Harbour Trust Investment Management Company

Managing Your Wealth, Securing Your Future

2022 OUTLOOK *January 2022*

2022 OUTLOOK

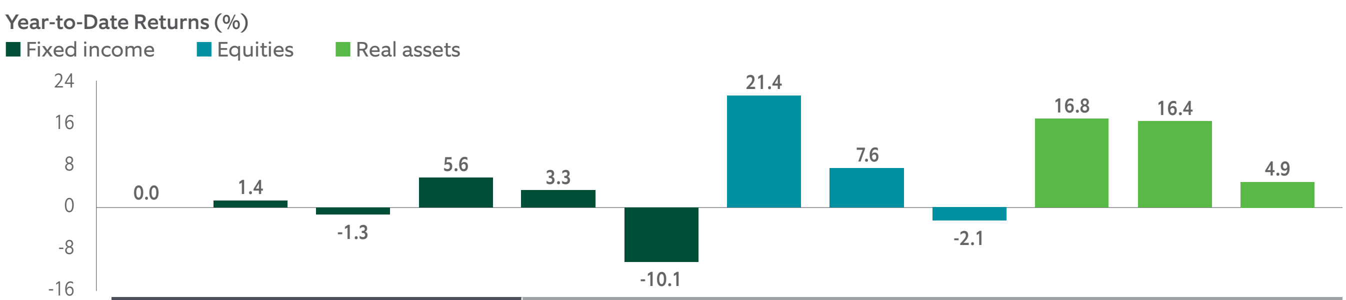
A TRANSITION YEAR

We are overweight risk — favoring developed market equities, high yield bonds and natural resources. We expect 2022 to be a year of transitions. But for the key underpinnings of stock and bond prices — corporate earnings and interest rates — we see strong earnings growth and low long-term interest rates.

We have a constructive outlook for 2022, but risk asset returns will likely fall short of 2021's. Entering 2021, we anticipated good earnings growth but thought valuations were stretched. Lo and behold, corporate profits topped expectations and more than offset lower valuations in developed markets. Emerging markets were restrained by weaker fundamentals in China. In 2022, the upcoming transition in Fed policy will be key. Developed market central bank balance sheets ballooned in recent years. Consideration of an acceleration in tapering bond purchases is now underway, a necessary precondition to rate hikes. History suggests that measured and well-telegraphed rate hikes are not disruptive to stocks and (most) bond prices. Fiscal policy is transitioning to being less stimulative, although the effect should be cushioned by bolstered consumer and business spending. Our top concern is the risk of disruptive inflation leading to premature monetary policy tightening. There are signs of easing inflationary pressures in key bottlenecks, but strong housing and labor markets (in the U.S.) warrant consideration. We expect financial markets to continue to focus on an intermediate-term easing of pricing pressures as supply chain issues improve. We also expect ongoing COVID-related uncertainty, but the global economy is adapting and corporate profitability has positively surprised. The U.S. midterm elections will be in focus in November, and history suggests a swing in seats to the Republicans. This would further sideline the importance of government policy to the markets as little impactful legislation will likely be passed.

EXHIBIT 1: IT WAS A VERY GOOD YEAR

While bond returns lagged inflation, risk assets more than made up for it.



	RISK CONTROL				RISK ASSETS							
	FIXED INCOME						EQUITIES			REAL ASSETS		
	Cash	Municipal bonds	Inv. grade	TIPS	High yield	EM debt	U.S.	Dev. ex-U.S.	Emerging markets	Natural resources	Gbl. real estate	Gbl. listed infra.
YTD	0.0	1.4	-1.3	5.6	3.3	-10.1	21.4	7.6	-2.1	16.8	16.4	4.9
2020	0.5	5.2	7.5	11.0	7.0	2.7	21.1	8.8	18.8	0.7	-8.0	-5.8
5-year	1.1	4.4	3.6	5.2	6.3	2.9	17.7	10.0	10.0	8.8	8.0	7.0

Source: Northern Trust Asset Management, Bloomberg. Year-to-date data through November 30, 2021. Five-year annualized data from November 30, 2016 to November 30, 2021. **Past performance is no guarantee of future results.**

