Forecast
Market Outlooks

Q3 2021

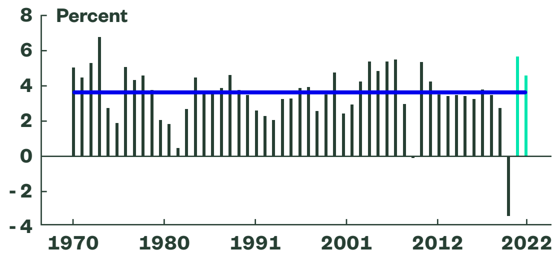
Forecasts — Quarter 3, 2021

Global Economic Outlook

Simona Mocuta
Senior Economist
Global Macro and Research

Page 2

Figure 1
Recovery Broadens But Remains Incomplete



World, GDP Growth
World, GDP Growth Forcast
Long Term Average Growth (3.65%)

Source: State Street Global Advisors Economics, Oxford Economics, International Monetary Fund. The above forecast is an estimate based on certain assumptions and analysis made by the State Street Global Advisors Economics Team. There is no guarantee that the estimates will be achieved.

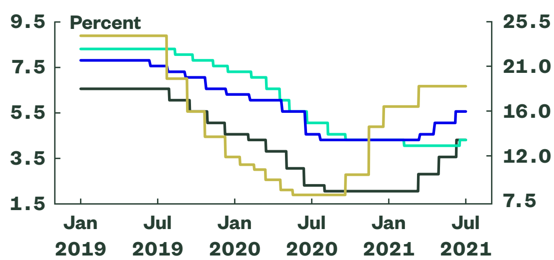
- We raised our 2021 global growth forecast to 5.9%. As vaccinations drive reopening and normalization of economic activity outside the US, the US growth advantage gets eroded; the rest of the world likely becomes the dominant growth driver in 2022.
- Globally, we are past the moment of peak policy accommodation. Momentum is shifting in favor of removing accommodation; gradual as that process will be, it represents a key source of potential risk and volatility.

Emerging Markets Outlook

Simona Mocuta
Senior Economist
Global Macro and Research

Page 6

Figure 2
Policy Interest Rates: Emerging Markets



Brazil (lhs)
Mexico (lhs)
Russia (lhs)
Turkey (rhs)

Source: State Street Global Advisors Economics, Banxico, CBRF, SAFB, TCMB as at 30 June 2021.

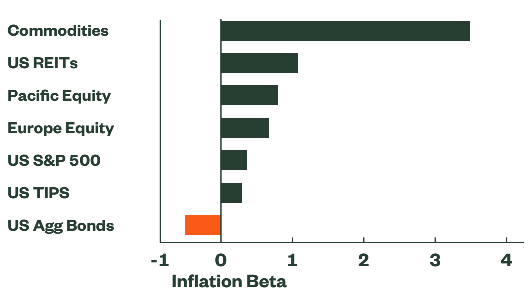
- While the EM recovery lags the DM recovery in the immediate aftermath of the COVID crisis and EM central banks have already started raising rates, that growth gap should narrow drastically in the latter part of 2021 and in 2022.
- The reality of booming global manufacturing activity benefits emerging markets given their roles as manufacturing hubs and/or commodity producers, helping offset the impact of a slow vaccination pace on domestic activity.

Global Capital Markets Outlook

Jeremiah Holly
Senior Portfolio Manager
Investment Solutions Group

Page 7

Figure 3
Inflation Betas (Jan 2001–May 2021)



Source: State Street Global Advisors, FactSet, as of May 31, 2021.[2]

- A more durable episode of consumer price inflation is not a foregone conclusion, but the risks are prevalent enough to tilt towards asset classes that can help protect against a loss of purchasing power over both short and intermediate horizons.
- In the near term, we find some intriguing, and counterintuitive, relationships across fixed income assets during periods when inflation is increasing.

Global Economic Outlook

Simona Mocuta
Senior Economist
Global Macro and Policy Research

The global economic recovery is continuing to pick up pace, with the quickening rate of vaccinations in Europe helping close the growth gap with the United States. Concerns remain around supply chain bottlenecks, whether high transient inflation evolves into something stickier and when major central banks might start to remove accommodation.

The Recovery Broadens But Is, As Yet, Incomplete

Despite considerable remaining challenges, the world has made a lot of progress on the COVID front since our last Forecasts publication. Nearly a quarter of the world's population has received at least one vaccine dose, up from just 3.0% in mid-March. The European Union, in particular, has essentially closed the gap with the United States, reinforcing our upside-to-consensus view on European growth for this year.

Interestingly, our global growth forecasts have changed very little (up two tenths of a percentage point, to be precise) since March. There are two main reasons for this. We've made little to no change to our European growth projections, having already called for robust growth in the last update. And while we raised our 2021 US growth forecast, we remain below consensus due to ongoing concerns around supply chain disruptions, delayed normalization of services, and drags from foreign trade. As vaccine deployment drives reopening and normalization of economic activity outside the United States, the US growth advantage gets eroded; the rest of the world likely becomes the prominent growth driver in 2022.

We have raised our inflation forecasts. Although we have long argued that strong household balance sheets in the post-COVID recovery speak to a much more robust inflation backdrop than in the aftermath of the Global Financial Crisis (GFC), we have still been surprised by the extreme supply chain bottlenecks that have developed. We suspect it will take several quarters to work through these. Much of what drives inflation today will indeed prove to be transient, but transient does not mean fleeting, and we are watching for signs that the transient could evolve into something stickier.

Globally, we are past the moment of peak policy accommodation, both on the fiscal and the monetary policy sides. While select emerging market central banks have already begun rate normalization, developed market central banks have done little so far beyond the minor tapering of asset purchases here and there. Momentum is clearly shifting in favor of removing accommodation; gradual as that process will be, it represents a key source of risk and volatility in coming months.

