Vanguard

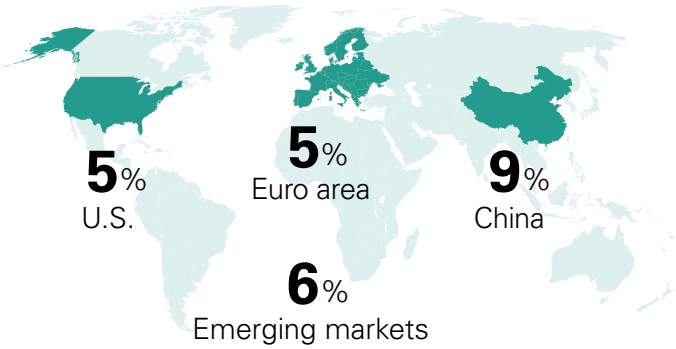
ECONOMIC AND MARKET HIGHLIGHTS

2021 outlook at a glance

Approaching the dawn

- Even with an effective vaccine in sight, the recovery's path is likely to prove uneven and varied across industries and countries.
- We anticipate some modest reflation but not a return to high inflation.
- Given the strong recovery in global equity prices, the risk of a sharp downturn over the next three years remains elevated.
- Lasting effects from the pandemic will be multifaceted, yet the global economic trajectory will be more similar to the pre-COVID world.

Expected growth



Note: Growth figures are rounded.

Sources: Vanguard and Refinitiv, as of September 30, 2020.

Investment outlook

Our ten-year, annualized, nominal return projections, as of September 30, 2020, are shown below. Please note that the figures are based on a 1.0-point range around the rounded 50th percentile of the distribution of return outcomes for equities and a 0.5-point range around the rounded 50th percentile for fixed income.

Equities	Return projection	Median volatility
U.S. equities	**3.7%–5.7%**	16.9%
U.S. value	**4.8%–6.8%**	18.7%
U.S. growth	**1.1%–3.1%**	18.1%
U.S. large-cap	**3.6%–5.6%**	16.5%
U.S. small-cap	**3.7%–5.7%**	21.6%
U.S. real estate investment trusts	**3.3%–5.3%**	19.5%
Global equities ex-U.S. (unhedged)	**7.0%–9.0%**	18.6%
Fixed income		
U.S. aggregate bonds	**0.7%–1.7%**	4.0%
U.S. Treasury bonds	**0.3%–1.3%**	4.1%
U.S. credit bonds	**1.3%–2.3%**	5.6%
U.S. high-yield corporate bonds	**2.7%–3.7%**	10.3%
U.S. Treasury Inflation-Protected Securities	**0.4%–1.4%**	6.3%
U.S. cash	**0.6%–1.6%**	0.9%
Global bonds ex-U.S. (hedged)	**0.5%–1.5%**	2.4%
Emerging markets sovereign	**2.3%–3.3%**	10.5%

These probabilistic return assumptions depend on current market conditions and, as such, may change over time.

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model® regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.

Distribution of return outcomes from the VCMM are derived from 10,000 simulations for each modeled asset class. Simulations are as of September 30, 2020. Results from the model may vary with each use and over time. For more information, see page 4.

Source: Vanguard Investment Strategy Group.

Global economy in 2021: Closing the immunity gap

While the global economy continues to recover as we head into 2021, the battle between the virus and humanity's efforts to stanch it continues.

The pace of the recovery will be driven by what we have termed the immunity gap (the percentage of the population lacking immunity to the virus) and the reluctance gap (the reluctance by a percentage of the population to engage in economic activity).

Greater immunity and reduced reluctance will drive a sharper recovery. Our central case projects a positive recovery path that will extend beyond 2021 before reaching the pre-pandemic trend of output.

Economic scenarios for 2021

	DOWNSIDE RISK 10%	BASE CASE 60%	UPSIDE SURPRISE 30%
Immunity gap	Little progress on infection immunity by end of 2021	Major economies achieve infection immunity by end of 2021	Major economies achieve infection immunity by mid-2021
Reluctance gap	Social and business activity hampered through 2021	Social and business activity normalizes by mid-2021	Social and business activity normalizes in the first half of 2021
Economic recovery	Labor market scarring possible given persistently high and long-term unemployment Inflation persistently below target Pre-pandemic level of output not achieved in 2021	Unemployment rate falling through year-end 2021 Inflation moves toward target in 2021 Pre-pandemic level of output reached by end of 2021	Unemployment rate falls and full employment is achieved by the end of 2021 Inflation overshoots in 2021 Pre-pandemic level of output reached mid-2021

Note: The odds for each scenario are based on the assessment of members of Vanguard's Global Economics and Capital Markets Outlook Team.

Source: Vanguard, as of November 30, 2020.

The long shadow of COVID-19

We expect history to show multifaceted effects from the pandemic on macroeconomic trends. The economic damage may prove temporary if the race against time to defeat the pandemic is effective.

However, the pandemic has permanently altered the landscape by accelerating such trends as digitalization of economies and deglobalization, and has influenced pivots in policy frameworks and the role of the state.

Some aspects of the global economy may ultimately stay as they are. In our view, these would include the contentious U.S.-China relationship, Vanguard's Idea Multiplier, and the likelihood of increasing innovation acting to boost productivity in the years ahead.

