successful vaccine rollout, strong economic recovery, and abundant liquidity. Such a calm environment is typically favourable for risk assets.

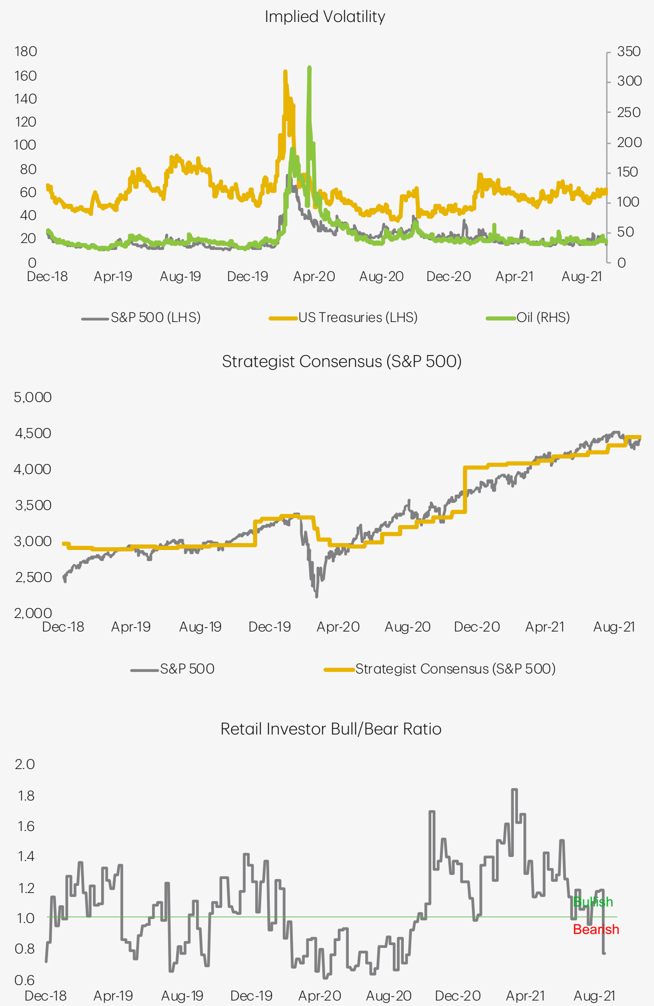
• Implied volatilities for U.S. stocks, as measured by the VIX index, are at 22 points, slightly above its long-term average of 20. Implied volatilities for U.S. stocks, using 3-month, 6-month and even 12-month forward options, rose slightly in Q3 to the mid-20s, suggesting investors expect slightly above-average volatility beyond the next 30 days.

• The MOVE Index also points to prevailing calm in the market. It fell to as low as 51.7 in early September before ending Q3 at 61.1 after the Fed's hawkish policy shift in September. The current level is slightly higher than 57.3 at the end of Q2, but still well below its long-term average of 87.

• The S&P 500 Index hit a record 4,537 in early September, before closing the month down 4.8%. Consensus estimates by investment strategists (as compiled by Bloomberg) remain neutral on a forward basis. Strategists expect the S&P 500 Index to rise slightly to about 4,466 over the next 12 months.

• Similar to the strategist consensus, U.S. investment advisors have turned slightly bearish on the markets (after being bullish earlier in the quarter). □