EXHIBIT 2: 2022 OUTLOOK BY ASSET CLASS

Group	Category	Asset Class	TAA*	SAA**	Key Views
Risk Assets	EQUITIES	DEVELOPED MARKETS **5% overweight**	45%	40%	Developed market equities stand to benefit from continued economic expansion despite global growth reverting to its longer-term mean. Moreover, corporate profits have proven capable of decoupling from various economic pressures (e.g., pockets of elevated inflation), and we anticipate that resilience to continue in 2022. Developed market valuations should decline but low interest rates and a global financial system flush with stimulus will help them stay above historical averages.
Risk Assets	EQUITIES	EMERGING MARKETS **Equal-weight**	6%	6%	Emerging markets face a handful of headwinds stemming from Chinese economic, regulatory and COVID-related risks. Barring a sharp economic slowdown, China will seemingly prioritize financial stability over growth — opting for targeted (not aggressive) stimulus. Attractive valuations relative to developed markets leave us equal-weight.
Risk Assets	REAL ASSETS	GLOBAL REAL ESTATE/ INFRASTRUCTURE **Equal-weight**	4%	4%	We are equal-weight both global real estate and listed infrastructure. Compelling yields and diversified risk exposures warrant a strategic allocation. Tactically, these asset classes have proven sensitive to the volatile pandemic course. While they should benefit from a low interest rate environment, we see a better risk-reward balance in developed equities as we believe we are early into a new economic expansion.
Risk Assets	REAL ASSETS	NATURAL RESOURCES **2% overweight**	6%	4%	Demand for natural resources will remain strong as the economic expansion continues. Also, as these companies prioritize capital discipline over capital investment, strong cash flow generation will find investors' pockets. This asset class helps protect against our risk case of disruptive inflation. With attractive valuations, both relative to other risk assets and historical levels, natural resources has room to run.
Risk Assets	FIXED INCOME	HIGH YIELD **4% overweight**	10%	6%	Corporate health is strong and we expect 2022 default rates to resemble the very low levels coming out of the financial crisis. Technicals should remain quite solid. Coming off of late-2021 spread widening, we expect high yield to provide equity-like returns with a lower risk profile. High yield is our highest conviction overweight.
Risk Control Assets	FIXED INCOME	INVESTMENT GRADE **6% underweight**	29%	35%	Investment grade fixed income is our largest underweight. While we expect longer-dated Treasury yields to remain low, front-end interest rate volatility will likely remain elevated. We see much better risk-reward in high yield, given low credit risk.
Risk Control Assets	FIXED INCOME	INFLATION LINKED **3% underweight**	0%	3%	Inflation-linked bonds are a good option for inflation protection. However, lofty inflation levels are already priced in and inflation protection diminishes over time. We prefer natural resources as an inflation hedge, particularly early in economic cycles. We are underweight inflation-linked bonds.
Risk Control Assets	FIXED INCOME	CASH **2% underweight**	0%	2%	Given our expectation for continued low interest rates in a generally constructive risk taking environment, we recommend cash only be held for near-term liquidity needs.
		TACTICAL RISK POSITION: **Overweight to risk**			We have a broad-based overweight to risk built through a preference for developed over emerging market equities, credit over interest rate risk and inflation protection through risk assets. Risk asset gains will likely not come as easily as in recent years, but continuing economic growth and central bank support should be conducive to risk taking.

*TAA = Tactical Asset Allocation.
** SAA = Strategic Asset Allocation.
These recommendations, based on the Global Policy Model, do not include alternatives. We believe strategic holdings in both private investments and hedge funds can assist in increasing portfolio efficiency. However, we do not make tactical recommendations on these asset classes due to the strategic nature of the investments.

MACRO THEME REVIEW

Slowing economic growth is proving sufficiently sturdy such that risk asset valuations remain elevated.

Our 2022 outlook includes a review of our long-term capital market assumption themes, as published each year in our Five-Year Outlook. These themes drive our "forward-looking, but historically aware" approach to strategic asset allocation. They also inform our tactical one-year outlook and asset allocation positioning. We provide a broad narrative of how our themes are progressing below, while Exhibit 3 details the status of each theme individually.

From an investor's perspective, the financial market "results" are justifying the macro variable "means." That is to say, slowing economic growth is proving sufficiently sturdy such that risk asset valuations remain elevated. Meanwhile, the "transitory" nature of inflation is playing out more slowly than many expected — but is showing just enough signs of "transition" to keep central bankers dovish in their words and deeds, preventing risk asset valuations from falling.

Our "big three" themes — outlining our long-term outlook on growth, inflation and monetary policy — remain viable. Our **Reversion to Mediocrity** theme is playing out on the demand side as the debt-fueled demand recovery has less gas (U.S. savings as a percentage of disposable income is back down to pre-pandemic levels). The supply side is showing a slower reversion than anticipated, causing our **Sticking to Stuckflation** theme to play out more slowly than expected. But, as noted above, central bankers are finding "just enough" supply-side progress to maintain a dovish bias globally. Importantly, we believe this remains the case at the Federal Reserve, which is the latest central bank to show signs of **Monetary Activism** in the wake of the decision to renominate Jerome Powell as Fed chair (keeping investors happy) while also nominating Lael Brainard as vice chair — a proponent of the Fed "fighting the good fight" against income inequality and climate change (likely through a dovish bias).