United States: Peak Growth, Peak Inflation, Peak Accommodation

Our core views around the US economy are unchanged. We remain below consensus (Bloomberg consensus is currently at 6.6%), but have upgraded our full-year 2021 growth forecast by about half a percentage point to 5.9% in response to the March surge in consumer spending, sustained in April and May. However, this is greatly exacerbating supply chain constraints as well as inflationary pressures and may lead to some postponement of consumption from here on, either by choice or by necessity. So this is by no means a demand deficit story — rather, it is a story of supply constraints that will take time to work through. We see genuine absorption capacity constraints in the US economy amid the outpouring of fiscal transfers and broader reopening.

Inflation: Transient But Not Fleeting

Last quarter we asked whether "the extraordinary degree of pent-up demand, coupled with supply disruptions/constraints will cause inflation to spike." By now, we know this to be true. Headline consumer price inflation surged 5.0% year-on-year (y/y) in May with core inflation at 3.8% y/y, the highest levels since 2008 and 1992, respectively. As we move into the third quarter, the inflation peak should be behind us, but the strength of demand and the intensity of supply chain pressures suggest more of a gentle sloping moderation rather than an abrupt correction. We have revised the 2021 inflation forecast substantially higher and kept 2022 unchanged, implying a drawn-out normalization process.

It is true that much of what is driving inflation this year is transient — supply bottlenecks and pent-up re-opening related demand will eventually subside, and base effects will eventually work in the opposite direction. In this sense, the Fed's position that the current inflation spike is "transient" is justified. However, transient does not mean fleeting, and It could take us well into 2022 to reach that point. And then, even as goods inflation moderates, we could see currently tame shelter costs start to increase. So far this year, shelter costs — and owner equivalent rent specifically — have been entirely disconnected from surging house prices. That gap should narrow materially over the next 18 months as distortions from rent and mortgage forbearance wash out of the data and normal market behavior returns. The evolution of shelter costs will be critical to the 2022 inflation outcome.

The Federal Reserve (Fed) has provided ample policy accommodation throughout the COVID crisis, but at its June 2021 meeting it took the first step towards moving past that "peak accommodation" moment. Admittedly, all we got so far was an intention, rather than actual policy changes. Federal Open Market Committee (FOMC) members brought forward expectations for the start of rate normalization and now pencil in two rate hikes in 2023. If the Fed's own forecasts prove correct, that timeline could be brought forward still. But that's still quite a bit out. The most immediate policy consideration is around tapering, which we expect will be discussed outright (Fed Chair Jerome Powell described the June meeting as being in the "talking about talking" stage) at either the July meeting or at the Jackson Hole Economic Symposium in August, with an official announcement coming soon thereafter.

Eurozone: Gaining Confidence

Similar to our view on the United Kingdom, we've held a positive-to-consensus view of eurozone growth for the past six months. We acknowledged last quarter that "this is not an easy position to take given the general complexities of forecasting multiple economies evolving at different speeds, further compounded by slow vaccine deployment so far and variable social distancing restrictions across countries." However, we said then that "we believe that vaccine deployment will be scaled up sharply over the next two months such that the current large gap relative to the US and UK will shrink dramatically by early Q3, allowing for a quicker removal of mobility restrictions and faster recovery in economic activity". In retrospect, vaccine deployment has evolved even better than we dared hope, with the eurozone poised to overtake the US in terms of share of population with at least one vaccine dose.

Given the better than expected first-quarter performance (the economy contracted 0.3%, or half the anticipated rate), positive signals from high frequency data such as purchasing managers' indexes, healthy household finances, and plenty of pent-up demand, we have left our eurozone growth forecasts mostly unchanged. We shaved one tenth off regional growth to 5.4%, which remains well above consensus but we view it as optimistic yet achievable. The biggest divergence comes from our stronger expectations around German growth. Admittedly, German growth was soft in Q1 and recent retail sales performance somewhat disappointing, so we acknowledge downside risks here. We have, in fact, trimmed the German growth forecast by three tenths to 4.4%, but this remains a full percentage point above consensus. Still, we look at the fundamental drivers and believe a solid recovery should unfold from Q2 onwards.

Inflation: Less Intense, Less Durable

The eurozone's inflation deficit has been a perennial problem in the context of low growth and weak demand. Meeting the inflation target sustainably will remain very difficult, but cyclical and technical factors will lift headline inflation this year to 1.9% this year (from 0.3% in 2020). However, we expect the uptick in inflation to be both less intense and less durable than in the United States, for instance, and for the European Central Bank (ECB) to retain a very dovish stance, with rate normalization to lag the Fed.

United Kingdom: Rebounding

The UK remains a global leader in COVID vaccinations, with nearly 67% of the population having received at least one vaccine dose. While the Delta variant remains a risk, case counts are down sharply from last quarter and the full removal of mobility restrictions is expected in July.

Meanwhile, the economic damage from the strict first-quarter lockdowns was notable, but limited, confirming our upside-to-consensus views on UK growth. Indeed, we wrote back in March that we saw "current consensus projections of a 4.7% expansion as too conservative, especially in light of the recent budget that will add close to three percentage points worth of GDP in stimulus over the next two years. Thus, although we do anticipate a first-quarter contraction, we believe a sharp enough second and third quarter rebound is possible to allow the economy to grow by 6.2%."

Our views are little changed since then, although we have upgraded our 2021 growth projection further to 6.9%, keeping us slightly above a much improved consensus forecast. The same arguments in favor of better growth that we referenced three months ago are still in play and center around elevated household savings and sizable pent-up demand. In fact, these forces have become even more relevant after the latest lockdowns. We assume that private consumption only retraces about half of last year's losses; a better performance here could lead to even stronger GDP growth.

We have left our Inflation forecasts untouched, having already anticipated a rapid acceleration from 0.9% in 2020 to 1.9% in 2021. Incoming data so far remain consistent with this view. We continue to see 2022 inflation steady at 1.9% as fading base effects from commodity and goods inflation give way to other drivers of price tightening that have to do with elimination of excess capacity.

