November 1, 2022 | Vanguard Perspective

Market perspectives: November 2022

Note: The points in this issue represent the house view of the Investment Strategy Group's (ISG's) global economics and markets team as of October 19, 2022.

Key highlights

- Vanguard believes the Federal Reserve (Fed) will raise the federal funds target rate to 4.5% by th end of the 2023 first quarter.
- Higher-than-expected core inflation in two recent reports has led Vanguard to increase our view the year-end level for core inflation in the United
- Vanguard expects the U.S. economy will grow around 1.8% over the next few quarters, while the euro area is expected to enter a recession before year-end.

Feedback

Asset-class return outlooks

Our 10-year, annualized, nominal return projections for the major asset classes, as of September 30, 2022, are shown below. Projections based on the full September 30, 2022, running of the VCMM, which will include additional U.S. sub- asset-classes, will be communicated in the December *Market Perspectives*. Please note that the figures are based on a 2.0-point range around the 50th percentile of the distribution of return outcomes for equities and a 1-point range around the 50th percentile for fixed income.

Equities	Return projection	Median volatility
U.S. equities	**4.7%–6.7%**	17.6%
Global equities ex-U.S. (unhedged)	**7.5%–9.5%**	19.1%
Global ex-U.S. developed markets equities (unhedged)	**7.2%–9.2%**	17.3%
Emerging markets equities (unhedged)	**7.0%–9.0%**	27.1%

Fixed income	Return projection	Median volatility
U.S. aggregate bonds	**4.1%–5.1%**	6.0%
U.S. Treasury bonds	**3.7%–4.7%**	6.2%
Global bonds ex-U.S. (hedged)	**4.0%–5.0%**	4.6%

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

Feedback

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Mod 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 June 30, 2022. Results from the model may vary with each use and over time. For more information, see the Notes section.

Source: Vanguard Investment Strategy Group.

Region-by-region outlook

United States

Vanguard expects a solidly positive number, perhaps above 2.5%, when the Bureau of Economic Analysis (BEA) reports its first estimate of third-quarter GDP in the United States on October 27.

- We expect that such a number will overstate the strength of the U.S. economy and will be driven in large part by international trade dynamics.
- Core aspects of the economy such as consumer spending and housing have weakened materially over the course of 2022. (According to the BEA's final reading, the U.S. economy contracted at an annual rate of –0.6% in the second quarter.)
- We expect that, given the monetary policy backdrop and a burgeoning shortfall in households' purchasing power amid high inflation, the economy will grow no better than trend (around 1.8% in the United States) over the next few quarters.

Euro area

Economic momentum has continued to deteriorate in the euro area in recent weeks, and Vanguard continues to expect a mild recession there this quarter, stretching into the first quarter of 2023.

- We continue to foresee full-year 2022 economic growth in a range of 2%–3%. Our 2023 forecast range is for a contraction of –0.5% to growth of 0.5%.
- European nations are adapting to the cut-off in natural gas supplies from Russia, with most achieving their storage targets ahead of time through alternative sources.
- We project that consumption will have to be reduced by around 15% this winter. We expect Germany and Italy—whose economies have had the greatest exposure to Russia among the "Big Four"—to drive the slowdown.
- European Union countries have allocated, on average, around 2.5% of GDP to offset a surge in energy prices.

United Kingdom

Bond and currency markets soundly rejected a United Kingdom government growth plan announced on September 23 that included the largest package of tax cuts in generations.

- Initial concerns about the proposed budget's effect on inflation and the government's financial stability caused bond yields to spike so quickly that the Bank of England intervened to ward off a potential crisis in the pensions market.
- Vanguard continues to foresee full-year 2022 growth in a range of 3% to 4%.
- For 2023, we anticipate a contraction of up to 0.5%.

China

An October 18 release of GDP and other data in China was postponed indefinitely and without explanation, signaling a potential de-emphasis on economic growth in favor of alternative policy objectives.

- The postponement was announced on October 17, near the start of the weeklong National Congress of the China Communist Party, a major policy gathering that takes place every five years and includes the selection of the party's secretary general, who also serves as president of China. Xi Jinping was named to the positions for the third time in consecutive five-year terms.
- Vanguard had expected the National Bureau of Statistics to report weaker-than-consensus third-quarter GDP growth of less than 2.5% compared with a year earlier. High-frequency data had suggested that activity started to pick up in late September after much of the quarter until then had been disappointing.
- We do foresee a recovery in the fourth quarter, however, as fiscal and monetary stimulus flow through the
- We foresee growth of 5% in 2023, a downgrade from our most recent view of 5.5% GDP growth.

Emerging markets

The growth story in emerging markets is one of relative resilience compared with that of developec markets. We foresee economic growth around 3.3% for both full-year 2022 and full-year 2023, belov consensus but higher than our developed-market views.