EXHIBIT 3: HOW OUR INVESTMENT THEMES ARE PLAYING OUT

CMA Theme	What was said:	What we have seen:
Reversion to Mediocrity	After a brief breakout, global economic growth will revert to its longer-term mean. Debt-fueled demand will subside and automation will contain inflation. This will lead to continued low interest rates, especially as insatiable fixed income demand persists.	Growth has slowed as we — and many — expected, but its durability is something we believe will surprise investors. This keeps us overweight risk in the global policy model with a preference for developed (over emerging) market equities.
Sticking to Stuckflation	Stuckflation is being tested, but we believe it should pass. Investors agree, as they've had patience with recent high inflation. Unless we see a truly coordinated policy response, future inflation will more reflect the past decade than the past year, supporting financial markets.	We still believe inflation to be transitory — if defined as supply/demand moving back toward equilibrium without aid from excessive outside force (i.e., Fed rate hikes). We maintain our natural resource overweight to protect against the risk case.
Monetary Activism	Central banks are finding new callings, such as fighting income inequality and climate change. This expanded mission will become more prominent as inflation fears, once again, subside. We expect central banks globally to stay on the dovish side of market expectations.	The Biden administration crafted a compromise by leaving Jerome Powell as Fed chair but nominating the more "activist" Lael Brainard to vice chair. Our expectation remains that the all-important Fed will err on the side of dovishness in 2022.
Seeking Tech Independence	Technology is the new oil — but with greater economic security impacts. Both sides of the West-China divide appreciate the importance of technological independence and the requisite raw materials to get there. Expect major investment toward this aim — and further economic division.	Frankly, for the time being, oil is the "new oil" — but all sides continue to understand the need for tech independence. Most recently, Samsung announced a $17 billion investment in a new production facility in Texas, scheduled to open in 2024.
The Evolving Capitalist	Investors and business leaders recognize that they must evolve from today's "winner-take-all" capitalism. Solutions to address income gaps and the needs of all stakeholders (as opposed to just shareholders) will slowly lead to a more sustainable version of capitalism.	Change is certainly underway as companies across the economic spectrum pay up for scarce labor. But this very much remains a slow evolution. For instance, it's unclear whether this is a one-time step-up in pay or something more persistent.
Reaching Climate Consensus	A consensus is emerging on the importance of fighting climate change — increasingly market-driven. Investors are fueling the green transition, driving real corporate action more quickly and forcefully than politicians ever could. But difficult economic tradeoffs loom large.	The recent energy price spike is a good example of the flexible approach to tackling climate change. Steady progress in moving away from fossil fuels continues, but it will be a long road, requiring substantial amounts of gasoline for quite some time.

GROWTH & INFLATION

We expect growth will slow but remain above trend across developed economies. Inflation will come in lower than expectations.

GROWTH OUTLOOK

Global GDP still stands 2% below its pre-crisis level as pandemic-constrained services and emerging markets have lagged. As the pandemic continues to mature, strong household and corporate balance sheets will combine with easy financial conditions to support growth. The U.S. economy will enter 2022 with considerable momentum and the outlook for consumer and corporate spending looks strong. We expect above consensus U.S. growth of 4–5% in 2022. We have a similarly robust growth outlook for Europe. For the eurozone, despite modest headwinds from higher energy prices and supply chain disruption in the manufacturing sector, the combination of ample pent-up consumer demand, the release of NextGenerationEU funds and easing of supply chain headwinds should allow the region to maintain 4–5% growth. The U.K. growth outlook is also strong. Even though it is suffering from similar headwinds as the eurozone and Brexit disruption, the consumer is driving the economic recovery and we see growth similar to other developed markets at 4–5%.

We think Japan's growth will receive a boost from front-loaded fiscal stimulus and reach 3–4%. The easing of supply chain disruption will be particularly important for a manufacturing and export powerhouse like Japan. China's growth has been slowing and uncertainty regarding the impact of the government's Common Prosperity agenda and the associated regulatory tightening remains elevated. In addition, the important property sector has shown signs of fragility. In response, we expect the government will take incremental action to prevent growth from slipping much further. Overall, we expect growth of between 4–6% for 2022.

INFLATION OUTLOOK

Initial inflationary pressure came from the goods sector, but has now transitioned to energy price pressures and supply chain bottlenecks. There is some evidence of improvement in key areas of concern like shipping, while pressures in housing prices and wages remain a concern. Our view that inflation in 2022 will be "under" market expectations reflects our belief that investors will discount declining inflation by the end of the year. We expect U.S. inflation to recede below the consensus expectation of 3.7%. After surging higher in 2021, we expect European inflation to drift back down to roughly 2% as the impact of tax changes and higher energy prices fade. Inflation in the U.K. will be somewhat stickier but will still decline to a range of 2.5–3%. For Japan, we expect inflation of just 0–1%. These views reflect the fact that we don't expect the recovery-induced price increases to repeat in 2022. Finally, China's inflation will remain a focal point of the government and as such will in all likelihood stay rangebound at 1.5–2.5%. Of course, that's quite low given the underlying price pressures present in the country, but for now the government is clear it is focused on supporting the consumer even if it comes at the expense of the producer.