Moderating Risks But No Rate Hikes Until 2022

With risks to the outlook moderating alongside vaccinations, the need for extraordinary monetary policy accommodation has diminished. Early in the crisis, the Bank of England (BoE) cut the Bank Rate by 65 basis points to 0.1% and increased the quantitative easing (QE) program from £435 billion to £745 billion (and later to £875 billion), engaging in various liquidity operations and extending real-economy lending incentives. The BoE has also added negative interest rate to its toolkit, having instructed the Prudential Regulatory Agency (PRA) in February to "engage with

PRA-regulated firms to ensure they commence preparations in order to be ready to implement a negative Bank Rate at any point after six months." However, this is a tool to be used in the next business cycle, not this one. In fact, improving economic conditions have already led the BoE's Monetary Policy Committee (MPC) to conclude that "the pace of these continuing purchases could now be slowed somewhat". Policy accommodation will be withdrawn only slowly and carefully, but we do anticipate the BoE to start normalizing rates in 2022.

Japan: Stronger Rebound in H2

Japan's recovery has been unexpectedly delayed by a fresh wave of infections and the imposition of a third state of emergency. However, the hit to first-quarter GDP was smaller than feared and initially reported. Nonetheless, the 2021 growth forecast has been trimmed slightly to 3.0%. We have raised the 2022 growth forecast by three tenths to 2.9% on expectations of strong exports and services consumption, supported by infrastructure spending on digitalization and 5G.

Focus is now shifting to the second half of the year, with a lukewarm Q3 factored in. We are pinning our hopes of a rebound in the fourth quarter when we expect the "Go To" campaigns to be back in full swing. Progress on vaccination will be key here; while Japan had lagged most other developed economies, vaccinations are now quickly speeding up. In fact, Japan is ahead of its estimated timeline of inoculating the older population (65 years and above) by the end of July. We should therefore see a much more durable improvement in consumer spending after the third quarter. Exports will continue to contribute positively to growth as global demand remains strong. The outlook for capex is also positive, especially since the manufacturing PMI is still lagging growth in exports. Government spending will also be supportive.

Core inflation is likely to remain benign even as the health situation stabilizes, partly due to the deflationary impulse stemming from the "Go To" campaign. The output gap will narrow, but will likely remain negative throughout 2022. A weak labor market and sluggish wage growth will keep a lid on inflation in the longer term. We expect inflation to average just 0.1% this year and 0.3% y/y in 2022, still some distance from what the Bank of Japan would like to see.

BoJ Policy Likely in Place Through 2022

The BoJ tweaked its policy settings following an "assessment for further effective and sustainable monetary easing" in March. That included "clarifying" that the Yield Curve Control range is +/- 0.25%, which offers more flexibility to respond to economic conditions and a higher ceiling for yields. The ¥12 trillion upper limit for annual ETF purchases was maintained, though a specific ongoing purchase commitment was abolished. Interpreted as a "pseudo taper", we think the objective was to address market distortions. JGB purchases have been reduced significantly recently, but the 10-year yield has remained around zero. We think the first step of policy normalization from YCC would be an increase in the long-term yield target. The BoJ will likely be the last to taper among DM central banks and current policy settings should be maintained through end-2022.

Emerging Markets Outlook

Simona Mocuta
Senior Economist
Global Macro and Policy Research

The recovery in emerging markets is lagging that of developed markets, but rebounding global economic activity offers a tailwind and we expect the recovery gap to narrow in late 2021 and into 2022 even as EM central banks tighten earlier.

Emerging Markets: COVID's Lasting Scars

The incoming macro data out of emerging markets (EM) has been mixed recently, mirroring COVID developments. While the overall number of new COVID cases has declined compared with a few months ago, we remain in a pattern of "rotating hot spots" rather than in a universal downtrend. A new concern is around vaccine efficacy against new variants. While vaccine deployment is picking up, the most common vaccines in emerging markets appear to be less effective against the newer, more transmissible, virus variants. This introduces the risks of a looser relationship between vaccination rates and reopening and could muddy the macro forecasting waters in coming months.

Nonetheless, despite these challenges, there is undeniable progress against the disease, progress that will translate into further steps towards normalization of economic activity. While the EM recovery lags the DM recovery in the immediate aftermath of the COVID crisis, that gap narrows drastically in the latter part of 2021 and in 2022.

As we discussed last quarter, EMs as a whole are starting to withdraw monetary and fiscal policy support sooner than most developed market (DM) countries. This is driven by a three-fold consideration: as a group and with the exception of China, EM countries lack the advantage of global reserve currencies. With interest rates having hit record lows during the pandemic, the interest rate differential between EMs and DMs has shrunk, exposing local currencies to increased capital flight risk. The second factor is that, with inflation expectations less well anchored across EMs, the very loose monetary policy stance adopted at the height of the crisis risks stoking domestic inflation. Finally, the sustainability of debt, and especially foreign currency denominated debt, is an additional impetus towards the upcoming shift to a less supportive policy stance.

On the positive side of the ledger is the reality of booming global manufacturing activity. All else being equal, this benefits emerging markets given their roles as manufacturing hubs and/or commodity producers. Another positive is that, even as EM domestic policy support wanes, there is considerable external "leakage" in the ongoing fiscal expansion in DMs, perhaps especially so in the case of the United States. As such, there will be an indirect benefit to EM producers, especially until the global economy is indeed fully re-opened, allowing for pent-up services demand to fully materialize and consumption to skew more heavily towards services.

Global Capital Markets Outlook

Jerry Holly
Senior Portfolio Manager
Investment Solutions Group

The outlook for many growth-oriented asset classes appears positive, notably so for equities and commodities. While inflationary risks require monitoring, on balance it appears that markets can continue to push higher as economies reopen from the pandemic.