Figure 15: Implied Volatility



Source: Bloomberg Finance L.P., as of September 30, 2021

Market Performance

Canadian Indices ($CA) Return	Index	(%) 1 Month	(%) 3 Months	(%) YTD	(%) 1 Year	(%) 3 Years	(%) 5 Years	(%) 10 Years	(%) 20 Years
S&P/TSX Composite (TR)	75,009	-2.22	0.17	17.48	28.02	11.07	9.64	8.84	8.40
S&P/TSX Composite (PR)	20,070	-2.49	-0.47	15.13	24.49	7.68	6.39	5.61	5.53
S&P/TSX 60 (TR)	3,656	-2.01	0.21	18.83	28.17	11.68	10.38	9.39	8.54
S&P/TSX SmallCap (TR)	1,293	-0.12	-2.54	16.73	44.14	9.33	5.76	5.30	0.06
U.S. Indices ($US) Return									
S&P 500 (TR)	8,995	-4.65	0.58	15.92	30.01	15.99	16.90	16.63	9.51
S&P 500 (PR)	4,308	-4.76	0.23	14.68	28.09	13.92	14.72	14.30	7.36
Dow Jones Industrial (PR)	33,844	-4.29	-1.91	10.58	21.82	8.55	13.08	11.98	6.94
NASDAQ Composite (PR)	14,449	-5.31	-0.38	12.11	29.38	21.55	22.16	19.59	12.00
Russell 2000 (TR)	11,379	-2.95	-4.36	12.41	47.68	10.54	13.45	14.63	10.29
U.S. Indices ($CA) Return									
S&P 500 (TR)	11,460	-3.72	3.39	16.00	24.17	15.38	16.22	19.04	8.34
S&P 500 (PR)	5,488	-3.82	3.03	14.76	22.34	13.31	14.05	16.66	6.21
Dow Jones Industrial (PR)	43,119	-3.35	0.83	10.65	16.36	7.98	12.42	14.29	5.80
NASDAQ Composite (PR)	18,408	-4.38	2.40	12.18	23.58	20.90	21.45	22.05	10.80
Russell 2000 (TR)	14,497	-2.00	-1.69	12.48	41.05	9.96	12.79	16.99	9.12
MSCI Indices ($US) Total Return									
World	13,187	-4.11	0.09	13.43	29.39	13.72	14.34	13.30	8.68
EAFE (Europe, Australasia, Far East)	10,184	-2.83	-0.35	8.79	26.29	8.13	9.33	8.60	7.03
EM (Emerging Markets)	3,021	-3.94	-7.97	-0.99	18.58	8.96	9.62	6.46	11.33
MSCI Indices ($CA) Total Return									
World	16,800	-3.17	2.89	13.50	23.59	13.12	13.68	15.64	7.52
EAFE (Europe, Australasia, Far East)	12,974	-1.87	2.43	8.86	20.63	7.56	8.69	10.84	5.89
EM (Emerging Markets)	3,849	-3.00	-5.40	-0.93	13.27	8.39	8.99	8.66	10.14

Currency									
Canadian Dollar ($US/$CA)	78.49	-0.97	-2.71	-0.06	4.70	0.53	0.58	-2.02	1.08
Regional Indices (Native Currency, PR)									
London FTSE 100 (UK)	7,086	-0.47	0.70	9.69	20.80	-1.92	0.54	3.29	1.86
Hang Seng (Hong Kong)	24,576	-5.04	-14.75	-9.75	4.76	-4.01	1.07	3.40	4.62
Nikkei 225 (Japan)	29,453	4.85	2.30	7.32	27.03	6.88	12.36	12.97	5.67

Benchmark Bond Yields	3 Months	5 Yrs	10 Yrs	30 Yrs
Government of Canada Yields	0.14	0.98	1.39	1.84
U.S. Treasury Yields	0.05	0.89	1.47	2.09

Canadian Bond Indices ($CA) Total Return	Index	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
FTSE TMX Canada Universe Bond Index	1,179	1.13	1.87	-3.46	-2.33	4.12	2.64	3.90
FTSE TMX Canadian Short Term Bond Index (1-5 Years)	767	-0.17	0.06	-0.52	0.71	3.01	1.94	2.30
FTSE TMX Canadian Mid Term Bond Index (5-10)	1,288	0.58	1.54	-3.00	-1.34	4.62	2.58	4.25
FTSE TMX Long Term Bond Index (10+ Years)	1,997	3.22	4.45	-7.37	-6.69	5.11	3.49	5.96

