NOVEMBER 2019

Market perspectives

Vanguard's monthly economic and market update

KEY TAKEAWAYS:

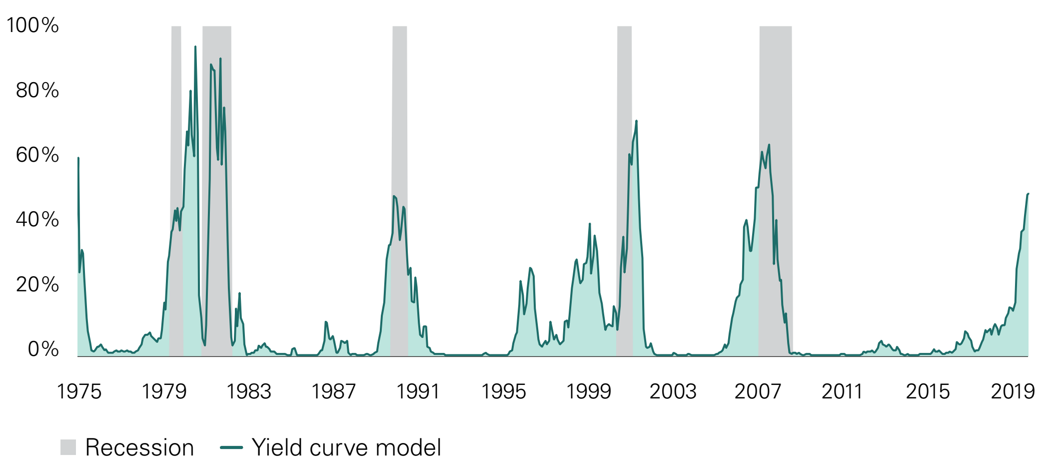
- The likelihood of a shallow recession in 2020 is more than 50%, but the risk of a more severe recession is only 10%.
- The Fed may cut rates once more in 2019 and make at least one further cut in 2020.
- The U.S.-China trade breakthrough leaves the thorniest issues unresolved.
- Our forecast for real U.S. economic growth in 2020 has been cut to 0.5%–1.5%.
- We expect unemployment rates to remain broadly stable and labor markets to remain relatively tight in the year ahead.

More than a 50% chance of a U.S. recession in 2020

Growth expected to slow down in the U.S. and abroad next year

- Vanguard expects global growth to continue to soften over the next 12 months, owing to trade tensions and policy uncertainty.
- In the **United States**, Vanguard now sees the likelihood of a shallow recession in 2020 being above 50%, with the risk of a more severe recession remaining a 10% probability.
- We've cut our forecast for real U.S. economic growth in 2020 to 0.5%–1.5%—a more bearish view than economists' consensus estimates.
- Vanguard is also more bearish than the consensus in our view of growth in the **euro area**, where manufacturing weakness is spilling over into supply chains and the services sector, especially in **Germany**, which we expect to enter a technical recession.
- Vanguard places a 35%–40% probability on a euro-area recession over the next 12 months.
- We see risk to the downside for 2020 growth in **China** without further stimulus or a rollback in tariffs but a meaningful U.S.-China trade deal could result in greater-than-anticipated growth.

Implied 12-month recession probability



Source: Vanguard calculations, based on data from Federal Reserve Bank of St. Louis and the U.S. Board of Governors of the Federal Reserve System.

One more Fed rate cut in 2019?

Monetary policy continues to evolve

- Vanguard now expects at least two further cuts to the Federal Reserve's target for its federal funds rate, with at least one cut likely in 2019 and potential further cuts dependent on trade tensions and the shape of the yield curve.
- In our baseline economic scenario, we see the **Federal Reserve** cutting the target for its federal funds rate to 1.125%, from a current target of 1.75%–2.0%—a view more in line with scenarios priced in by the bond market.
- Vanguard anticipates monetary policy to turn expansionary for the rest of the year in **emerging markets**, especially in emerging Asia and Latin America, where growth has continued to disappoint.
- We see the **Bank of England** keeping its bank rate at 0.75% until there is greater clarity on Brexit developments.