Nomothetical-ly Speaking

With equity markets notching fresh all-time highs, credit spreads holding historically tight, and all manner of investor sentiment metrics conveying a sense of pristine conditions, it might be easy for investors to generalize the situation and assume that all is well. And while we continue to see a constructive outlook in many markets, it is also important that we not overlook the more specific risks that are present in order to inform our risk management and portfolio positioning. Our approach to this puzzle is to blend rigorous quantitative modeling with inquisitive debate and human judgment.

The division between general relationships and specific conditions is one that can be found in many fields. In his masterful study on inflation, *The Great Wave*, David Hackett Fischer contrasts economics with history. He notes "economics… is a nomothetic discipline. It seeks knowledge through generalization. History is an idiographic discipline. It studies things in their particulars."[1] In much the same way, our quantitative modeling seeks to generalize the world and detect relationships that prevail, on average, but are difficult for people to notice on their own. The discretionary part of what we do seeks to determine what those same models might be missing, what are the specific risks today that may not be adequately captured in the averages.

For the most part, our quantitative (or nomothetic) evaluation of markets today continues to promote a healthy outlook for many growth-oriented asset classes such as equities and commodities, and even for some pockets of bond markets as well. Sentiment may be a bit extreme and argue for less-than-full risk budgets, but on balance it appears that markets can continue to push higher as economies reopen from the pandemic. On the idiographic side of the ledger, what is it that seems a bit different today compared with other periods where we have experienced rising stock markets, low levels of volatility and supportive monetary policy? If the reference from the prior paragraph is any clue, inflationary risks stand out as the most obvious pitfall to protracted progress in the months ahead.

Inflated Sentiment

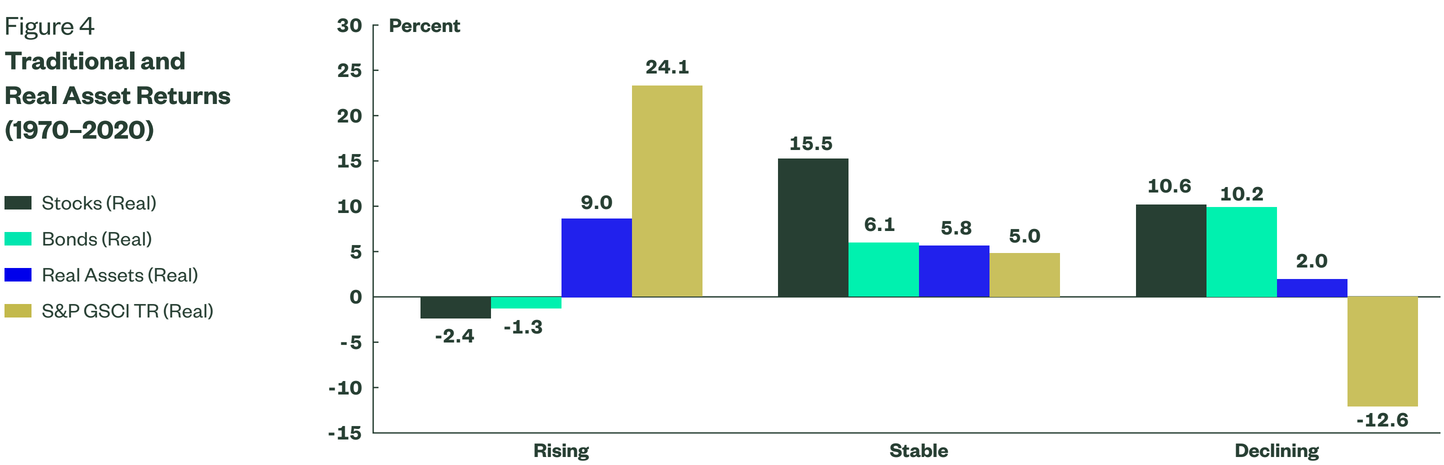
If one only considers the price inflation environment in isolation, it might seem odd that measures of investor sentiment are so untroubled. Whether inflationary risks are derived mainly from base effects, loose monetary and fiscal policy, worker shortages or supply chain disruptions, the end result has been reflected in price indexes in dramatic form. University of Michigan short-term inflation expectations have jumped above 4% for the first time since 2011, Chinese producer prices vaulted higher at an annual rate of 9% in May, and the US Core CPI index registered its largest monthly move since 1982 in the quarter just passed — to name just a few of the notable prints.

Yet these elevated inflation readings and expectations have not translated into more difficult financial conditions or risk-off sentiment readings. The Goldman Sachs US Financial Conditions Index, which incorporates risk-free interest rates, exchange rates, equity valuations and credit spreads, continues to plumb new lows. A broader measure from the Chicago Federal Reserve portrays easy and loosening financial conditions. Our own Market Regime Indicator (MRI) is a touch more circumspect — at least in terms of its impact on our portfolio construction. The MRI also suggests low levels of risk, but it has reached levels that are so low that it may reflect a degree of complacency on the part of investors. In isolation, this type of reading is not one that would cause us to go outright short, or underweight, risk assets but it does inform our risk budgeting (tighter) and the magnitude of our positions (a more moderate overweight to growth assets).

Equities as Inflation Hedge: Up to a Point, Lord Copper

If inflation is the concern, then perhaps equity investments should be viewed as both a growth asset as well as a defender against lost purchasing power. After all, equities have generally fared well during periods of above average inflation in the recent past. However, our real asset portfolio managers have looked at these relationships over the longer arc of history and found that broad-based equities often struggle as price indexes shift upward. For example, Figure 4 illustrates that real (inflation-adjusted) returns for equities in periods of rising inflation over the past fifty years has been -2.4%, an outcome even worse than fixed income investments!

