Vanguard

JULY 2021

Market perspectives

Vanguard's monthly economic and market update

KEY TAKEAWAYS:

- Vanguard expects the pace of growth to slow a bit in the second half in the United States, though remain strong.
- We expect headline and core inflation figures above the Federal Reserve's 2% target in the medium term, with price rises moderating toward the end of the year.
- The Fed now foresees the timing of its first post-pandemic rate hikes in 2023, rather than in 2024.
- Vanguard looks for the most robust U.S. job growth numbers of the economic recovery to emerge in the third quarter.

Asset-class return outlooks

Our 10-year, annualized, nominal return projections, as of March 31, 2021, 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	2.6%–4.6%	16.7%
U.S. value	3.4%–5.4%	18.8%
U.S. growth	–0.5%–1.5%	17.7%
U.S. large-cap	2.4%–4.4%	16.4%
U.S. small-cap	2.4%–4.4%	21.7%
U.S. real estate investment trusts	2.4%–4.4%	19.5%
Global equities ex-U.S. (unhedged)	5.5%–7.5%	18.9%
U.S. inflation	1.4%–2.4%	2.4%

Fixed income	Return projection	Median volatility
U.S. aggregate bonds	1.4%–2.4%	4.5%
U.S. Treasury bonds	1.1%–2.1%	4.7%
U.S. credit bonds	1.8%–2.8%	5.7%
U.S. high-yield corporate bonds	2.2%–3.2%	10.2%
U.S. Treasury Inflation-Protected Securities	0.8%–1.8%	7.0%
U.S. cash	1.3%–2.3%	1.3%
Global bonds ex-U.S. (hedged)	1.3%–2.3%	3.8%
Emerging markets sovereign	2.1%–3.1%	9.9%

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 March 31, 2021. Results from the model may vary with each use and over time. For more information, see page 4.

Source: Vanguard Investment Strategy Group.

Region-by-region outlook

Growth to slow but stay strong in the United States

United States. Vanguard expects the pace of growth to slow a bit in the second half in the United States though remain strong as positive health outcomes drive a broader reopening of the economy.

- Income support from enhanced unemployment insurance and fiscal stimulus is helping to drive spending in a second quarter in which growth could approach double digits.
- We continue to foresee full-year growth of at least 7%.

Euro area. Following a pandemic-induced double-dip recession in the euro area, high-frequency indicators point to a substantial bounce-back in the second and third quarters.

- Euro area growth will be driven by a rebound in consumption as restrictions on activity are gradually lifted.
- We foresee full-year growth around 5% and GDP reaching its pre-pandemic level in the first half of 2022.

China. Recent data reveal a slower-than-expected economic rebalancing in China, leading Vanguard to cut its full-year growth forecast from 9% to just above 8.5%.

- The pace of growth in both exports and investment moderated, as expected, as the government reined in infrastructure and property investment, and as the reopening of economies around the world cut into COVID-19-related exports.
- Consumption growth, as measured by retail sales, was weaker than expected at 12.6% in May compared with a year earlier.

Emerging markets. We continue to foresee full-year growth above 6% in emerging markets.

- We're watching virus developments in emerging Asia, where we expect full-year growth above 8%.
- Recent elections and polls around forthcoming elections are revealing concerns about slow growth and pandemic management in Latin America.

Prices expected to moderate toward year end

Strengthening demand boosts inflation

Inflation figures have risen sharply recently in the United States, a function of strengthening demand for goods and services as vaccination rates increase and the economy more fully reopens. Supply hiccups in certain industries have contributed as well. Vanguard continues to see supply-and-demand elements driving the price rises as transitory.

- We expect headline and core inflation figures above the Fed's 2% target in the medium term, with price rises moderating toward the end of the year, leaving our monetary policy forecast intact.
- Vanguard watches the core Personal Consumption Expenditures Price Index (PCE) most closely, as it is also the Fed's preferred measure for evaluating inflation in its assessment of monetary policy.
- A disinflationary trend in parts of Asia has disappeared, leaving inflation in emerging markets newly synchronous. Upticks in inflation have been recorded recently in China, Indonesia, the Philippines, and India, with inflation in other regions largely rising to above its pre-COVID pace.

