Vanguard

MARCH 2023

# Market perspectives

## Vanguard's monthly economic and market update

**Note:** Vanguard's views are as of February 27, 2023, unless otherwise stated.

### KEY HIGHLIGHTS

- Vanguard has **revised its views for U.S. economic growth**, inflation, and how high the Fed will ultimately need to raise its interest-rate target.
- Our base case remains that there will be a **shallow recession in late 2023**, but that the odds of a "later landing" have increased.
- We expect the Personal Consumption Expenditures Price Index to **end 2023 around 3%**.

### Asset-class return outlooks

Our 10-year annualized nominal return projections are shown below. The projections listed below are based on the December 31, 2022, running of the Vanguard Capital Markets Model® (VCMM). Please note the figures are based on a 2-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 | **4.4%–6.4%** | 17.2% |
| U.S. value | **4.5%–6.5%** | 19.8% |
| U.S. growth | **2.4%–4.4%** | 18.3% |
| U.S. large-cap | **4.3%–6.3%** | 16.9% |
| U.S. small-cap | **4.7%–6.7%** | 22.6% |
| U.S. real estate investment trusts | **4.6%–6.6%** | 20.3% |
| Global equities ex-U.S. (unhedged) | **6.7%–8.7%** | 18.5% |
| Global ex-U.S. developed markets equities (unhedged) | **6.5%–8.5%** | 16.7% |
| Emerging markets equities (unhedged) | **6.3%–8.3%** | 26.3% |

| FIXED INCOME | RETURN PROJECTION | MEDIAN VOLATILITY |
|---|---|---|
| U.S. aggregate bonds | **4.0%–5.0%** | 5.5% |
| U.S. Treasury bonds | **3.6%–4.6%** | 5.8% |
| U.S. credit bonds | **4.5%–5.5%** | 5.2% |
| U.S. high-yield corporate bonds | **6.1%–7.1%** | 10.2% |
| U.S. Treasury Inflation-Protected Securities | **3.0%–4.0%** | 5.0% |
| U.S. cash | **3.4%–4.4%** | 1.4% |
| Global bonds ex-U.S. (hedged) | **3.9%–4.9%** | 4.4% |
| Emerging markets sovereign bonds | **5.6%–6.6%** | 10.6% |
| **U.S. inflation** | **2.0%–3.0%** | 2.3% |

The probabilistic return assumptions depend on market conditions at the time of the running of the VCMM and, as such, can change with each running 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 December 31, 2022. Results from the model may vary with each use and over time. For more information, see the Important information section.**

**Source**: Vanguard Investment Strategy Group.

## Strong data could push U.S. recession down the road

"We're stuck in the messy middle." That's how Josh Hirt, Vanguard senior U.S. economist, described a U.S. economy that hasn't fully reacted to sharp Federal Reserve interest rate increases over the last year. It's a state that has led Vanguard to revise its views for U.S. economic growth, inflation, and how high the Fed will ultimately need to raise its interest-rate target.

"Activity has weakened in the most interest rate-sensitive sectors of the economy," Hirt said. "But core areas are still showing resilience. We are in this in-between period where the impact of rates has not fully worked through the economy."

That analysis is informed by a proprietary model, the Vanguard Leading Economic Indicators Index (VLEI), created to infer developing economic trends. VLEI incorporates a broad array of the most significant variables on housing, the consumer, manufacturing, financials, expectations surveys, price levels, interest rate spreads, and major economic indexes compiled by the Federal Reserve and other agencies. Within VLEI, each variable is assigned a weight based on its historical correlation with economic activity and its lead-time predictive power.

## What VLEI is signaling now

Our index shows that the most interest-rate-sensitive indicators have reacted to the Fed's changes in policy rate and started to turn red and yellow (top right section of the dashboard shown on page 3 indicating weak and slowing activity, respectively). Notably, they include indicators on home prices, financial conditions, and the purchase of big-ticket items. What we haven't seen yet is a deterioration in indicators that respond to more restrictive policy later in a business cycle, such as consumption and the labor market. They continue to indicate strong activity.

"With the Fed expected to continue raising rates and the hikes it has already made working their way through the economy, we expect to see more red and yellow among these indicators in the months to come," said Vytas Maciulis, a Vanguard U.S. economist who works closely with the model. (See the bottom right section of the dashboard.)

For context, the left side of the chart reflects activity leading up to and during the global financial crisis. The Fed began raising rates in the second half of 2004 and we started to see significantly more red and yellow at the top of the VLEI dashboard two years later. We see a similar pattern developing in recent data.

## Implications for our outlook

Given the above-trend activity in some core leading indicators, it could take longer for the business cycle to turn, and we have adjusted our outlook to reflect that.

Our base case remains that there will be a shallow recession in late 2023, but that the odds of a "later landing" have increased. The economy should nevertheless post GDP growth of around 0.75% this year—half a percentage point higher than our previous expectation—and just shy of 2% next year.

## Unemployment slated to climb slightly

Stronger economic activity could lead to fewer job losses and more stubborn inflation readings. We expect the unemployment rate to climb a little more modestly from its current 54-year low to around 4.5%–5.0% by the end of this year and to be at a similar level at the end of 2024.

## More rate hikes ahead

The Fed will need to keep raising rates given this backdrop. We now see its rate target peaking in a range of 5.50%–5.75%. "Our outlook has held that stubborn inflation would require restrictive policy well into 2024," said Hirt. "We believe the current state of the economy is providing evidence that this will indeed be necessary."

## It will take longer to meet the Fed's inflation target

We expect the Personal Consumption Expenditures Price Index (the Fed's preferred inflation yardstick) to end 2023 around 3% before falling closer to the Fed's 2% target in 2024.

## Core of the economy is showing resilience

### Dashboard of Vanguard Leading Economic Indicators Index


**Notes:** For a given positively correlated variable in VLEI: red indicates weak activity, yellow indicates slowing activity, and green indicates strong activity. (The relationship is reversed for negatively correlated variables, or those that move in the opposite direction from that of the activity being measured.)

Data are from January 2006 through December 2009 and from January 2020 through February 2023.

**Source:** Vanguard.

All investing is subject to risk, including the possible loss of the money you invest.

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

Investments in stocks and 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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