Figure 4
Traditional and Real Asset Returns (1970–2020)



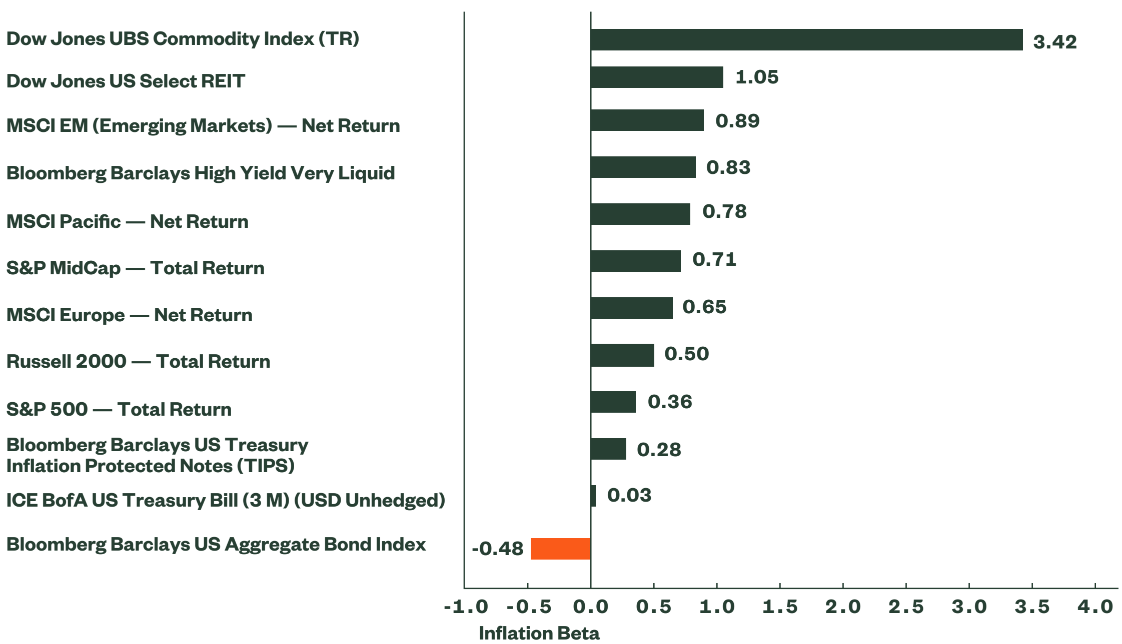
Sources: State Street Global Advisors and FactSet, as of December 31, 2020. Asset Classes are represented by the S&P 500 Index, Morningstar's US Long-Term Govt. Bond Index, Real Asset Composite Index, S&P GSCI TR and US Inflation (CPI-U). Based on annual calendar year returns with quarterly data. Past performance is not a guarantee of future results. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns do not reflect capital gains and losses, income, and the reinvestment of dividends. Performance calculated in USD.

While a return to 1970s-style inflation with its concomitant oil price shocks, recycled petrodollars and international lending boom does not find its way into our base case for the second half of 2021, a consideration of the downside effects of a more durable inflation environment is certainly worthwhile. Our near-term outlook continues to favor equities over most other broad asset classes. Our MRI contributes to this view but our bottom-up modeling also favors stocks as momentum trends remain firm and expectations surrounding top line sales growth and earnings remains robust. We have some fear that markets may not be properly appreciating the potential for earnings in the United States to face headwinds from a less accommodative tax and regulatory landscape, but those risks will inevitably ebb and flow in the months ahead.

From a regional and sector perspective, it might seem as though we have lowered our guard with respect to inflationary defenses, at least in some spots. Figure 5 plots some of the assets prevalent in our multi-asset portfolios alongside their inflation betas.[2] As can be seen, commodities top this chart by a distance, but within equities assets such as real estate investment trusts (REITs) show up quite well. REITs happen to be one of our larger underweight positions, driven by relatively poor earnings and sales sentiment, unappealing quality characteristics, steep valuations and still-weak fund flows. Coming back to the idiographic lens, we think the quantitative factors may be penalizing REITs a bit too harshly and have moderated that stance amidst upside risks associated with economic reopening and the potential rehabilitation of cash flows and dividend payments from the sector.

Emerging markets sport relatively robust inflation betas and we do hold an overweight allocation. Firm PMIs, improving trade data and a rebound in cyclical sector revenues lend support to our outlook for emerging markets. Across developed markets, our preferences are in more direct opposition to the inflation beta concept. Here we prefer US and European equities and we maintain an underweight to the Pacific region. US equities have remained resilient, notwithstanding some potentially underappreciated tax risks as has been noted. European stocks look good from a valuation perspective, but we've also seen improving sentiment and short-term momentum. Ongoing lockdowns in Japan have weighed on activity in the region and this has shown up in depressed sentiment and momentum factors within our models – and an underweight allocation in our portfolios.

Figure 5
Inflation Betas (Jan 2001–May 2021)



Sources: State Street Global Advisors, FactSet, as of May 31, 2021. Inflation betas represent the beta coefficient of a linear regression of monthly inflation (Consumer Price Index — CPI-U, US City Average, 1982–1984=100) against monthly returns of the various asset classes for the time period spanning 12/29/2000–05/31/2021.