EXHIBIT 4: DECELERATING GROWTH AND INFLATION

We expect a good combination of positive growth and tamer inflation.

Key Metrics

	Real GDP (%)		CPI (%)	
	2021	2022	2021	2022
	Actual	*Consensus*	*Actual*	*Consensus*
U.S.	5.5	3.9	4.5	3.7
Europe	5.1	4.2	2.5	2.3
China	8.0	5.3	1.0	2.2

Northern Trust Outlook

Growth	Inflation
2022	2022
Surprises	Under
Surprises	Under
Disappoints	Under

Source: Northern Trust Asset Management, Bloomberg consensus forecasts. Year-over-year GDP growth and headline Consumer Price Index (CPI). Northern Trust outlook is relative to current market expectations: Growth is either "Surprises" or "Disappoints"; Inflation is either "Over" or "Under". Data as of 11/30/2021.

MONETARY & FISCAL POLICY

We don't foresee a level of monetary policy tightening that will be disruptive to economic growth or financial markets.

MONETARY POLICY OUTLOOK

Monetary policy globally will be transitioning from pandemic-related support to a more traditional framework in 2022. The lockdowns in 2020 created the largest drop in global GDP since World War II, while the subsequent recovery has brought the fastest growth rates experienced in 50 years. Inflation in 2021 was well above forecasted levels, and over the coming quarters policymakers will vigorously debate inflation prospects. The output gap (how far current GDP is below potential) took eight years to close following the global financial crisis, supporting a low-inflation environment. Strong economic reports will raise concern about a quicker-than-expected closing of the output gap. In this way, economic "bad news" of slower growth could actually be well-received by financial markets. The Federal Reserve has already indicated that it intends to complete the tapering of its bond buying program in 2022 — potentially accelerated by continued high inflation prints. We do note, however, that an expected decline in Treasury issuance should offset this negative technical factor. We anticipate one rate hike in 2022 from the Fed, and believe the market has priced in too many (roughly 5) hikes by the end of 2023.

The European Central Bank (ECB) is expected to keep monetary policy easy as inflation is driven by a narrow set of temporary drivers. It will taper its quantitative easing program during 2022 but we do not foresee any rate hikes. We think the Bank of England will start hiking rates in 2022, but it will probably move slowly and cautiously and hike no more than twice. The Bank of Japan will likely remain highly accommodative and Japanese interest rates across the yield curve will remain anchored close to zero. In China, the central bank will gradually ease monetary policy to support domestic economic growth. We do not foresee big moves, however, but rather incremental adjustments based on economic need. Overall, we view monetary policy in the U.S., Europe and China as dovish and don't foresee a level of monetary policy tightening that will be disruptive to either economic growth or the financial markets.

FISCAL POLICY OUTLOOK

Fiscal policy is an expected headwind to economic growth across the developed world as COVID support is discontinued and the baton for driving economic growth is passed from the public to the private sector. However, a fiscal deficit of 6.5% in the U.S. (and 5.1% across all developed markets) is still quite high given the state of global growth (see Exhibit 5). We expect fiscal policy to be an economic drag in the U.S. as the economic impact from the infrastructure bill won't be material for several years and we think the Democrats will struggle to pass further spending programs. However, the release of NextGenerationEU funds in the eurozone and the announced fiscal stimulus in Japan will ease the transition in these regions.

EXHIBIT 5: COOPERATIVE BANKERS

We expect central bank policy to remain dovish in 2022.

Key Metrics

	Central bank rate (%)		Fiscal deficit (%)	
	2021	2022	2021	2022
	Actual	*Consensus*	*Actual*	*Consensus*
U.S.	0.25	0.55	-12.4	-6.5
Europe	0.00	0.00	-7.4	-4.0
China	4.35	4.35	-5.0	-4.4

Northern Trust Outlook

	Monetary Policy	Fiscal Policy
	2022	2022
U.S.	Dovish	Drag
Europe	Dovish	Boost
China	Dovish	Boost

Source: Northern Trust Asset Management, Bloomberg consensus forecasts. Central bank rates: Federal Reserve target rate (upper bound); European Central Bank refinancing rate; People's Bank of China 1-year lending rate. Northern Trust outlook is relative to current market expectations: Monetary policy is either "Dovish" or "Hawkish"; Fiscal policy is either "Boost" or "Drag" (in regards to its economic growth impact). Data as of 11/30/2021.

INTEREST RATES

- Interest rates — notably in the U.S. — took a ride in 2021; the 10- year Treasury yield started the year at 0.9%; topping out at 1.8% and on-track to end closer to 1.5%.
- We expect interest rates to remain low in 2022 as well — with inflation receding, growth normalizing and demand for fixed income remaining high.
- Given continued low-rate expectations, we remain comfortable with taking on some duration risk in fixed income portfolios, but we prefer credit risk (see next page).