HFRI Indices ($US) Total Return (as of March 31, 2020)								
HFRI Fund Weighted Composite Index	18,217	0.54	4.14	10.12	27.53	8.72	7.95	5.13
HFRI Fund of Funds Composite Index	7,426	0.55	2.87	4.95	18.29	6.32	6.12	3.85
HFRI Event-Driven (Total) Index	20,722	0.62	3.97	11.72	30.13	7.98	8.37	5.52
HFRI Equity Hedge Index	29,634	0.85	4.84	11.96	36.52	11.27	10.83	6.46
HFRI Equity Market Neutral Index	5,914	0.63	3.12	5.08	7.81	1.78	2.63	2.63
HFRI Macro (Total) Index	17,453	-0.53	4.00	8.34	14.95	5.89	3.22	2.05
HFRI Relative Value (Total) Index	13,971	0.65	2.75	6.57	15.49	5.05	5.38	4.76
HFRI Indices ($CA) Total Return (as of March 31, 2020)								
HFRI Fund Weighted Composite Index	22,604	3.38	2.77	7.01	16.22	6.65	6.98	7.81
HFRI Fund of Funds Composite Index	9,214	3.38	1.52	1.99	7.80	4.29	5.17	6.51
HFRI Event-Driven (Total) Index	25,711	3.46	2.61	8.57	18.59	5.92	7.40	8.21
HFRI Equity Hedge Index	36,770	3.70	3.46	8.81	24.40	9.15	9.83	9.18
HFRI Equity Market Neutral Index	7,338	3.47	1.77	2.12	-1.76	-0.16	1.71	5.25
HFRI Macro (Total) Index	21,656	2.27	2.64	5.29	4.76	3.88	2.30	4.66
HFRI Relative Value (Total) Index	17,336	3.49	1.41	3.57	5.24	3.04	4.43	7.44

Sources: TD Securities Inc., Bloomberg Finance L.P. TR: total return, PR: price return, as of September 30, 2021.

Appendix

Glossary of Terms

Bloomberg Financial Conditions Index: This index tracks the degree of financial stress using money-market spreads, bond-market spreads, broad equity prices, and volatility trends relative to historical values. Here, a positive value means relatively easy financial conditions while a negative value means tighter-than-average conditions. The average is based on pre-GFC financial conditions from 1994 to 2008.

Bond duration: Bond duration is a way of measuring how much bond prices are likely to change as interest rates move. In more technical terms, bond duration is measurement of interest rate risk or sensitivity.

Capacity utilization: Measures how close an economy is operating relative to its estimated maximum sustainable productive output without causing strains on existing resources.

Headline consumer price index (CPI): Measure of the average change in the price for a basket of goods and services bought by consumers between two time periods. It is a measure of inflation that is based on prices for food, clothing, shelter, utilities, transportation fees, etc. Monthly price changes are seasonally adjusted to remove the effects of seasonal variations.

Core consumer price index (CPI): This measure of inflation is the same as Headline CPI but excludes food and energy prices because these tend to be very volatile and may have an outsized impact on the overall inflation calculation.

Conference Board Consumer Confidence Index: The confidence index is based on surveys of consumers' perceptions of current business and employment conditions, as well as their expectations for six months hence regarding business conditions, employment, and income. The index is normalized to its value in 1985.

CBOE equity put/call ratio: A measure of market sentiment based on the trading volume of put option contracts compared to call option contracts. A value above 1.0 means more investors are trading put options than call options, which imply investors are bearish about the market. A value of below 1.0 means more investors are bullish.

Current account balance: The current account is a country's trade balance plus net income and direct payments. The trade balance is a country's imports and exports of goods and services. The current account also measures international transfers of capital. A current account is in balance when the country's residents have enough to fund all purchases in the country. Residents include the people, businesses, and government while funds include income and savings and purchases include all consumer spending as well as business growth and government infrastructure spending. The goal for most countries is to accumulate money by exporting more goods and services than they import – this state is called a trade surplus.

Federal Reserve Bank of Chicago's weekly National Financial Conditions Index: This measure combines risk, credit, and leverage indicators to provide a sense of how loose or tight financial conditions are across money, debt, and equity markets. It shows the standard deviations of indicators relative to their historical data going back to 1971. A value of 0 signifies average financial conditions, while a positive value means tighter than average, and a negative value means looser than average.

Fiscal stimulus: In a recession, the government may decide to increase borrowing and spend more on infrastructure spending. The idea is that this increase in government spending creates an injection of money, also known as fiscal injection, into the economy and helps to create jobs.

Household debt service ratio: Measures the percentage of disposable personal income that's required to service debt payments (both mortgages and consumer debts). This measure provides an indication of the carrying cost of household debt.

Initial jobless claims: A weekly government report that measures the number of individuals seeking government unemployment benefits for the first time.

Industrial production: Measures the real output of the manufacturing, mining, and electric and gas utilities industries.

Implied correlations: Represent market expectations of diversification or dispersion across a basket of S&P 500 stocks. Implied correlations are calculated using single-stock option contracts and option contracts on the S&P 500. A higher number means options investors expect stocks within the S&P 500 to move in tandem with each other, while a lower value means investors expect greater dispersion in performance.