Fickle Fixed Income Patterns

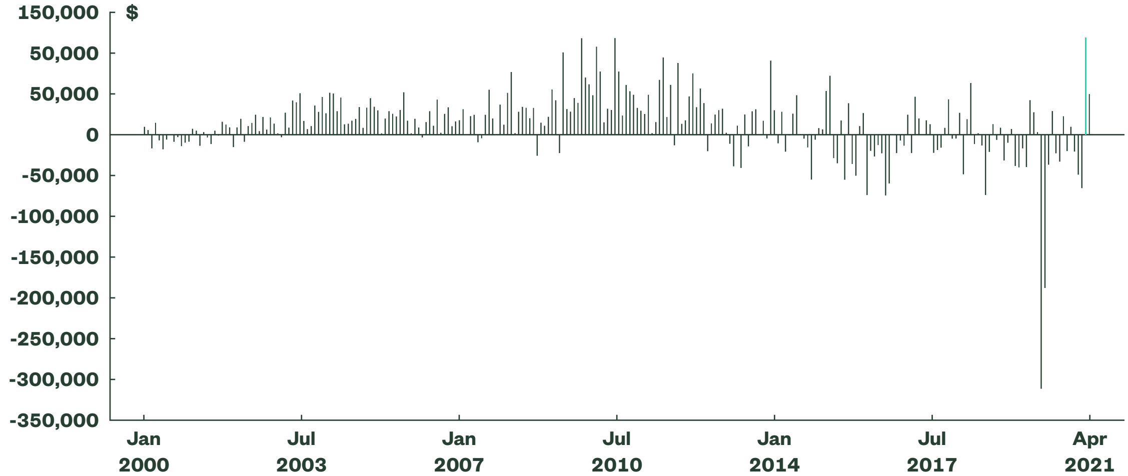
Assets with a fixed payment stream would likely seem to be the most vulnerable to any persistent levitation in price indices or expectations therein. But with inflation metrics surging in the most recent quarter, bond markets actually began to stabilize. And when the Federal Reserve surprised markets in mid-June with some relatively hawkish dot plots it dealt a temporary body blow to almost all asset classes — five-year real yields shot up by almost 20 basis points at one point on the day. But long bonds were, in the view of some, surprisingly resilient during this affair. This did not seem to be such an aberration, in our view. After all, the more distant the cash flows, the more important inflationary risks become. If those risks appear to be temporarily diminished by a more vigilant monetary authority then it seems reasonable that longer duration assets should find some support. But the episode, and the inflationary backdrop that served as its catalyst, is worth further analysis. Our nomothetical number-crunching provides some insight on the dynamic.

Based on simple intuition, it is hard to argue with the idea that investors should become more wary of fixed income investment when inflation is possibly on the rise. Yet our evaluation of reported inflation and ensuing levels of interest rates finds a seemingly counterintuitive pattern. In most, but not all, periods of above average inflation, interest rates usually descend following an initial move higher in price levels. Over the past decade, the relationship has a roughly 75% hit rate.

Consider the rate and inflation environment from 2011 through 2013. Inflation rose from around 1% to almost 4% by September of 2011, yet interest rates started moving lower after the initial burst of inflation that was related to the second leg of a commodity rebound post-GFC. And from mid-2012 into 2013, inflation rates eased but rates were jolted higher mainly due to the taper tantrum. It was a similar story for the next three years, whereby plummeting oil prices would send headline CPI into deflationary territory in early 2015. But rather than ushering in persistent deflation and lower rates, it served as a reversionary base for interest rates to advance.
Our modeling results did not hold up so well from around 2016 through 2018. With inflation rebounding from the commodity-driven deflation of early 2015, we would have anticipated interest rates to ease after the preliminary acceleration in prices. But the Trump election victory in the United States sent interest rates sharply and persistently higher during this period.

More recently, the relationship appears to have recovered its efficacy. The dramatic downturn in prices caused by the COVID pandemic led to consistently higher interest rates as the panic in markets subsided and our modeling suggests that the recent surge in inflation might coincide with some better returns ahead for bond investors. So while we are net underweight fixed income in our portfolios, we also favor longer duration corporate and Treasury bonds — a capital efficient way to target duration in multi-asset portfolios. And with interest rates comparatively depressed in other developed markets, as well as firm demand from pensions and international investors (see Figure 6), we think the relative stability exhibited by the long end of the curve can continue in the near term.

Figure 6
Total Net Foreign Purchases of US Treasury Bonds and Notes



Sources: US Department of the Treasury as of April 30, 2021.

Firm Momentum for Raw Materials

If we return to the chart on inflation betas (Figure 5), it is clear that investing in commodities is one of the most effective ways to protect against rising inflation. This should not be terribly surprising since many commodities are, at some level, the base ingredients for more complex and hedonically-adjusted price indexes. And in this respect, our short-term views do align with a meaningful stake in raw commodities. Our view is partly informed by the baseline inflation risks, but also draws upon strength in momentum indicators as well as favorable near-term curve dynamics.

Additionally, both the Organization for Petroleum Exporting Countries (OPEC) and the International Energy Agency (IEA) have issued bullish demand forecasts for oil. On the supply side, the IEA also released its report *Net Zero by 2050: A Roadmap for the Global Energy Sector* which promotes the idea that no new oil or gas projects be approved. Couple that with the US Department of the Interior suspending licenses to drill for oil in the Arctic National Wildlife Refuge and you've got some intermediate term supports from both the supply and demand side of the equation.

Coming full circle, might we be in the midst of another great wave of inflation? To answer this I'd refer back to Mr. Fischer and his explanation for why the inflation of the 20th century was so misunderstood: "the data are overwhelming, and the event is so close to us that we have trouble thinking of it in historical terms."[3] While we can't fervently commit to an unambiguous upswing in inflation, we do see more prominent risks to the upside than we have for some time, even if our models don't date back to medieval times.

Sources: Bloomberg, FactSet, J.P. Morgan, Barclays, MSCI, Morgan Stanley and The Economist as of June 30, 2021.

Endnotes

1 Fischer, David Hackett (1996), pp 281. *The Great Wave — Price Revolutions and the Rhythm of History*.

2 Inflation betas represent the beta coefficient of a linear regression of monthly inflation (Consumer Price Index — CPI-U, US City Average, 1982–1984=100) against monthly returns of the various asset classes for the time period spanning 12/29/2000–05/31/2021.