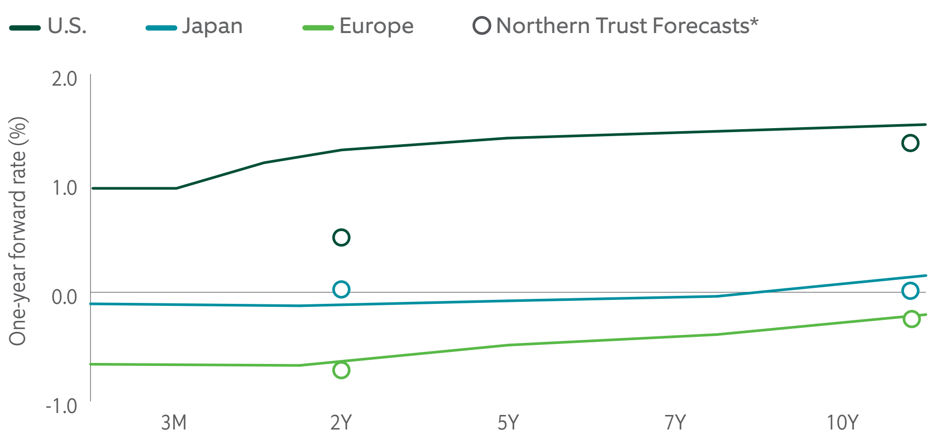
Treasury yields operated in a fairly volatile manner in 2021. Initial optimism surrounding vaccines and economic reopenings led to a steep rise in longer rates during the first quarter. Consumer strength, large fiscal stimulus and global economic reopening led to a faster than expected recovery. Interestingly, longer rates then proceeded to fall, even as inflation data and economic growth rates reached some of the highest levels in decades. Most investors saw this as a signal that economic data would mean-revert and there would be a lower terminal Fed funds rate once the Federal Open Market Committee (FOMC) eventually begins to tighten. In the back half of the year, global central banks began to awaken to inflation pressures and indicated a tightening cycle might be near. This time, front end rates bore the brunt of the selling as the FOMC indicated it might be time to reduce extraordinary measures and make sure the inflation genie does not escape the bottle. Back end rates stayed below the March peak given limited investor expectations for higher longer term inflation and a prolonged tightening cycle.

As we head into 2022, central banks have started to reel in emergency stimulus measures. Although the Fed maintains that a reduction in its balance sheet is separate from tightening, it has mentioned that inflation is lasting a bit longer than policymakers had hoped. The central bank is monitoring the situation carefully. Although front end rates will likely experience volatility around monetary policy developments and COVID-19 variants, back end rates should remain stable at historically low levels. Inflation expectations have come well off of their peaks, though they do remain elevated near long-term highs. We expect inflation to begin declining as the year proceeds. Fiscal stimulus will likely move from a tailwind to a headwind, which should limit back end rate moves. Risks to our view remain three-fold: (1) If the economy is stronger for longer, then perhaps the timing and length of a tightening cycle will need to be reevaluated (affecting front end rates and longer term premiums); (2) if inflation remains sticky, then we would also look at our front end rate exposures; and (3) conversely, if central banks revert to their old playbook, we would expect a flatter yield curve as long rates rally. In any case, we expect longer dated rates to remain lower for longer.

EXHIBIT 6: CALL US RATE SKEPTICS

We do not believe the Fed will hike rates as much as the markets do — partially due to stubborn long end yields.

Market Yield Curve Forecasts (% One-Year Forward Rate)



Source: Northern Trust Asset Management, Bloomberg. Germany serves as a proxy for Europe. One-year forward rates as of December 3, 2021. *Dots represent NT 6-month midpoint forecasts.

CREDIT MARKETS

- Credit risk proved less risky than interest rate risk in 2021; high yield returns were modest but investment grade returns were negative as interest rates rose.
- Investment grade returns should move back into positive territory in 2022 while high yield returns could rival those of equity markets (with a lower risk profile).
- High yield represents the highest conviction overweight in our global policy model, given strong liquidity, continued low interest rates and solid fundamentals.