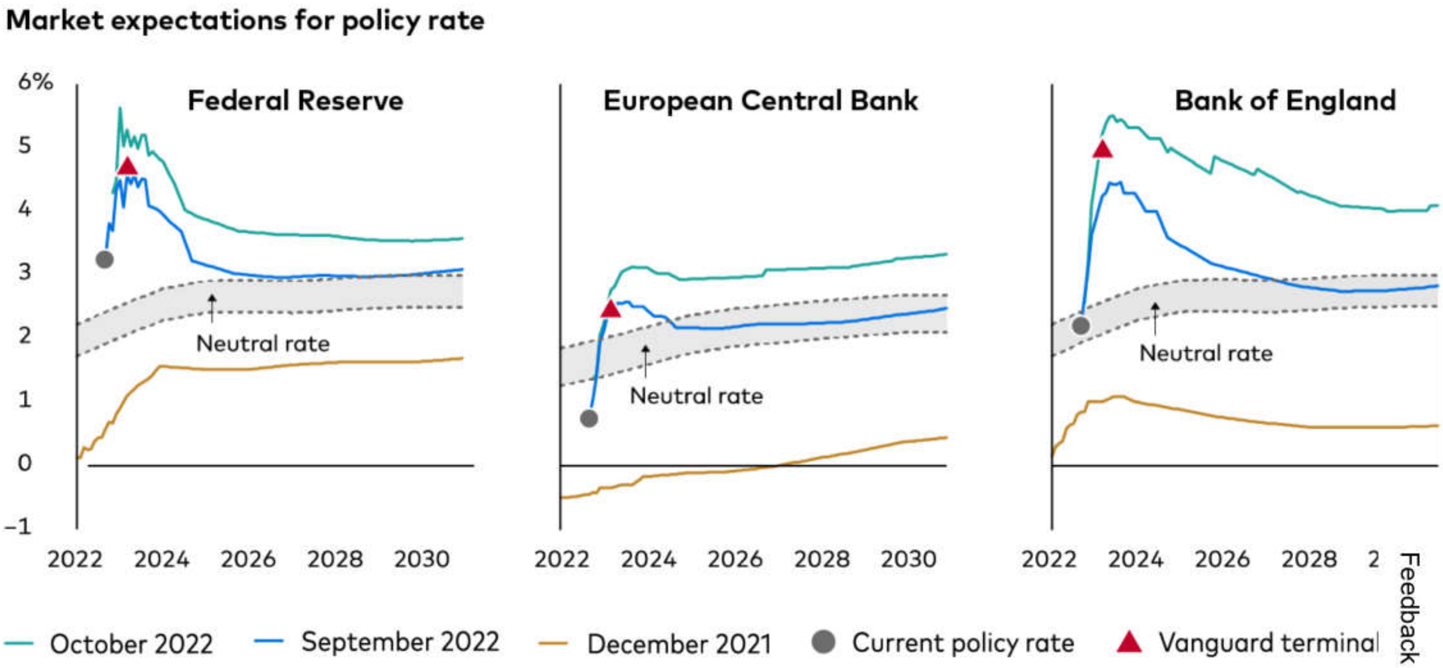
- Growth has been slower than it might have been, as rising global interest rates increased debt loads and forced fiscal discipline on emerging markets.
- Currencies have broadly held their ground as emerging market central banks acted sooner and more swiftly to protect them ahead of anticipated developed market rate increases.
- Emerging Europe remains most at risk of recession given energy supply challenges there.

Financial markets seek more certainty from policymakers

An ever-more-hawkish Federal Reserve has led Vanguard to increase its view for the terminal rate, or end point, for the federal funds rate target. In our base case, we believe the Fed will raise the rate to 4.5% by the end of the 2023 first quarter, from a current target range of 3.00% to 3.25%.

- We believe the Fed will keep its target at the terminal rate for some time to bring inflation back toward its 2% target.
- The Fed's next rate announcement is scheduled for Wednesday, November 2. We anticipate a fourth consecutive increase of 75 basis points, bringing the rate target to a range of 3.75% to 4.00%.
- To return inflation to their 2% target, central banks in the United States, the euro area, and the U.K. have communicated the need to continue raising rates in earnest, such that high inflation does not become embedded into the economy.
- Investors need to brace themselves for shocks until markets are convinced that policymakers can succeed in bringing us back to a world of low and stable inflation.

Rising expectations for central bank interest rates



Notes: Market expectations for central bank policy rates at a given time are represented by one-month forward swap rates. U.S. swaps are based on published overnight federal funds rate indexes. Euro area swaps are based on the published euro overnight index average. U.K. swaps are based on published overnight bank rate indexes. Neutral-rate ranges are Vanguard estimates. The neutral rate is the level at which policy interest rates would neither stimulate nor restrict an economy. Estimates of the neutral rate are determined by long-term economic factors and are subject to a wide band of statistical uncertainty. Estimates of the nominal neutral rate assume inflation of 2% in the United States, 1.8% in the euro area, and 2% in the United Kingdom. The Vanguard terminal rate is our view of the level at which central bank policy rates will peak during their interest rate tightening cycle.

Source: Vanguard analysis, as of October 14, 2022.

Inflation levels continue to surprise

Higher-than-expected core inflation in two recent reports has led Vanguard to increase our view of the year-end level for core inflation in the United States. Core inflation in the September consumer price index (CPI) report surprised to the upside for a second consecutive month, rising by 0.6% from August and 6.6% compared with a year earlier, the highest level since 1982. (Core inflation excludes volatile food and energy prices and thus reflects broader price pressures in an economy.)

- CPI including food and energy rose by 0.6% in September, higher than its 0.1% climb in August, despite a decline of 4.7% in energy prices.
- Recent inflation reports have led us to increase our view of where the core personal consumption expenditures (PCE) index—the Federal Reserve's preferred inflation indicator in considering monetary policy—will end 2022. We foresee core PCE around 4.5% at year-end compared with the end of 2021, higher than our forecast of 4.2% before the release of the September CPI report.

Strong labor numbers give the Fed more latitude

The unemployment rate fell to 3.5% in the United States in September, with the economy adding 263,000 jobs, the Bureau of Labor Statistics reported on October 7.

- Such a degree of job creation at this state of the business cycle signifies a still-strong labor mark and allows the Federal Reserve to continue to focus squarely on inflation in its policymaking.
- Vanguard believes that modest declines in job-churning, particularly in higher-wage occupations should help constrain wage-growth momentum in coming months.
- We foresee the unemployment rate climbing to 4.4% in the fourth quarter of 2023.

Notes:

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

- Diversification does not ensure a profit or protect against a loss. Investments in bonds are subject to interest rate, credit, and inflation risk.

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.