Trade tensions ease

Trade tensions and policy uncertainty will drive continued softening in global growth over the next year

- The **U.S.-China** trade breakthrough is a positive for its change in tenor, but one that leaves the thorniest issues unresolved.
- The deal leaves for the future negotiations over structural issues such as the forced transfer of U.S. technology to Chinese companies and the Chinese government's active role in the economy through industry subsidies.
- While Vanguard remains pessimistic that the United States and China will reach a meaningful resolution on trade, we don't expect significant escalation in tariffs.
- Vanguard sees the likelihood of the United States and the **European Union** trading threats around auto tariffs but not imposing any tariffs before negotiating further.

Repo market issue just a hiccup

The Fed has effectively suppressed recent volatility in the repo market

- The Fed stepped in to quell a mismatch in supply and demand for cash that caused the effective federal funds rate to rise above the high end of the Fed's target range briefly in September, and for repurchase agreements, or "repos," to briefly yield as high as 8%.
- Pressure in the market for repos—agreements representing overnight secured loan transactions—arose when corporations paid quarterly taxes as a large Treasury auction settled on dealers' balance sheets.
- The September episode represents a "plumbing issue" and not a credit event.

Weakness in wage growth

Labor markets to remain relatively tight in the year ahead

- With most major economies expected to operate near full capacity, we expect unemployment rates to remain broadly stable, but concern is growing that the labor market may have peaked, given forward-looking survey data.
- Vanguard sees weakness in **U.S. wage growth** after several months of gains as likely an anomaly.
- We see tentative weakness in the **European labor market**, particularly in Germany.
- Vanguard sees labor force participation persisting at levels above Congressional Budget Office estimates over the next 15 years, presenting a potential upside to long-term U.S. economic growth prospects while tempering upward pressure on wages.

Inflation below Fed target

Inflation unlikely to accelerate as price expectations remain anchored

- Vanguard's outlook for global inflation remains mixed, as the weaker global growth outlook is offset by upward pressure from recently implemented tariffs.
- In the **United States**, we see the core Personal Consumption Expenditures Index rising in the second half of 2019 but remaining below the Federal Reserve's 2% inflation target.
- We see core inflation in the **United Kingdom** remaining close to 2% amid a tight labor market.
- In the **euro area**, we see the European Central Bank worrying about a collapse in medium-term inflation expectations, which have failed to move meaningfully higher despite recent stimulus.

Brexit deal near?

The United Kingdom and European Union agreed to a Brexit deal but the ultimate resolution is still uncertain

- The treatment of customs procedures in Northern Ireland has been one of the deal's most contentious issues.

The most attractive equity returns may be abroad

Asset class return outlooks

The 10-year annualized nominal return projections, based on market conditions as of June 30, 2019, are as follows:

Equities	
Global equities ex-U.S. (unhedged)	**6.5%–8.5%**
U.S. equities	**3.5%–5.5%**
U.S. real estate investment trusts	**2.5%–4.5%**

Fixed income	
U.S. bonds	**1.5%–3.5%**
U.S. Treasury bonds	**1.0%–3.0%**
Global bonds ex-U.S. (hedged)	**1.0%–3.0%**
U.S. credit bonds	**2.0%–4.0%**
U.S. high-yield corporate bonds	**3.0%–5.0%**
U.S. Treasury inflation-protected securities	**1.0%–3.0%**
U.S. cash	**1.0%–3.0%**

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

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. Distribution of return outcomes from the VCMM are derived from 10,000 simulations for each modeled asset class. Simulations are as of June 30, 2019.

Results from the model may vary with each use and over time. For more information, please read the following page.

Source: Vanguard Investment Strategy Group.

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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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