3 Fischer, David Hackett (1996), pp 7. *The Great Wave — Price Revolutions and the Rhythm of History*.

SSGA Forecasts as of June 30, 2021

	2021 (%)	2022 (%)
Real GDP Growth		
Global	5.9	4.7
US	5.9	4.3
Australia	4.5	3.0
Canada	6.0	4.0
Eurozone	5.4	4.2
France	5.8	4.0
Germany	4.4	3.7
Italy	5.6	4.7
UK	6.9	5.6
Japan	3.0	2.9
Brazil	4.2	3.2
China	7.9	5.6
India	9.0	7.5
Mexico	5.2	3.5
South Africa	4.0	3.5
South Korea	3.9	3.0
Taiwan	5.0	3.0
Inflation		
Developed Economies	2.6	2.0
US	3.5	2.4
Australia	2.3	1.8
Canada	2.6	2.0
Eurozone	1.9	1.6
France	1.5	1.3
Germany	2.8	1.6
Italy	1.5	1.3
UK	1.9	1.9
Japan	0.1	0.3
China	1.8	2.6

	June 30, 2021 (%)	June 30, 2022 (%)
Central Bank Rates		
US (upper bound)	0.25	0.25
Australia	0.10	0.10
Canada	0.25	0.25
Euro	0.00	0.00
UK	0.10	0.10
Japan	-0.10	-0.10
Brazil	4.25	6.00
China	4.35	4.35
India	4.00	5.00
Mexico	4.25	5.00
South Africa	3.50	4.00
South Korea	0.50	0.75
10-Year Bond Yields		
US	1.45	1.54
Australia	1.53	1.69
Canada	1.40	1.48
Germany	-0.21	-0.12
UK	0.71	0.78
Japan	0.06	0.13
Exchange Rates		
Australian Dollar (A$/$)	0.75	0.77
British Pound (£/$)	1.38	1.50
Canadian Dollar ($/C$)	1.24	1.20
Euro (€/$)	1.19	1.20
Japanese Yen ($/¥)	110.99	101.88
Swiss Franc ($/SFr)	0.92	1.05
Chinese Yuan ($/¥)	6.46	6.69

One-Year Return Forecasts	USD (%)	EUR (%)	GBP (%)	JPY (%)	AUD (%)	CAD (%)
S&P 500	7.7	6.8	-0.9	-1.1	4.9	4.2
Russell 2000	7.9	7.0	-0.7	-1.0	5.1	4.4
MSCI EAFE	6.8	5.9	-1.7	-2.0	4.0	3.4
MSCI EM	7.0	6.1	-1.6	-1.8	4.2	3.5
Barclays Capital Aggregate Bond Index	1.2	0.4	-6.9	-7.1	-1.4	-2.1
Citigroup World Government Bond Index	-0.4	-1.2	-8.4	-8.6	-3.0	-3.6
Goldman Sachs Commodities Index	9.6	8.7	0.8	0.6	6.8	6.1
Dow Jones US Select REIT Index	3.4	2.5	-4.9	-5.1	0.7	0.1

Forecasts are as of June 30, 2021.
The above estimates based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates will be achieved.

About State Street Global Advisors

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

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

For four decades, these principles have helped us be the quiet power in a tumultuous investing world. Helping millions of people secure their financial futures. This takes each of our employees in 31 offices around the world, and a firm-wide conviction that we can always do it better. As a result, we are the world's third-largest asset manager with US $3.59 trillion* under our care.

* This figure is presented as of March 31, 2021 and includes approximately $60.33 billion of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

ssga.com

Information Classification: General

Marketing communication.

Glossary

Basis Point One basis point is equal to one-hundredth of 1 percent, or 0.01%.

Capital Expenditure (Capex) Refers to investment by a company to acquire or upgrade physical assets, such as a building, IT hardware or a new business.

Citigroup World Government Bond Index The WGBI is a widely used benchmark that currently comprises sovereign debt from over 20 countries, denominated in a variety of currencies.

Consumer Price Inflation (CPI) A widely used measure of inflation at the consumer level that helps to evaluate changes in cost of living.

Deflation A decrease in the general price level of goods and services over a given period.

GFC The global financial crisis, or GFC, refers to the period of extreme stress in financial markets and banking systems between mid-2007 and early 2009.

Goldman Sachs Commodities Index GSCI is the first major investable commodity index and includes the most liquid commodity futures.

Gross Domestic Product (GDP) The monetary value of all the finished goods and services produced within a country's borders in a specific time period. Economic growth is typically expressed in terms of changes in GDP.

Group of Seven (G7) A group consisting of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

MSCI EAFE Index An equities benchmark that captures large- and mid-cap representation across 22 developed market countries around the world, excluding the US and Canada.

MSCI Emerging Markets Index The MSCI Emerging Markets Index captures large and mid-cap representation across 23 emerging markets countries. With 834 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI World Index The MSCI World Index is a free-float weighted equity index. It includes about 1,600 stocks from developed world markets, and does not include emerging markets.

Organization of Petroleum Exporting Countries (OPEC) 13-member group of oil exporting nations founded to manage global supply and coordinate pricing.

Purchasing Managers' Index An indicator of the economic health of the manufacturing and services sectors compiled from a survey of purchasing executives.

Quantitative Easing (QE) An extraordinary monetary policy measure in which a central bank buys government fixed-income securities to lower interest rates, encourage borrowing and stimulate economic activity.

Russell 2000 Index A benchmark that measures the performance of the small-capitalization segment of the US equity universe.

S&P 500 Total Return Index The benchmark that reflects returns after reinvestment of dividends of the 500 large cap stocks in the S&P 500 Index.

The US Dollar Index Measures the performance of the US Dollar against a basket of major currencies.

Yield Curve A graph or line that plots the yields of bonds with similar credit quality, typically from shortest to longest duration.