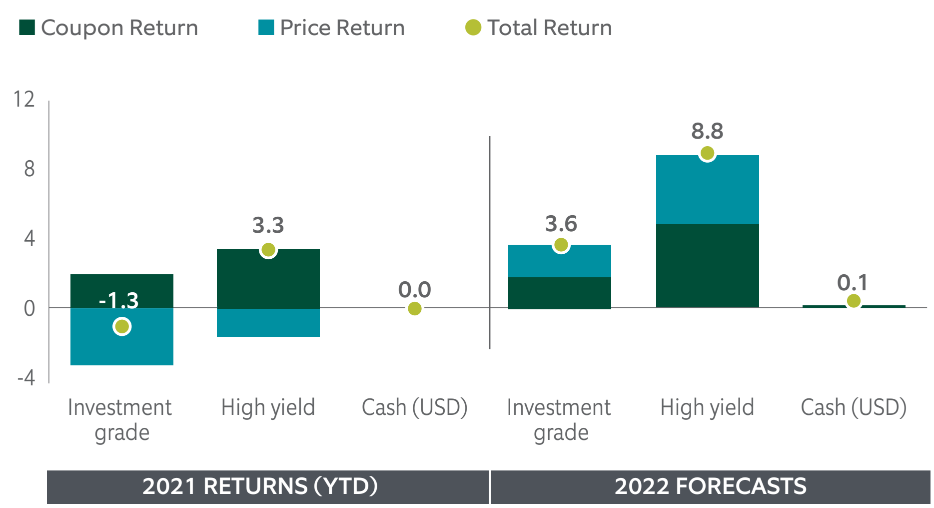
Fixed income returns in 2021 were impacted by interest rate risk and credit risk. The "everything" rally that began last November continued throughout the first part of the year as developed markets introduced wide-ranging vaccination programs. Optimism around economic normalization coincided with significant pent-up demand, which provided support for lower quality and cyclical sectors to outperform. Asset classes that are positively correlated to interest rates suffered as rates rose along with inflation expectations. Broad-based increases in commodities, better than expected earnings and wide open capital markets led to the highest issuance on record for high yield, while investment grade was not far from 2020 levels. Strong corporate balance sheets and a rebound in earnings led to a precipitous drop in the default rate to levels well below the long-run average.

The default forecast and continued ratings upgrade expectations support our favorable outlook for credit. We think high yield's improving credit fundamentals and low default rates — which are likely to stay close to 1% — will support capital structures. The high yield market has never been of higher quality and, in this context, current spread levels continue to offer value. Global investors continue to search for assets that provide income and serve as a hedge for interest rate volatility, which should continue to support high yield valuations. Our favorable view on high yield is reinforced by ongoing monetary policy accommodation and advantageous sector composition amid current inflation concerns. Our outlook for investment grade is more subdued. We believe Treasury rates will remain low and investment grade credit spreads will remain near current levels, providing low but dependable total returns. Our base case of low rates, improving supply chain conditions and strong consumer balance sheets should benefit credit valuations of investment grade bonds. High yield is our highest conviction overweight, while investment grade will continue to serve as a ballast in portfolios for which we expect it to provide a nice return over cash in 2022.

EXHIBIT 7: HIGH YIELD OVER INVESTMENT GRADE

Our call for continued low rates and tighter credit spreads makes high yield an attractive asset class heading into 2022.

2021 Returns, 2022 Forecasts (%)



Source: Northern Trust Asset Management, Bloomberg. 2021 total returns through November 30, 2021. Proxies: Investment grade - BBG U.S. Aggregate; High yield - BBG High Yield 2% Issuer Capped; USD cash - BBG U.S. Treasury Bills 1 - 3 months.

Forecasted returns do not show actual performance and are for illustrative purposes only. They do not reflect actual trading, liquidity constraints, fees, expenses, taxes and other factors that could impact the future returns. Stated return expectations may differ from an investor's actual result. The assumptions, views, techniques and forecasts noted are subject to change without notice. Please see additional disclosure at the end of this document.

EQUITIES

- Returns in 2021 varied across the major regions; the U.S. put forth another strong performance but markets outside the U.S. struggled — notably emerging markets.
- We expect continued — and more uniform — gains across the major regions in 2022, as earnings growth marches higher and valuations remain elevated.
- Given little differentiation in our regional return forecasts, we favor the less risky developed markets over emerging markets.

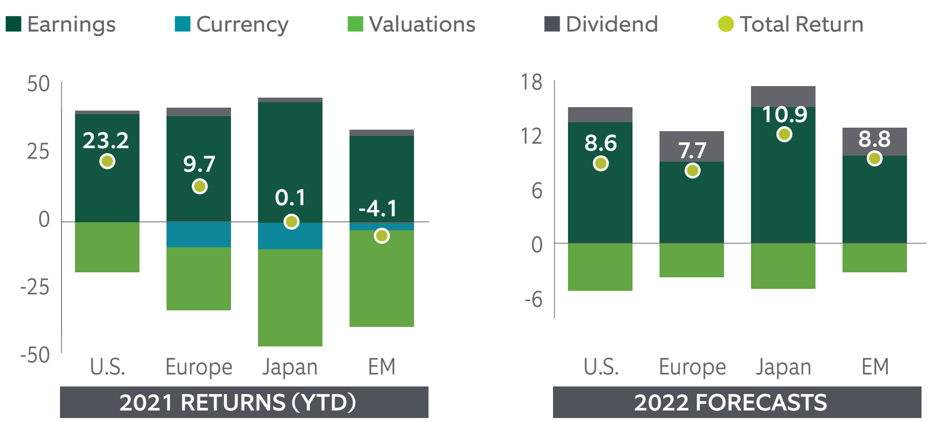
2021 has been a very good year for global equities, rising 15% so far, but with large dispersion among the different regions. U.S. equities came out on top with a return of 22% and remarkably few hiccups along the way. The emergence of the Delta and Omicron variants caused modest pullbacks, as did a brief period of rising interest rates. However, before long the U.S. equity market found its footing and marched from new high to new high. Europe was able to track the U.S. quite closely for most of the year on a local currency basis but a bigger pullback on the Omicron variant put it in second place with a 17% return. Japan's equity market was more volatile due to political gyrations around the elections and returned 10%, but the real outlier in a negative sense was emerging markets (EM) with a return of -4%. A toxic combination of slowing growth in China combined with regulatory tightening and property sector tensions held back EM equities. India and emerging Europe were positive outliers but they could not compensate for the declines in China, Brazil and Turkey among others.