Implied volatility: A short term measure of risk sentiment based on transactions in the options market. The VIX Index measures expected volatility for the S&P 500 equity index while the MOVE index measures expected volatility for US Treasury bonds. There is also a VIX Index for expected volatility in oil prices that is based on option contracts on the United States Oil Fund (USO).

Investment-grade and high-yield bond spreads: The difference between the yield on an investment-grade or high yield corporate bond versus the yield on the 10-year treasury bond. These measures represent the embedded risk in corporate bonds. Spreads are narrower when investors are willing to take on more risk and wider when investors are not willing to take on more risk.

LIBOR/OIS spread: This measure illustrates the relationship between liquidity in financial markets and stress in the short-term funding market for secured and unsecured lending. A wider spread indicates high interbank borrowing costs.

Monetary base: The monetary base refers to that part of the money supply which is highly liquid (i.e. easy to use). The monetary base includes notes and coins in circulation along with commercial bank deposits with the Central Bank. In the money multiplier model, an increase in the monetary base can lead to a bigger proportional increase in overall money supply. This is because if banks see an increase in their deposits, they can lend out a bigger sum of money and keep the same proportion in reserve.

M1 money supply: M1 money supply includes coins and currency in circulation—the coins and bills that circulate in an economy that are not held by the government treasury at the central banks, or in bank vaults. Closely related to currency are funds held in chequing accounts, also known as demand deposits. These items together—currency, and chequing accounts in banks—make up the definition of money known as M1, which is measured daily by the central banking system.

M2 money supply: A broader definition of money, M2 includes everything in M1 plus other types of deposits including; funds in *savings accounts*, money market funds as well as funds invested in certificates of deposits (less than $100,000). In short, all these types of M2 are money that we can withdraw and spend, but which require a greater effort to do so than the items in M1.

National Association of Home Builders (NAHB) Housing Market Index: This index measures home builders' view on current and future (6 month forward) residential house sales, based on monthly surveys. A reading of above 50 means homebuilders on average have a positive outlook on home sales; a value below 50 means they have a negative view.

Purchasing managers' indexes (PMIs): A monthly measure of the business outlook of purchasing managers across primary industries. PMIs provide an indication of business conditions and health of the economy on a forward-looking basis. PMIs are completed for both manufacturing and service sectors. A reading of above 50 means purchasing managers expect an expansion in the economy while a measure below 50 means they expect contraction.

Retail investor bullish/bearish ratio: A measure of investor sentiment based on the proportion of investment advisor (retail investors) that have a positive outlook on the US market compared with those that are pessimistic about the market. The outlook horizon is the next 6 months. A higher ratio means that more retail investment advisors are bullish than bearish and vice versa.

S&P/Case-Shiller Composite Index: A monthly composite that measures single-family home prices across the US. It seeks to measure changes in the total value of all existing single-family housing stock. Note that sales of new homes are not included in the index. The index is normalized to have a value of 100 for January 2000.

Term premium: The term premium is the compensation investors require for holding a long-term bond compared to rolling over a series of short-term bonds with lower maturity.

10-Year U.S. yields: The return on 10-year US government bonds, which are historically used as benchmark interest rates. They represent the prevailing borrowing costs and the expected returns from risk-free rates.

10YR/2YR and 10YR/3M spreads: These spread measures represent the difference in yield between shorter-term government bonds and longer-term government bonds. They provide an indication of the shape of the yield curve. Historically a negative spread between 10-year and 2-year government yields has been considered a signal for recession.

Trade-weighted dollar index: This index tracks the value of the U.S. dollar against a basket of currencies (where weights are calculated using trade data).

Unemployment rate: Measure of the number of unemployed as a percentage of the active labor force (people 16 years of age and older). This measure is also seasonally-adjusted.

Yield curve: Illustrates the tradeoff between yield and term of a type of bond. In general, short-term bonds carry lower yields as the longer we commit funds, the more we should be rewarded for that commitment, or rewarded for the risk we take that the borrower may not pay us back. This is reflected in the normal yield curve, which slopes upward from left to right on the graph as maturities lengthen and yields rise. There are times, however, when the curve's shape deviates, signaling potential turning points in the economy.

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