State Street Global Advisors Worldwide Entities

Abu Dhabi: State Street Global Advisors Limited, ADGM Branch, Al Khatem Tower, Suite 42801, Level 28, ADGM Square, Al Maryah Island, P.O Box 76404, Abu Dhabi, United Arab Emirates. Regulated by the ADGM Financial Services Regulatory Authority. T: +971 2 245 9000. **Australia:** State Street Global Advisors, Australia, Limited (ABN 42 003 914 225) is the holder of an Australian Financial Services License (AFSL Number 238276). Registered office: Level 14, 420 George Street, Sydney, NSW 2000, Australia. T: +612 9240-7600 F: +612 9240-7611. **Belgium:** State Street Global Advisors Fosbury & Sons Chaussée de La Hulpe, 185 B-1170 Watermael-Boitsfort, Belgium. T: 32 2 663 2036. F: 32 2 672 2077. SSGA Belgium is a branch office of State Street Global Advisors Ireland Limited. State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Canada:** State Street Global Advisors, Ltd., 1981 McGill College Avenue, Suite 500, Montreal, Qc, H3A 3A8, T: +514 282 2400 and 30 Adelaide Street East Suite 800, Toronto, Ontario M5C 3G6. T: +647 775 5900. **France:** State Street Global Advisors Ireland Limited, Paris branch is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Paris Branch, is registered in France with company number RCS Nanterre 832 734 602 and whose office is at Coeur Défense - Tour A - La Défense 4 33e étage 100, Esplanade du Général de Gaulle 92 932 Paris La Défense cedex France. T: (+33) 1 44 45 40 00. F: (+33) 1 44 45 41 92. **Germany:** State Street Global Advisors GmbH, Brienner Strasse 59, D-80333 Munich. Authorised and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. T: +49 (0)89-55878-400. F: +49 (0)89-55878-440. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103-0200. **Ireland:** State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered Number: 145221. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano), is registered in Italy with company number 10495250960 - R.E.A. 2535585 and VAT number 10495250960 and whose office is at Via Ferrante Aporti, 10 - 20125 Milano, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Japan:** State Street Global Advisors (Japan) Co., Ltd., Toranomon Hills Mori Tower 25F 1-23-1 Toranomon, Minato-ku, Tokyo 105-6325 Japan. T: +81-3-4530-7380. Financial Instruments Business Operator, Kanto Local Financial Bureau (Kinsho #345), Membership: Japan Investment Advisers Association, The Investment Trust Association, Japan, Japan Securities Dealers' Association. **Netherlands:** State Street Global Advisors Netherlands, Apollo Building, 7th floor Herikerbergweg 29 1101 CN Amsterdam, Netherlands. Telephone: 31 20 7181701. SSGA Netherlands is a branch office of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Singapore:** State Street Global Advisors Singapore Limited, 168, Robinson Road, #33-01 Capital Tower, Singapore 068912 (Company Reg. No: 200002719D, regulated by the Monetary Authority of Singapore). T: +65 6826-7555. F: +65 6826-7501. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No. 5776591 81. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. **United States:** State Street Global Advisors, 1 Iron Street, Boston, MA 02210-1641. T: +1 617 786 3000.

Important Information

The views expressed in this material are the views of Simona Mocuta and Jerry Holly through the period ended June 30, 2021 and are subject to change based on market and other conditions. This document may contain certain statements deemed to be forward-looking statements. All statements, other than historical facts, contained within this document that address activities, events or developments that SSGA expects, believes or anticipates will or may occur in the future are forward-looking statements. These statements are based on certain assumptions and analyses made by SSGA in light of its experience and perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate in the circumstances, many of which are detailed herein. Such statements are subject to a number of assumptions, risks, uncertainties, many of which are beyond SSGA's control. Please note that any such statements are not guarantees of any future performance and that actual results or developments may differ materially from those projected in the forward-looking statements.

Risk associated with equity investing include stock values which may fluctuate in response to the activities of individual companies and general market and economic conditions.

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information.

The information contained in this communication is not a research recommendation or 'investment research' and is classified as a 'Marketing Communication' in accordance with the Markets in Financial Instruments Directive (2014/65/EU) or applicable Swiss regulation. This means that this marketing communication (a) has not been prepared in accordance with legal requirements designed to promote the independence of investment research (b) is not subject to any prohibition on dealing ahead of the dissemination of investment research.

Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates rise bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

Government bonds and corporate bonds generally have more moderate short-term price fluctuations than stocks, but provide lower potential long-term returns.

Foreign investments involve greater risks than investments, including political and economic risks and the risk of currency fluctuations, all of which may be magnified in emerging markets.

Investing in commodities entail significant risk and is not appropriate for all investors. Commodities investing entail significant risk as commodity prices can be extremely volatile due to wide range of factors. A few such factors include overall market movements, real or perceived inflationary trends, commodity index volatility, international, economic and political changes, change in interest and currency exchange rates.

Investing in foreign domiciled securities may involve risk of capital loss from unfavorable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

Investing in REITs involves certain distinct risks in addition to those risks associated with investing in the real estate industry in general. Equity REITs may be affected by changes in the value of the underlying property owned by the REITs, while mortgage REITs may be affected by the quality of credit extended. REITs are subject to heavy cash flow dependency, default by borrowers and self-liquidation. REITs, especially mortgage REITs, are also subject to interest rate risk (i.e., as interest rates rise, the value of the REIT may decline).

Investing involves risk including the risk of loss of principal.

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

Past performance is not a guarantee of future results.

All the index performance results referred to are provided exclusively for comparison purposes only. It should not be assumed that they represent the performance of any particular investment.

Companies with large market capitalizations go in and out of favor based on market and economic conditions. Larger companies tend to be less volatile than companies with smaller market capitalizations. In exchange for this potentially lower risk, the value of the security may not rise as much as companies with smaller market capitalizations.

Investments in small-sized companies may involve greater risks than in those of larger, better known companies.

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

ID612100-3665543.1.1.GBL.RTL 0721
Exp. Date: 07/31/2022