Although global equities had a good year, it is important to note that valuations actually fell during the year. Earnings growth in the pandemic recovery has been so robust that it handily outpaced market returns, causing valuation multiples to decline in all the major regions. From the context that multiples were well-above normal coming into the year this was in line with expectations. However, it means the market is on a firmer footing now. Multiple contraction next year is expected to be a smaller headwind than it was this year. In terms of earnings growth, we are cautiously optimistic that companies are resilient in their ability to cope with rising input prices and COVID-19 disruption. Consumers in the developed world are sitting on a mountain of excess savings, indicating pent-up demand will continue to support the recovery. Combined with healthy pricing power, this should allow companies to maintain their profit margins. Overall, this constructive backdrop means we start 2022 with an overweight to developed market equities. In emerging markets, we are sticking to an equal weight, given the elevated uncertainty for the growth and regulatory outlook in China.

EXHIBIT 8: DEVELOPED MARKETS OVER EMERGING

We believe developed markets can provide similar returns to emerging markets with lower risk.

2021 Returns, 2022 Forecasts (%)



Source: Northern Trust Asset Management, Bloomberg. 2021 returns through November 30, 2021. Proxies: U.S. - S&P 500; Europe - MSCI Europe; Japan - MSCI Japan; EM (Emerging Markets) - MSCI Emerging Markets.

Forecasted returns do not show actual performance and are for illustrative purposes only. They do not reflect actual trading, liquidity constraints, fees, expenses, taxes and other factors that could impact the future returns. Stated return expectations may differ from an investor's actual result. The assumptions, views, techniques and forecasts noted are subject to change without notice. Please see additional disclosure at the end of this document.

REAL ASSETS

- Real assets enjoyed a more successful 2021 (vs. 2020); natural resources and global real estate showed notably constructive returns.
- Our quantitatively driven forecasts are supported by a constructive equity market environment; global real estate should benefit from a positive credit outlook.
- We are overweight natural resources, which we believe will generate returns above our quantitative forecast while also protecting against the risk of lingering inflation.

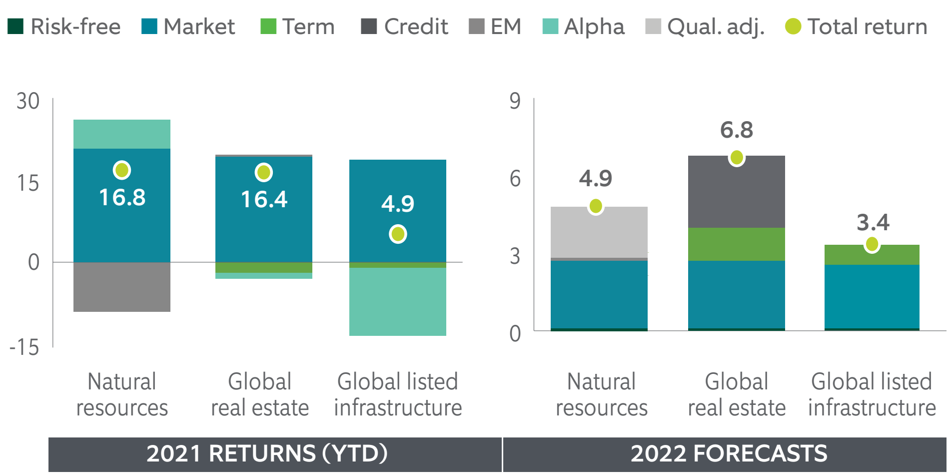
After a very disappointing 2020, 2021 brought a better return experience across the real asset landscape. Natural resources got off to a hot start in 2021 as the economy surged back to life, taking the price of oil and other commodities with it. The return of pandemic fears via the various variants throughout the back half of the year, combined with increased speculation around Fed tapering, led to sideways trading from June on — but the asset class still managed returns of around 20%. Global real estate started the year a bit slower as investors tried to determine the new equilibrium for office and retail space, but momentum grew throughout the year as the reopening progressed and low rates boosted the interest rate sensitive asset class. As our outlook goes to press, global real estate is among the best performing real assets — a friendly reminder of the power low expectations (and resulting low valuations) can have on performance. Listed infrastructure yielded the least impressive return of the three as sharp pipeline gains were muted by disappointing rail and airport returns and the lower beta utility stocks.