No rate hikes expected until 2023

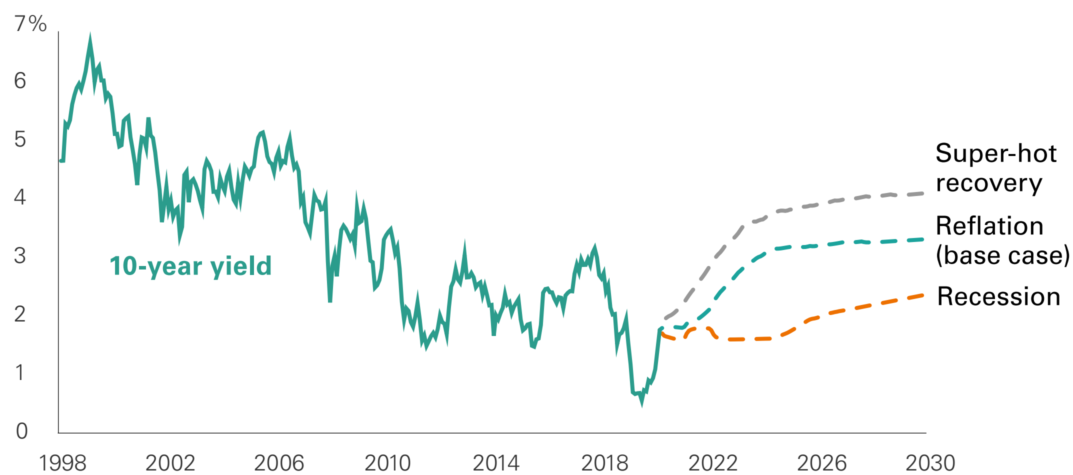
Fed foresees an earlier rate lift-off

The U.S. Federal Open Market Committee (FOMC) voted on June 16 to leave the target range for its federal funds rate unchanged at 0%–0.25% and its bond-buying program unchanged. A survey of FOMC members, however, suggested the Fed now foresees the timing of its first post-pandemic rate hikes in 2023, rather than in 2024 as per the previous survey, in March.

- Fed Chair Jerome Powell said in a news conference after the announcement that it was time to retire the oft-used phrase that it was "too early to talk about talking about" slowing the pace of the Fed's asset-purchase program.
- The Fed's current plan calls for the purchase of at least $80 billion of Treasury securities and at least $40 billion of agency mortgage-backed securities per month.
- Vanguard expects central banks, in our base-case "reflation" scenario, to slow and eventually stop their purchases of government bonds, allowing the size of their balance sheets as a percentage of GDP to fall back toward pre-pandemic levels.
- We don't expect shrinking central bank balance sheets to place meaningful upward pressure on yields. Indeed, we expect higher policy rates and smaller central bank balance sheets to cause only a modest lift in yields.

Three scenarios for 10-year bond yields

U.S. 10-year Treasury note



Sources: Historical government bond yield data sourced from Bloomberg. Vanguard forecasts, as of May 13, 2021, generated from Vanguard's proprietary vector error correction model.

More robust job growth coming

A gradual U.S. jobs recovery continues

Employment gains in May fell short of estimates for a second straight month as momentum slowed in the leisure and hospitality sector, suggesting labor supply constraints, cautious employers, or both.

- The Bureau of Labor Statistics' JOLTS report (Job Openings and Labor Turnover Summary) on June 8 revealed there were a record 9.3 million job openings in the United States in April and 6.1 million new hires, for a gap of a record 3.2 million.
- Vanguard expects the most robust U.S. job growth numbers of the economic recovery to emerge in the third quarter, as virus fears abate, child-care difficulties ease, and supplemental unemployment insurance expires in several states.
- We foresee the U.S. unemployment rate falling back toward 4% by year's end.

Connect with Vanguard® • advisors.vanguard.com • 800-997-2798

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.

Vanguard®

FAVEMOBF 072021