History to show varying effects from COVID-19

Accelerated

- Productivity
- Winner take all
- Deglobalization
- Inequality
- Location flexibility

Unaltered

- U.S./China
- Idea Multiplier

Temporary/Pivots

- Health care challenges
- Consumer reluctance
- Labor market scarring
- Accommodative policy
- Public debt
- Evolution of policy frameworks

Source: Vanguard, as of November 30, 2020.

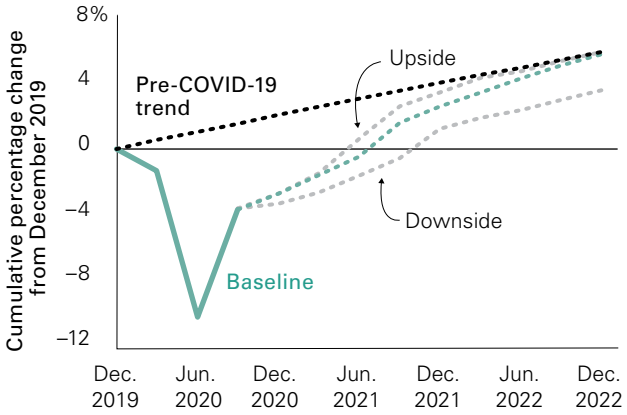
Global economic outlook

The unevenness of our cyclical growth outlook is reflected in the world's major economies and our outlook. China has been an outlier in its swift return to near pre-pandemic output, and we see that extending in 2021 with growth of 9%. We expect growth of 5% in the U.S. and 5% in the euro area. In emerging markets, we expect an uneven and challenged recovery, aggregating to growth of 6%.

United States. Prospects for an effective vaccine have improved, leading to a more optimistic timeline to close the immunity and reluctance gaps. Certain face-to-face sectors (about 12% of output) will continue to lag in recovery behind those sectors involving less personal contact.

In 2021, we anticipate a cyclical bounce in consumer inflation from pandemic lows near 1% to rates closer to 2% for a time—though not persistently—as the uneven recovery continues. We also expect the Fed will continue to use the monetary policy tools at its disposal, including increasing the pace of asset purchases when needed and keeping interest rates at the zero lower bound.

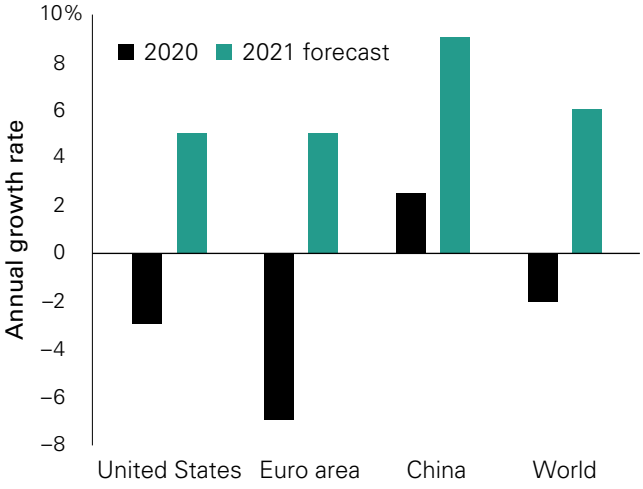
Recovery path to extend beyond 2021



Notes: The y-axis represents the level impact from the baseline, which is December 2019. The teal and gray dotted lines represent three forecasts: our base case and upside and downside scenarios. The downside scenario is characterized by a failure of the current restrictions to significantly reduce virus transmission in the short term. The upside scenario is characterized by a speedy large-scale vaccine distribution.

Sources: Vanguard and Refinitiv, as of November 30, 2020.

Global growth: Better in 2021



Notes: Growth for 2020 includes Vanguard estimates for the fourth quarter. Growth figures are rounded.

Sources: Vanguard and Refinitiv, as of September 30, 2020.

Euro area. We expect economic activity to gradually recover in 2021 as governments regain control over the virus. In our base case, we expect that growth will be about 5% in 2021 and that GDP will return to its pre-virus level by the end of the year—though still 2% below the trajectory we expected a year ago.

China. China is one of the few countries to successfully contain the virus and the only economy expected to return to pre-COVID trend levels by the end of 2020.

Chinese policymakers have expressed greater strategic emphasis on rebalancing toward domestic consumption as the driver of future growth and preparing for potential "slowbalization" or slowing in the rate of globalization.

Emerging markets. Emerging markets have been particularly vulnerable to the economic and medical consequences of the pandemic, and we expect this to continue until a vaccine is widely available. We would not be surprised if emerging markets in aggregate do not attain their pre-COVID early 2020 growth levels until mid-2023. However, much of developing Asia, including South Korea and Indonesia, may well buck this trend and return to early 2020 growth levels by mid-2021.

Investment outlook over the next decade

As we look to 2021 and beyond, our outlook for global asset returns is guarded. We expect equity markets outside of the U.S. to outperform, largely because of lower valuations and a higher dividend yield. Likewise, we are expecting value stocks to outperform growth over the next decade.

Against a backdrop of lower yields across the curve, the fixed income return outlook in the next decade has been revised downward from last year's projections, to 0.75%–1.75%. Expected returns for non-U.S. bonds are marginally lower than those of U.S. bonds.

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All investing is subject to risk, including possible loss of principal.

Investments in bonds are subject to interest rate, credit, and inflation risk.

Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets.

IMPORTANT: The projections and other information generated by the Vanguard Capital Markets Model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. VCMM results will vary with each use and over time.

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

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