Consistent with our five-year outlook, we leverage a factor-based approach to return forecasting across the real assets space (that is, asset class factor exposures multiplied by our factor return forecast). All real assets have significant equity exposure and are, therefore, supported by our constructive market outlook. Global real estate and listed infrastructure have notable interest rate exposure while global real estate gets an extra boost from its credit exposure — a factor on which we are also constructive. Meanwhile, natural resources have historically shown exposure to the emerging market risk factor. But, here, the forward looking view may deviate from the historical relationship because natural resources may not be as dependent on demand out of China. We believe natural resources will be supported by favorable supply/demand dynamics as the global economy continues its expansion. We have qualitatively increased our natural resource forecast and recommend a tactical overweight, given its constructive fundamentals and reasonable valuations, and as a way to protect against the risk of continued inflation.

EXHIBIT 9: A QUANT APPROACH TO REAL ASSETS

Risk factor exposures suggest solid 2022 real asset returns; natural resources have upside.

2021 Returns, 2022 Forecasts (%)



Source: Northern Trust Asset Management, Bloomberg. Regressions calculating factor exposure (beta) run from 12/31/2002 to 3/31/2021. Term exposure is defined as the return premium associated with taking on maturity risk; that is, of investing in longer term bonds. EM = emerging market. 2021 total returns through November 30, 2021. Proxies: global listed infrastructure - S&P Global Infrastructure; natural resources - S&P Global Natural Resources; global real estate - MSCI ACWI IMI Core Real Estate.

Forecasted returns do not show actual performance and are for illustrative purposes only. They do not reflect actual trading, liquidity constraints, fees, expenses, taxes and other factors that could impact the future returns. Stated return expectations may differ from an investor's actual result. The assumptions, views, techniques and forecasts noted are subject to change without notice. Please see additional disclosure at the end of this document.

CONCLUSION

Our base case outlook for 2022 focuses on slowing but sustainable growth, along with resilient corporate profits.

Returns in global risk markets were much better than expected in 2021, underpinned by strong corporate fundamentals and well-behaved interest rates. Add this year to the exhibit book of reasons to stay fully invested, as high starting valuations scared off some investors but proved justified by strong earnings. We were assessing the impact of COVID-19 all year, and enter 2022 facing the spread of the Omicron variant. Our framework for assessing the impact of this variant and potential future ones focuses on severity, treatability and testing. As long as new variants don't lead to serious degradation in mortality, vaccine efficacy or accuracy of testing, we don't expect them to derail the global economic expansion. This is our inclination as it relates to Omicron while we await detailed health data. We do see the developed economies as generally better positioned to handle the pandemic, and risks to the supply chain in emerging economies will be closely monitored.

Super-easy monetary and fiscal policy has led to concerns about market bubbles, and there have certainly been pockets of excess. We have seen rolling corrections in some of these areas, like special purpose acquisition companies (SPACs) and speculative growth stocks. Equity market sentiment appears relatively neutral with the AAII Sentiment Survey, put/call ratio and short interest ratio all near average levels. High yield spreads have somewhat increased of late as a sign of some investor hesitation, but we expect them to tighten throughout 2022 alongside strong fundamentals.

Of the transitions the markets will wrestle in 2022, inflation will be the most impactful and carries the highest risk. Market expectations are that inflation will start to moderate in 2022 but the implied five-year inflation rate priced into markets is a still high 2.8–2.9% for the U.S., moderating to 2.4% over the following five years. The path of inflation during 2022 will be critical to the transition of central bank policy, as the Fed considers accelerating its tapering of bond purchases in response to higher than expected current inflation. The transition of fiscal policy looks fairly predetermined, with the one potential swing factor being any further spending programs from the Democrats in the U.S. — of which we are doubtful.

Our base case outlook for 2022 focuses on slowing but sustainable growth, along with resilient corporate profits. The key components of our tactical asset allocation recommendations (detailed on page 2) include a focus on developed market equities over emerging market equities, favoring credit exposure through high yield bonds over interest rate risk in investment grade bonds and overweighting natural resource equities as both a continuing growth and inflation-hedge play. Our earnings growth estimates range from 9% for emerging markets to 13% for the U.S., allowing some further valuation compression in 2022. This strong corporate performance should support the previously mentioned high yield spread tightening, generating attractive returns for high yield bonds. The history of central bank tightening cycles shows that positive equity and fixed income returns can be realized in steady, well-telegraphed tightening cycles — the scenario we expect in 2022.

CAPITAL MARKET EXPERTISE

Every year, Northern Trust's Capital Market Assumptions Working Group develops forward-looking, historically aware forecasts for global economic activity and financial market returns — which drive our five-year asset class return expectations and inform our asset allocation decisions.

All of this comes together in the form of our long-term strategic asset class allocation suggestions, which are used by institutional and individual investors worldwide.

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